THE CONFEDERATE AND INDEPENDENT SIGNAL CORPS

An Abstract of a Thesis
Presented to
the Faculty of the Graduate School
Appalachian State Teachers College

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts in Social Studies

by
Thomas Oliver Ott
August 1963
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ABSTRACT ON THE CONFEDERATE AND INDEPENDENT SIGNAL CORPS

The Confederate Signal Corps and the Independent Signal Corps are two organizations in the Civil War which are cloaked in general ignorance. In fact, several leading historians on the Civil War confessed their lack of knowledge, or even general knowledge, about the Confederate Signal Corps (the Independent Signal Corps was not mentioned since its existence is generally unknown). For these reasons, the problem of trying to gather the available information on the Confederate Signal Corps and Independent Signal Corps in order to comprehend them in their true perspective was undertaken.

The procedures used in this thesis are simply stated. First, The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies supplied a major primary source. The sixty-nine volumes in 130 books, each book averaging over 1,000 pages, were checked page by page due to the fact that the index is inaccurate. Second, the Historical Office of the United States Signal Corps was contacted in order to obtain all current information on the Confederate Signal Corps. Third, the Signal Corps Museum at Fort Monmouth, New Jersey, was contacted in order to get access to Albert J. Myer's Papers. Fourth, the very valuable Military Memoirs
of a Confederate by E. P. Alexander was studied. Fifth, many other primary sources on signal operations from battle situations to secret service missions and the very few available secondary works on the topic were checked.

There were several conclusions of general and specific nature. First, it was discovered that the Confederate Signal Corps had a sister organization, the Independent Signal Corps. Neither the Confederate Signal Corps nor the Independent Signal Corps can be treated as separate organizations because of their integrated activities. Second, it was found that both the Confederate Signal Corps and the Independent Signal Corps served with that type of quiet bravery that is seldom commended. Third, the scope (which was very wide) of the duties of the two Confederate signal corps was ascertained. Fourth, it was found that the Confederate Signal Corps probably was a major factor in the Confederacy's victory at First Manassas as well as other battle situations. Fifth, it was found that the Confederate Signal Corps and the Independent Signal Corps had a multitude of roles beyond their normal signal duties.
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INTRODUCTION

Since the beginning of time man has had to communicate with his neighbors. Armies are no different. Coordination, by verbal and visual expression, has always been a major factor in any military success and the Civil War was no exception; therefore, this thesis has endeavored to view objectively the Confederate Signal Corps and the Independent Signal Corps.

The reason for the selection of this topic is its relative obscurity—even among historians. For that reason, it has been necessary to investigate many Civil War sources. Naming only a few, The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies, The Official Records of the Union and Confederate Navies in the War of the Rebellion and E. P. Alexander's Military Memoirs of a Confederate were helpful in the primary research for the construction of this thesis.

The objectives of this thesis can be simply stated. First, the problem of the Confederate Signal Corps's background is treated briefly. Second, the organization, methods, ciphers and codes are recorded. Third, there is a coverage of the creation of the Independent Signal Corps and its relations with the Confederate Signal Corps.
Fourth, the Confederate Signal Corps in battle situations is given emphasis. Fifth, the secret service and naval duties of the two Confederate organizations for communications are related. Thus, by bringing these objectives into a clear relationship one should gain some scope of the historical roles of the Confederate Signal Corps and the Independent Signal Corps.

The right to reproduce maps and pictures has been obtained from G. P. Putnam's Sons (Joseph B. Mitchell's The Decisive Battles of the Civil War, 1957), Charles Scribner's Sons (E. P. Alexander's Military Memoirs of a Confederate, 1918), The MacMillan Company (David Donald's Divided We Fought, 1956), and Thomas Yoseloff (The Photographic History of the Civil War edited by Francis Trevelyan Miller, 1950). The visual material that the aforementioned publishers possess has been valuable in the construction of this thesis.
CHAPTER I
THE BACKGROUND OF THE CONFEDERATE SIGNAL CORPS

The year of 1859 found the United States in one of the most perilous situations of its young history. Edward Porter Alexander, on the other hand, was enjoying the serenity of scientific removal from the complex national deadlock at the United States Military Academy at West Point, New York. There, as an assistant instructor in engineering, he was assigned special duty with Assistant-Surgeon Albert J. Myer. This special duty began in October and entailed experimentation with various signal systems.¹

Using the Blaine telegraphic alphabet and the Morse code, Myer and Alexander began to formulate a new military signal system (the old system was one of immobile semaphore units which was mainly used in Europe).² For three months they experimented with torches, glasses and flags between the two experimental stations at Sandy Hook and Fort Hamilton (refer to the map on the next page to view Sandy Hook, New Jersey). Originally, Myer, when he was a medical student, had suggested a sign language for the deaf and

Thus, by applying this foreknowledge to possible military situations, a system was devised by the waving of a flag to the left for dot, and to the right for dash.

Many historical events transpired in the period from 1860 to 1861. Myer and Alexander introduced their signal systems to the War Department and to Congress. The system was demonstrated to the Congressional Military Committee. Shortly after these exhibitions were made, a signal bill passed Congress. However, 1860 experienced the culminations of many tragic trends—South Carolina seceded from the Union. In a period of a few months, six states in the South had followed the Palmetto State’s example. The border states, Alexander’s home state of Virginia was among them, were in the dilemma of dual loyalties. On April 12, 1861, the dilemma was resolved—Fort Sumter in Charleston Harbor.

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3 Walter Prescott Webb, The Great Plains (New York: Ginn and Co., 1931), pp. 81-82. Webb relates Myer’s activities immediately following his graduation thesis at Buffalo Medical College which was “A Sign Language for Deaf-Mutes.” After practicing as a physician for three years, Myer enlisted in the United States Army. Shortly afterwards, he was sent to New Mexico. There Myer observed a Comanche chief signal to his braves with a spear. Myer then began to make a synthesis between his knowledge of sign languages and the Indian chief’s motions with a spear. In 1856 Myer had the rudiments of a new system. By 1859 he was ready to devise and perfect a practical military signal system through experimentation.

4 Alexander, loc. cit.

5 Ibid., pp. 3-4.
was bombarded by the Confederates. Virginia followed the South and Alexander followed Virginia.

Alexander arrived in Richmond on June 1, 1861, and received a commission as captain in the Engineers. Engineer officers were in demand; but President Jefferson Davis, a former United States Senator from Mississippi, remembered Alexander's signal demonstrations. Davis, feeling a need for a signal organization, decided to assign Alexander the task of forming such a service for the Confederacy. 6

Alexander then began to form an organization which would see four years of action and which made many valuable military contributions. First, he enlisted the aid of E. P. Bryan in order to set up a small factory for the manufacture of signal equipment. 7 Second, he reported to General Pierre G. T. Beauregard, Confederate commander at Manassas, on July 2, 1861, to form a signal system there. The Confederates were positive that a battle would soon be fought since some use of the Federal enlistments for three months must be made. A strong indication of this Confederate inclination was the fact that Federal armies under the direction of General Benjamin Franklin Butler were being collected at Fortress Monroe; forces under the

6 Ibid., p. 13.

guidance of General Robert Patterson were being gathered on the upper Potomac River; General George B. McClellan was preparing a campaign in West Virginia; and, finally, General Irvin McDowell's forces were poised at Alexandria, Virginia.  

General McDowell had submitted a plan which called for enemy engagement early in July; however, due to objections expressed by General Winfield Scott, the Federal general-in-chief, and other obstructions facing an inexperienced army, the initial major conflict did not take place until July 21. This was valuable time for the equally inexperienced Confederates and the recently formed Confederate Signal Corps of unofficial status.

Feeling the anxiety of an impending battle, Alexander began to train men with all possible speed. Shortly afterwards, he began to construct signal posts. The topography was very rugged but not inoperable for signal purposes. First, at the farm of Wilcoxon, one mile east of Manassas, the first signal station was put into operation on a high rocky point overlooking a valley. This first station was made the central point in the signal system. From this

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point to the house of Van Ness, near Bull Run Valley, and to a point near the Stone Bridge on the Warrenton Turnpike, two straight six-mile ranges were cleared. Second, he placed a station north to a position three miles from Centreville. Third, the MacLean house was converted to a signal station on the Confederates' right flank. Fourth, a station was placed in Centreville near the Confederate headquarters.10 (Refer to the maps on the next two pages.)

The Federal strategy was for Patterson to hold General Joseph E. Johnston's Confederate forces in the Valley while McDowell engaged Beauregard at Manassas. Attempting to carry out his assignment, Patterson failed to contain his foe, and Johnston made junction with Beauregard on July 20, 1861; nevertheless, the Federals still had a possible chance for victory on July 21.

As the dawn of July 21 came, Beauregard ordered Alexander to the Wilcoxen signal station in order to observe the signal operations and Federal troop movements. Alexander was concentrating his attention on the station near the Van Ness house. Suddenly, Alexander noticed a brassy glimmer from the emerald green valley which divided the former and latter stations. Using his knowledge for a quick military diagnosis, Alexander understood that this

SIGNAL STATIONS AT FIRST MANASSAS
reflection had come from a brass field piece. This could only mean that McDowell was trying to turn the Confederate left flank. At that very moment the head of the Federal column was reaching Sudley Ford, which was eight miles from Alexander's observation post. Alexander notified the Confederates on his left and Beauregard of the movement. Confederate reinforcements were rushed to the scene, and the Federal offensive was spoiled due to the sharp eye of the Confederate Signal Corps.11

The Federals were, however, foiled only for the moment. At the same time, Alexander noticed an enormous cloud of dust rising about ten miles to the northwest. Believing that McDowell's stalled offensive might be changing its course in order to probe for a possible Confederate weakness, Alexander reported the movement. This dust turned out to be Johnston's wagon trains as they made their way from the Valley. However, the apprehensive Confederate Signal Corps still made the proper alerts to the Confederate commanders.12

The battle reached its critical state at approximately half past three o'clock on Sunday afternoon. The Federals were carrying the attack to the weary Confederates;

11 Ibid., p. 30.
12 Ibid., p. 31.
however, General Kirby Smith, in co-ordination with General Jubal Early's arrival and Major J. E. B. Stuart's sweep of the Union right flank, arrived on the field to turn the tide of battle for the Confederacy. The shocked, demoralized and disorganized Federals stampeded back to Washington. On the other hand, the equally disorganized Confederates could not follow up their advantage. The disorganization of the victorious army as well as the defeated foe was characteristic of both the First Battle of Manassas and the remainder of the Civil War.

The Confederate Signal Corps had been the first in the field; consequently, the North, alerted to the value of such an organization, put the United States Signal Corps on active duty with Major Albert J. Myer in command. In addition, there was an important change in the Confederate Signal Corps after First Manassas. Alexander gives the following account:

On the day after Bull Run I was appointed Chief of Ordnance of Beauregard's corps, and within a few days Johnston extended my office over the whole army, which, about this period, took the name ever afterwards used—"The Army of Northern Virginia." The enemy, about the same time, adopted their equally well-known title, "The Army of the Potomac."

My new duties largely absorbed my time, but I remained in charge of the signal service, the work being confined to sending instructed parties to all parts of the Confederacy where they might be of use. During the fall a "Department of Signals" was organised in

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Richmond, and the charge of it, with the rank of colonel, was offered me, but declined, as I was unwilling to leave the field. As head of a department I was soon made Major, and, later Lieutenant-Colonel of Artillery. Colonel William Norris of Baltimore became the Chief Signal Officer.\textsuperscript{14}

\textsuperscript{14}Ibid., p. 52.
CHAPTER II

OFFICIAL ORGANIZATION, METHODS, CODES AND
DUTIES OF THE CONFEDERATE SIGNAL CORPS

On April 19, 1862, the Confederate Congress passed a bill which conferred an official status upon the Confederate Signal Corps. This bill was activated by General Order Forty on May 29, 1862. Important Confederate Signal Corps characteristics were introduced through this governmental provision. First, ten officers, none exceeding the rank of captain, were appointed as officers in the Confederate Signal Corps; in addition, ten sergeants were appointed for duty in the service. Second, the Confederate Signal Corps was attached to the Adjutant and Inspector General's Department. Third, a signal officer was to be appointed to the staff of each corps commander; in addition, these officers could enlist the services of as many sergeants, including other noncommissioned officers, and privates as the situation might dictate. Fifth, the officers of the Confederate Signal Corps were mounted and had cavalry rights. The noncommissioned officers could be mounted through the quartermaster upon orders from the commanding general. Sixth, equipment was to be obtained through the Quartermaster's Department. Seventh, assistant-adjutant
generals and aides-de-camp could be instructed in contemporary codes and cipher if it was advisable. Eighth, the adjutant of every division was to be instructed in the signal system. Ninth, a quarterly report on the physical status and operations of the Confederate Signal Corps to the Adjutant and Inspector General was to be made by the senior signal officer of each army in the field. Tenth, an oath of loyalty to the Confederate Signal Corps was required. Eleventh, noncommissioned officers and privates were to receive an extra forty cents a day for performing their duties in the communications service.\(^1\)

The Confederate Signal Corps and its commander, Captain William Norris, found that the provisions made for it by the Confederate Congress were not extensive enough for efficient operations. For that reason, the Confederate Congress authorized the appointment of one major, which was immediately conferred upon Norris; ten first lieutenants, ten second lieutenants, and twenty more sergeants.\(^2\) Thus, the Confederate Signal Corps enlarged its basic structure.

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There were many different ciphers and codes used for the communications of messages by the Confederate Signal Corps. However, there seemed to be a basic standard for the communication of the many variations that might have been employed. During the day flags were utilized for signal purposes. During the night a copper or tin cylinder from fourteen to sixteen inches in length and from two to two and one-half inches in diameter filled with turpentine or any other inflammable material was extended on a pole from ten to sixteen feet in length. Then, after the inflammable material was burning and another similar cylinder was ignited and placed at the feet of the person transmitting the message, communications were made by the same system of motions used during the day. (On the next page is a picture of signaling at night.)

Intermediate and central signal stations were used by the Confederate Signal Corps. The duties of the intermediate stations were to transmit messages immediately and to be alert always to both its sister stations and to any possible enemy troop movements and messages. Each of these intermediate stations was equipped with strong field glasses and stakes for their support. Then the glasses would be concentrated on the nearest stations in order to pass

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A SIGNAL STATION AT NIGHT
messages to the next station with the least possible delay. This task was performed with one man at the glass reading the message to another man who would transmit it to the neighboring station. The central stations were, of course, less numerous than the intermediate ones. These central stations were located at the commanding general's headquarters and at his subordinate's headquarters. It was here, at the central stations, that most of the messages originated and terminated. 4

There was an agency formed to co-ordinate the various codes and ciphers that were used. This agency, the Signal Bureau, was under the direction of Captain William N. Barker. He maintained his own staff and was under the direct command of Norris. 5

Captain James F. Milligan, who was in charge of signaling in the Department of Norfolk and who later became the commander of the Independent Signal Corps, wrote a set of rules for the operation of signal stations. The exact date of these rules is unknown; however, they were probably created in the first years of the Civil War. First,

4 Ibid., 130.
no one other than the commanding officer of the post, the officer of the day, and other members of the Confederate Signal Corps could be admitted, without special authorization, inside a signal station. Second, all messages were to be recorded and understood perfectly before being forwarded to the next station. Third, all night signals must be official before they were transmitted. Fourth, the lookouts were instructed to check nearby stations every two minutes. If a message was to be transmitted, the receiving station could reply AA which meant "message observed;" Z which meant "hold on;" or, finally, "O. K." which meant "ready to receive." Milligan's rules referred to these prearranged signals with capital letters in order to distinguish them from a small letter in the alphabet with no independent value. Fifth, word contractions were used by omitting the vowels. For instance, such a word as received would become rcvd. Sixth, a monthly report on signal operations should be made by the post commanders to their district signal commanders.6

The Confederate Signal Corps consisted of thirty-one officers and 1,500 enlisted men.7 The commander of the

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Confederate Signal Corps and Chief of the Signal Bureau, as mentioned earlier, were William Norris and William N. Barker respectively. W. N. Mercer Otey, signal officer in the service of General Braxton Bragg; Captain R. H. T. Adams, commander of the signal service in General A. P. Hill's Corps; and many other signal officers served with distinction during the Civil War. (Refer to "The Confederate Signal Corps Commanded by Major William Norris" on the next page.)

The Confederate Signal Corps used various methods in the development of codes and ciphers. Signal messages were sent by means of flags, torches, or couriers. Sometimes the number combinations could get very complicated in order to have an alphabetical value; however, there was usually a set motion for the communication of a number. For instance, one could be indicated by waving the flag or torch to the left and returning it to an upright position; two could be indicated by a similar motion to the right; and three could be indicated by a dip to the front. ⁸ (Refer to page 20 for the "Table on the Communication of Ciphers and Codes by Flags and Torches."

The Confederate Signal Corps, in addition, was

# The Confederate Signal Corps Commanded
**By Major William Norris**

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<tr>
<td>J</td>
<td>unknown</td>
<td>X</td>
<td>1111</td>
</tr>
<tr>
<td>K</td>
<td>2342</td>
<td>Y</td>
<td>2222</td>
</tr>
<tr>
<td>L</td>
<td>2223</td>
<td>Z</td>
<td>unknown</td>
</tr>
<tr>
<td>M</td>
<td>2314</td>
<td>&amp;</td>
<td>unknown</td>
</tr>
<tr>
<td>N</td>
<td>23</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
responsible for coded and ciphered communications by courier which required the use of written messages. These letters were captured often by the Federals; therefore, a versatile method for such communications was developed. This was accomplished by the use of a key word which could easily be changed as a situation might dictate. The first letter in the key word was the vital element in determining the arrangement of a ciphered message, which may or may not be coded. For instance, if Manchester was selected as the key word, one would begin to find the cipher alphabet by placing one point on the m in a vertical alphabet and by following the same process on a horizontal alphabet. Then, after this initial step, a line is drawn from each point until they intersect. The point of intersection is the equivalent to the first letter in the English alphabet. Thus, the rest of the English alphabet would be determined by proceeding to the bottom of the column and then from the top to the point of intersection.9 (Refer to the illustration on the next page in order to ascertain the way this cipher system was organized.)

The Confederate Navy depended on the Confederate

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CIPHER SYSTEM USED BY THE CONFEDERATE SIGNAL CORPS
Signal Corps for many of its communications. Usually on each major vessel and on many of the blockade runners a signal officer was assigned duty. These signalmen would send ship to shore signals and ship to ship signals; in addition, they would observe and intercept enemy messages.\(^\text{10}\)

The chief duty of a signal officer on a blockade runner was one of deception. He was to detect any enemy signal rockets which might disclose their position. Reacting as fast as possible, the signalman would ignite similar rockets in order to confuse the enemy.\(^\text{11}\) Chapter VI covers the Confederate Signal Corps's naval operations in this area of service and in others as well.

Coastal observation was probably the most important single duty of the Confederate Signal Corps with regard to its naval activities. This service was performed by the use of a tower usually from thirty to sixty feet in height. Scanning from the top of this construction, a Confederate signalman would survey the surrounding area. There was a constant danger to these signal towers imposed by the blockading Federal vessels. (Refer to page 77 for a picture of a Confederate signal tower.)


CHAPTER III

OPERATIONS OF THE CONFEDERATE AND INDEPENDENT SIGNAL CORPS IN THE EAST AFTER FIRST MANASSAS

The Confederate Signal Corps had a long, colorful, and valuable career on the Eastern Front (better known as the War in the East) during the Civil War. This chapter is a sketch of some of those activities. The operations are divided between the Independent Signal Corps and the regular Confederate Signal Corps. One of their most valuable services, espionage, is not treated here since it is given a concentrated coverage in a later chapter.

After the First Battle of Manassas the Confederate Signal Corps and its counterpart, the United States Signal Corps, were preparing for a new campaign. The Confederate Signal Corps, which was indicative of the Confederacy as a whole, had to improvise and tax its ingenuity in order to keep pace with the superior resources of the Federal's organization for communication. For instance, it was shortly after the Civil War began that the North started to make use of balloons for observation. The South, as will be presented later in this chapter, could make only one attempt.

On March 17, 1862, the Federals with General George
B. McClellan in command launched an expected campaign at Fort Monroe, Virginia.\(^1\) The Confederate Signal Corps with the signal commander in the Department of Norfolk, Captain James J. Milligan, had kept the Confederacy well informed of the anticipated Federal maneuver.\(^2\) The famous Peninsula Campaign, which barely missed being a Federal success, had begun (see the maps at the end of this chapter).

Following up his initial success at Fort Monroe, McClellan decided to lay siege to Yorktown. This siege lasted from April until early in May. Major General John B. Magruder, commander of Confederate forces at Yorktown, carried out a masterful program of deception. Part of this deception required the use of "Quaker" cannons, logs camouflaged in order to give the appearance of real cannons; however, part of the Confederate success was due to the accurate and skillful observations and communications of Major William Norris and his assistant, Lieutenant A. L. Lindsay. Milligan mentioned their contributions in


his report to General Samuel Cooper. Thus, Major General Magruder and the Confederate Signal Corps collaborated to charge McClellan with the one element he could not afford—time.

During the month of May McClellan made a very cautious advance up the peninsula toward Richmond, the capital of the Confederacy. Then General Thomas "Stonewall" Jackson began his famous Valley Campaign (May 15 to June 17), which prevented Federal reinforcements from making a junction with McClellan's forces. In the meantime, Milligan began to feel the steady pressure of the invading Federals. The signal posts on the James River as far as Pig Point fell back with the Confederate evacuations at Fort Boykin and Harden's Bluff. Milligan gives the following account of signal lines on the James River and the Appomattox River during the Federal invasion:

There is] One post at Drewry's Bluff, communicating with Chaffin's Bluff; thence down the river to Gregory's farm, where there is a good view of the river for 15 miles. I found it impossible to get communication lower in consequence of the sinuous character of the river. The posts on the Appomattox are from Rhea's farm, on the western side of the Appomattox to Blanfield, on the eastern side of the river; thence to Clifton, on the same side of the river, at the obstructions, amid the fortifications covering them; thence to

old Blanford Church, near Petersburg; from thence to McIlwain's building, on Syracuse Street, near the custom-house, the headquarters in Petersburg; making in all six stations between the mouth of the Appomattox and headquarters.\textsuperscript{4}

By late June it was obvious that the Confederate defensive plan was beginning to change its complexion. First, McClellan lost the use of his naval support beyond Drewry's Bluff. Second, the Federal offensive was stalled at the indecisive Battle of Fair Oaks (heavy losses were inflicted on the Confederates). Third, General McClellan shifted his base of supply from White House to Harrison's Landing as the Confederates had applied pressure on the Federals with their success at Gaines' Mill. Fourth, General Robert E. Lee, who replaced the wounded General Joseph E. Johnston as commander of the Confederate forces during this campaign, launched a counteroffensive on June 26, 1862.\textsuperscript{5}

During this time the Confederate Signal Corps was trying to cope with superior Federal resources in the field of balloon observation. In fact, the Federal use of this


instrument for communication and observation was surprisingly extensive. General James Longstreet gives the following humorous Confederate attempt for a similar instrument:

The Federals had been using balloons in examining our positions, and we watched with envious eyes their beautiful observations as they floated high up in the air, well out of the range of our guns. While we were longing for the balloons that poverty denied us, a genius arose for the occasion and suggested that we send out and gather silk dresses in the Confederacy and make a balloon. It was done, and we soon had a great patchwork ship of many varied hues which was ready for use in the Seven Days Campaign.

We had no gas except in Richmond, and it was the custom to inflate the balloon there, tie it securely to an engine, and run it down the York River Railroad to any point at which we desired to send it up. One day it was on a steamer down on the James River, when the tide went out and left the vessel high and dry on a bar. The Federals gathered it in, and with it the last silk dress in the Confederacy. This capture was the meanest trick of the war and one that I have never yet forgotten.

The aforesaid counteroffensive drove the retreating Federals from Mechanicsville, Gaines' Mill, Savage Station, Frayser's Farm, and Malvern Hill. The latter position was engaged as the field of battle on July 1. It was at Malvern Hill that the Federals inflicted heavy casualties upon the determined Confederates. The Federal retreat was successful; however, their campaign was ruined. Harrison's Landing then became the scene of Federal withdrawals to General John Pope's army during the middle of August after McClellan

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vainly tried to convince Lincoln to open a new campaign via Petersburg (McClellan's army was still strong and had good morale). General Ulysses S. Grant used McClellan's plan to defeat Lee's Army three years later.  

Milligan was keeping a close surveillance on Federal activities. The possibilities of a renewed Federal offensive on the peninsula between the York River and the James River were likely. Perhaps the greatest menace to the Confederate Signal Corps during this period was the Federal naval raids on their signal stations. Being unarmed, the signalmen could do little more than run or be captured.

The problem of arming the signalmen was one that plagued the Confederate Signal Corps and, later, the Independent Signal Corps throughout the Civil War.

The Union's plight was not changed after the Peninsular Campaign. On August 9, 1862, General Jackson met and defeated the Federals and their commander, General Banks, at Cedar Mountain. Maneuvering their forces, Lee and Jackson forced their foes to retreat to a position

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north of the Rappahannock River. These two Federal setbacks gave the initiative to the Confederates. Then on August 25 Lee sent Jackson followed by another of his lieutenants, General Longstreet, around the Federal right flank. Thus, the famous team of Lee and Jackson began to execute one of their best planned movements of the Civil War—the Second Battle of Manassas.\(^9\)

Jackson, after he had General J. E. B. Stuart destroy Federal supplies at Manassas on August 26, took up a defensive position in the vicinity of the First Battle of Manassas. Pope's hopes were placed on the possibility of the arrival of reinforcements from McClellan's army in strong force.\(^10\) However, Jackson and Longstreet teamed to lure Pope into a trap which crushed the Federals. The former, carrying out his part of the plan, lured the Federals to attack him while the latter hit the unsuspecting foe on his left flank.\(^11\)

Lee immediately decided to follow up his success with an invasion of the North. He detached Jackson to Harper's Ferry in order to contain a Federal garrison there. In the meantime, McClellan had replaced Pope as the Federal's

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\(^9\) Commager, ed., \textit{op. cit.}, p. 170.

\(^{10}\) \textit{Ibid.}

commander. Lee, as he invaded Maryland early in September, was observed by Lieutenant Albert Cook of the United States Signal Corps.  

The Confederate Signal Corps played a large role in the latter tactical maneuver. Captain Joseph L. Bartlett, Jackson's chief signal officer during this campaign, kept good communications among the Confederate positions which surrounded Harper's Ferry. The major assignments of the Confederate Signal Corps were to keep Major General Lafayette McLaws, Brigadier General James A. Walker and General Jackson well informed about the immediate situation and to use Loudon Heights and Maryland Heights as convenient vantage points for observation and interception of Federal messages. However, the Confederate Signal Corps reached the apex of its responsibility by transmitting the plan for battle on September 14. The plan for battle was well executed by the Confederates as they were able to force the Federals to surrender Harper's Ferry. That order was as follows:

I. Major General McLaws will attack to sweep the enemy with his artillery and turn captured enemy batteries on them.

II. Brigadier General Walker will take in reverse the battery on the turnpike, and also sweep his artillery on the enemy and silence a possible battery on

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the island in the Shenandoah.

III. Major General A. P. Hill will move along the left bank of the Shenandoah and turn the enemy's left flank and enter Harper's Ferry.

IV. Brigadier General Lawton will move along the turnpike and support Hill.

V. Brigadier General Jones will create a diversion on the enemy's right flank.13

Lee moved steadily northward; however, McClellan, acting on information taken from the captured Confederate Order 191, imposed his army between the Confederates and their continued advance. Failing to smash the Confederates as they passed through mountain gaps, the Federals attacked the Confederates violently in the area of Sharpsburg, Maryland, on September 17, 1862. In the meantime, Jackson joined the main body of Confederates with his detachment of troops from Harper's Ferry. Failing to be routed by the aggressive Federals, Lee began to retreat on September 19.14

It was also during this time that Captain J. H. Manning, McLaw's signal officer, had an attack of erysipelas. Erysipelas is an acute infectious disease characterized by inflammation of the skin and a high fever. This, although it did not cause a complete break in communications,


14Commager, ed., op. cit., p. 171.
made efficient operation of the Confederate Signal Corps hard.  

On November 7 General Ambrose E. Burnside replaced McClellan, who had failed to smash the retreating Confederates after the Battle of Antietam. Burnside decided to make a drive at Richmond by crossing the Rappahannock River at Fredericksburg. The success of the maneuver depended upon Burnside's reaching Fredericksburg before Lee. Reaching his objective before Burnside, Lee was able to take a strong position behind Fredericksburg at Marye's Heights. The Confederates were now ready for the Federals if they crossed the Rappahannock.

The Confederate Signal Corps was rendering its usually effective service; however, if the Federals crossed the Rappahannock, a simultaneous signal for immediate action must be given. In this capacity the Confederate Signal Corps, unless at night when they could use their signal rockets, could not render this service with the necessary rapidity; therefore, a cannon, after a prearranged signal, would perform the duty of giving an immediate

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16Commager, ed., op. cit., p. 223.
alert.

On December 11 the Federals began to cross the Rappahannock. Instantly, the roar and reverberation of Confederate signal guns were heard—the battle had begun. The brave, rampaging Federals tried a futile frontal attack. On December 13, the Federals lost 12,653 men and the Confederates lost 5,309 men in one of the bloodiest battles of the Civil War. The next two days were spent burying the dead. By December 16 the defeated Federals were forced to retreat across the river.

Major General Joseph Hooker replaced Burnside as Commander of the Army of the Potomac. Hooker decided to launch a flanking movement that would eventually catch his quarry, the Confederates, in a perilous military situation. This plan entailed leaving Major General John Sedgwick at Fredericksburg to apply pressure on the Confederates on Marye's Heights. In the meantime, Hooker would cross the Rappahannock in order to cut the Confederates' line of retreat. The campaign began on April 27, 1863.


18Douglas Southall Freeman, Robert E. Lee (Charles Scribner's Sons, 1936), II, 320.

19Commager, ed., op. cit., p. 229.
Lee made a quick countermove against the Federals. He caught Hooker in his own flanking movement, and Sedgwick was repulsed from Fredericksburg on May 5. Turning his full attention on Chancellorsville, Lee began to apply pressure on Hooker; however, Hooker withdrew across the Rappahannock on May 6 before the Confederates could deliver a "death blow." ²⁰

The real tragedy of this campaign for the Confederates came on May 2. This was the death of General Thomas "Stonewall" Jackson. The Confederate Signal Corps played a role in this dramatic and costly loss. W. S. Gregory gives the following account:

At Chancellorsville he [Captain Richard Eggleston Wilbourne] and his signal corps were with their commander [Jackson] when he was wounded in advance of the infantry, and Captain Wilbourne dashed after Jackson whose bridle hand was broken and whose horse was rushing through the thicket within, seized the bridle, and lifted Jackson from his horse. Captain Wilbourne's cousin (and mine), Sergeant William Cunliffe, (Wilbourne's Signal Sergeant) was killed by the volley from his own men which wounded Jackson. After Jackson's death Wilbourne served on Lee's staff till the close of the war. ²¹

Douglas Southall Freeman, an outstanding Civil War historian, is an authority on the life of Lee and his lieutenants. For that reason, the following account concerns

²⁰Ibid., p. 260.

Wilbourne's forwarding of the news about Jackson to Lee:

Lee had heard Wilbourne without a comment or even an exclamation. At the announcement of Jackson's injuries, though Wilbourne said they were only flesh wounds, he could not contain himself. He moaned audibly and, for a moment, seemed about to burst into tears. With deep feeling he said, "Ah, captain, any victory is dearly bought which deprives us of the services of General Jackson, even for a short time."22

Lee, after his success at Chancellorsville, decided to try another invasion of the North. Moving northward, Lee began the famous Gettysburg Campaign (June 3 to July 4). Hooker, having a strong disagreement with General Henry W. Halleck, was replaced by Major General George G. Meade as commander of the Army of the Potomac. Then, while searching the peaceful little Gettysburg for shoes, the Confederates clashed with the Federals. Serious fighting began July 1, 1863. Then, after an indecisive battle on July 2, Major General George E. Pickett made his famous charge on July 3--the Confederate charge was unsuccessful. Lee started to retreat to the South on July 4.23 (Refer to the maps at the end of this chapter for this battle and others that were fought on the Eastern Front.)

The Confederate Signal Corps during the Battle of Gettysburg played a major role in the co-ordination of

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communications; even with this service the Battle of Gettysburg was a "comedy of errors." The contributions of the Confederate Signal Corps and the United States Signal Corps are given in the following account:

In the Battle of Gettysburg the Confederates established their chief signal station in the cupola of the Luthern Seminary, which commanded an extended field of operations. From here came much of Lee's information about the battle which surged and thundered to and fro until the gigantic wave of Pickett's charge was dashed to pieces against the immovable rock of Meade's defense on the third [and] culminating day. The Union Signal Corps was equally active in gathering information and transmitting orders. Altogether, for perhaps the first time in military history, the generals-in-chief of two large armies were kept in constant communication during active operations with their corps and division commanders. It was the Union Signal Corps with its deceptive flags that enabled General [Gouverneur K.] Warren to hold alone the strangely neglected eminence of Little Round Top, the key to the Federal left, until troops could be sent to occupy it.24

The value of services rendered by the Confederate Signal Corps was not completely unquestioned. Captain R. A. Forbes, an officer under the command of Milligan, charged Norris with being drunk on May 31, 1863, and with revealing information to the Federals concerning the signal alphabet. These charges were, of course, not only an implication of negligence but of traitorous activities; the charges were completely unfounded, and Norris was

fully acquitted by a military investigation. Forbes was censured for making such loose charges.25

The winter of 1863 to 1864 was a long one for the Confederates, who had reached the apex of their offensive power in two Northern campaigns, Antietam and Gettysburg; consequently, the South could only hope to prolong the war after those two failures. The enlisted man, on the other hand, was not always aware of his plight. There is a good example of this fact in the Confederate Signal Corps. H. W. Mason was a member of a Confederate signal station on Orange Mountain in Virginia. He gives the following account of his social activities during that winter:

Across the field was Bob Salis' place and his pretty daughter, over the hill was Bushrod Brown and his beautiful Epperson girls. At Rapid Ann Station was Miss Genevieve Peyton, and on the mountain side the misses Terrell. Down near the river was the regiment of Barkdale's Mississippians, in one camp of ninety men seventy-five were good fiddlers. I danced three nights out of the week, and went courting two out of the other four.

General Lee would come up and spend hours studying the situation with his splendid glasses; and the glorious Stuart would dash up, always with a lady and a pretty one, too. I wonder if the girl is yet alive who rode the general's fierce horse and raced with him to our station. The great Gordon came up and showed us how to steady the eyes with the fingers so as to look a long time. Old General Ewell, with his

old flea-bitten gray coat and crutches, was a frequent visitor.26

On March 3, 1864, President Abraham Lincoln ordered General Ulysses S. Grant to Washington and placed him in supreme command of all Federal forces in the field. Grant was now ready to put a victorious plan into operation. This plan called for General Benjamin F. Butler to threaten Richmond from the peninsula; Major General Franz Sigel to harass the Confederates in the Shenandoah Valley; and General William T. Sherman to destroy the Army of the Tennessee.27 In fact, Grant fully understood that the success of the different segments of this plan was contingent upon the destruction of the Army of Northern Virginia; therefore, he determined to maintain close coordination with General William Tecumseh Sherman's Southern offensive.

On May 4 Grant launched his Wilderness Campaign. This campaign stopped at Cold Harbor in June. The Federals lost many men in his "hit and slide" tactics; however, the Confederacy lost men that they could ill afford.28

On October 19, 1864, the Battle of Cedar Creek was fought; however, the battle was a vain attempt by the South to allay the destruction of the Army of Northern Virginia which came on April 9, 1865, when Lee agreed to Grant's surrender terms (the official surrender came on April 12, 1865). Part of the Confederate failure to gain a victory at Cedar Creek was due to the fact that a message of the Confederate Signal Corps was intercepted by the Federals. The following is an account of that message and battle:

A most important part of the Signal Corps' duty was the interception and translation of messages interchanged between the Confederate signalmen. Perhaps the most notable of such achievements occurred in the Shenandoah Valley in 1864. On Massanutten, or Three Top Mountain, was a signal station which kept Early in touch with Lee's army to the southeastward, near Richmond, and which the Federals had under close watch. Late in the evening of October 15th, a keen-eyed lieutenant noted that "Three Top" was swinging his signal torch with an unwonted persistency that be-tokenoned a message of urgency. The time seemed interminable to the Union officer until a message began, which he read with suppressed excitement as follows: "To Lieutenant-General Early. Be ready to move as soon as my forces join you, and we will crush Sheridan. Longstreet, Lieutenant-General."

Sheridan was then at Front Royal, en route to Washington. The message was handed to General Wright, in temporary command, at once, and was forwarded by him to Sheridan at midnight. The importance of this information is apparent, yet Early took the Union Army completely by surprise three days later, at daybreak of October 19th, although the tide of the morning

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defeat was turned to evening victory under the inspiration of Sheridan's matchless personality.\textsuperscript{30}

The Independent Signal Corps which was commanded by James F. Milligan, who received the rank of major with his new command, was a very efficient organization. Milligan served in the Department of Norfolk until early in 1863; however, it was around that time that he took command of the Independent Signal Corps. The creation of this organization had probably been prompted by Lee who had decided that such an organization was needed in order to relieve the operational bottleneck in Virginia; therefore, the Independent Signal Corps was completely divorced from any connection with the Confederate Signal Corps.

According to the annual quarterly report given by Milligan on April 5, 1864, the First Company was commanded by Captain N. W. Small, who was later replaced by Lieutenant R. A. Mapp, with four other officers, nine noncommissioned officers and 109 privates. The Second Company was commanded by Captain E. G. DeJarnette, with four other officers, nine noncommissioned officers and 110 privates. Petersburg was the headquarters for the Independent Signal Corps. From this point the signal line extended along the Appomattox River to City Point on the James River to

\textsuperscript{30}Greely, \textit{op. cit.}, pp. 326, 328.
Drewry's Bluff.\textsuperscript{31}

Naval raids were a constant threat to signal stations. On April 11, 1863, a raid was made against those stations. Here the telegraph operators, who were out of the jurisdiction of both the Independent Signal Corps and the Confederate Signal Corps, made an error in giving the proper alarm. For that reason, the station at Drewry's Bluff, which was the station being raided, was not properly defended. Major Milligan was critical of this system; however, the system of telegraphy remained as an independent agency for the entire Civil War.\textsuperscript{32}

In addition to the duties of the Independent Signal Corps already mentioned, it would involve itself in secret service duties and security measures; furthermore, it gave very close observation to the Virginia area. For that reason, the main activities of the Independent Signal Corps are in the Chapter entitled, "Secret Service and Security Duties of the Confederate and Independent Signal Corps."


THE SECOND
* BATTLE OF *
MANASSAS

LEGEND:
- National Military Park Headquarters
- Union attack Aug. 29, 1862
- Union attack Aug. 30, 1862
- Confederate attack Aug. 30

- Roads
- Trails
- Civil War Routes
- Modern Routes
- Old & New Routes
- Canal Etc.
THE BATTLE OF ANTIETAM

LEGEND:
- CONFEDERATE LINES
- Union Line, Sept 17, 1862
- CONFEDERATE RIFLES*
- WOODS, BATTLEFIELD
- MODERN ROUTES
- OLD ROUTES
- National Military Park
- Battlefield Tour Route

SCALE OF MILES

0 1 2 3 4 5
THE BATTLE OF FREDERICKSBURG

LEGEND:
ROADS
- Civil War Routes
- Modern Routes
- Old & New Routes
- Confluent
- National Military Park Headquarters

SCALE OF MILES
THE VIRGINIA CAMPAIGN OF 1864

A. THE WILDERNESS, MAY 5-6
B. SPOTSYLVANIA, MAY 8-19
C. NORTH ANNA, MAY 23-24
D. TOOTOOTOMAY, MAY 30
E. COLD HARBOR, JUNE 3

SCALE OF MILES

[Map depicting various locations and battles of the Virginia Campaign]
CHAPTER IV

THE CONFEDERATE SIGNAL CORPS IN THE WEST

The Confederate Signal Corps exemplifies the obscurity of the War in the West. That is not to say that the War in the West was not vitally important—it was; however, it was neglected in some respects. For instance, the War in the East with Virginia the key, took priority over the War in the West. For that reason, the Confederate Signal Corps was not as well organized or equipped in the West as in the East.

General Albert Sidney Johnston, who was the commander of the Confederates in the West, found a very hard task facing him. He had to hold a line which extended from the mountains of eastern Kentucky and Tennessee westward across the Mississippi River to the Kansas boundary. He had to face superior Federal forces under Brigadier General Carlos Buell at Louisville, Kentucky, and General Halleck at St. Louis, Missouri. ¹

Halleck began the attack by moving against Fort Henry on the Tennessee River and Fort Donelson on the Cumberland River early in February, 1862. The field

commander, Brigadier General Grant, moved the Federal forces against Fort Henry; however, he found that Brigadier General Loyd Tilghman had evacuated most of his forces to Fort Donelson. This was partly due to the misfortune of an engineering blunder—Fort Henry was flooded by the rising waters of the Tennessee River. The fort surrendered on February 6. Fort Donelson, on the other hand, was well fortified and garrisoned; however, this fort surrendered on February 16 after the Confederates had failed to break the Federal siege.²

Following these two Confederate defeats, the Federals moved against the Confederates at Corinth, Mississippi. Seeing his chance for a surprise attack against the Federals, General Albert Sidney Johnston exploited the Federals' exposed position at Pittsburg Landing in the vicinity of Shiloh Church in Tennessee. The surprise attack against the Federals was launched on April 6, 1862. At first, the Confederates pushed the bewildered Federals back; however, General Grant launched a counterattack that forced the Confederates to withdraw to their original position, Corinth. It was during this battle, the Battle of Shiloh, that General Albert Sidney Johnston received a

fatal leg wound.\(^3\) (Refer to the maps at the end of this chapter for this battle and others.)

The Confederate Signal Corps, which still remained in an unofficial status, received recognition from General Pierre G. T. Beauregard, the new commander of the Confederate forces, for its service. Captain E. H. Cummins, who was the signal officer assigned to serve on General Beauregard's staff, was employed actively during the two days of the Battle of Shiloh.\(^4\)

The Confederates also lost Island Number Ten, so named because it is the tenth island below the mouth of the Ohio River, on April 7. This island was important because it was an obstacle to the naval operations of the Federals on the Mississippi River. This island was forced to surrender after Federal vessels had isolated it by running its batteries. General John Pope was the Federal commander in charge of this military operation.\(^5\)

Shortly after the Federal victory on Island Number Ten, General Pope's forces joined the main body of Federals

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at Pittsburg Landing. From this point, General Halleck launched a campaign against the Confederates and their commander, General Beauregard, at Corinth; however, the Confederates were able to evacuate the city successfully, owing to the ingenious deception of General Beauregard, before the arrival of the Federals on May 30.\(^6\)

President Jefferson Davis took a disheartened attitude toward General Beauregard's retreat, which changed the Confederate defensive position from Corinth to Tupelo, Mississippi, a position fifty-two miles south of Corinth.\(^7\) This misconception of military tactics by Davis later plagued General Joseph E. Johnston's relationship with him. This pressure, normal military pressures, and poor health caused Beauregard to lose his command. His replacement was General Braxton Bragg, who took command of the beleaguered Confederates at Tupelo on June 20, 1862. Beauregard took command of the harbor defenses at Charleston, South Carolina.

The remainder of 1862 saw a few significant events take place. First, on October 3 and 4 the Confederates vainly tried to push the Federals out of Corinth. Second, Perryville, Kentucky, was the "Antietam of the West" for


\(^7\)Ibid., p. 155.
both the North and South. This encounter occurred on October 8. This significance was that Federal forces under the command of General Buell stopped a possible Ohio invasion under the direction of General Bragg. Third, the Confederates were unable to stop the Federals under the command of General William Rosecrans in the Battle of Stone's River (this involved a campaign lasting from December 16, 1862 to January 4, 1863). Thus, the Confederates were unable to tarnish the earlier Federal gains; Bragg retreated to Tullahoma, Tennessee, on January 4, 1863, consequently, when he felt that his present position was no longer a safe one. This military maneuver brought Bragg under heavy pressure from President Davis.

In the meantime, the Federals were busy clearing the Mississippi River of Confederate strongholds during 1862. Methodically, the Federals captured Confederate outposts, New Orleans among them. The fall of New Orleans will be discussed in a later chapter. Now only two places, Vicksburg and Port Hudson, were keeping the Confederacy from being severed. From March 29 to July 4 the Vicksburg Campaign obtained the major publicity and attention on the

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Western Front.

Actually, the first major action began when Grant, who was the Federal commander in charge of operations in the Vicksburg Campaign, decided that the Federals must run the Vicksburg fortifications on February 13, 1863. This was essential to the overall strategy which called for General William Tecumseh Sherman to command a force above Vicksburg and for another one, synchronized with the first army, to make a wide southward swing to a point about thirty miles below Vicksburg. Then, after these aspects of the plan were carried out, the two forces would make a junction and lay siege to Vicksburg. Thus, naval support for the lower Mississippi River force had to be gained by running the Vicksburg batteries. It was in this naval feat that the Confederate Signal Corps did its part in a vain attempt to prevent the Federals from passing the Vicksburg batteries.¹⁰

At about eleven o'clock on the night of February 13, the Federal ship, Indianola, was moving down the Mississippi River. The sky was dark and threatening. No one aboard was positive of the destination of the ships; however, action or the possibility of action that night was a certainty. As soon as the Indianola came into sight of

the Vicksburg bluffs, the engines were slowed only to
insure the safe forward movement of the vessel.11

Secrecy was of the utmost importance to the daring
Federal mission. The first threat of discovery turned out
to be a flash of lightning and not a Confederate alarm
rocket; however, secrecy was revealed by the unexpected.
A Confederate soldier, tired of inactivity, picked up a
burning brand and tossed it into the slow, muddy waters
of the passing river. This incident, to the North's mis-
fortune, revealed the Federal flotilla as it moved down
the Mississippi River. Instantly, a picket gun was dis-
charged. This was followed by signal rockets which were
seen all along the shore line. Simultaneously, the Federal
vessels started down the river full speed ahead, and the
Confederate batteries began to open fire. The Federals,
although detected by the Confederates, were successful in
getting past the Vicksburg batteries.12

The daring of the Federals had been rewarded by
success; however, the Confederate Signal Corps aided in
passing the alarm so fast that Federal victory was in doubt
for a long time. Speed and quick reaction were consistent

11W. S. Ward, "How We Ran the Vicksburg Batteries,"
Magazine of History, XIV (1885), 602.
12Ibid., 603-604.
traits of the Confederate Signal Corps and the Independent Signal Corps during the entire Civil War.¹³

During the month of May, Grant's Federal forces were in full strength in the Vicksburg area.¹⁴ Then the Federals began a siege that reduced the food supply of Vicksburg to mule's meat and a surprising delicacy—rat. As time passed, however, it was obvious that General John C. Pemberton, commander of the Confederate forces in Vicksburg, could not hold Vicksburg any longer; therefore, he surrendered on July 4, 1863. Shortly afterwards, Port Hudson was captured. The entire Mississippi River was now in the hands of the Federals.

During the siege of Vicksburg the Confederate Signal Corps was able to break the Federal signal code. The breaking of the Federal cipher had been worked out on the principle of Edgar Allen Poe's "The Gold Bug,"¹⁵ by which a cipher may be translated by the frequent use of certain characters: For example, the letter e is used more often than any other letter in the English language. Thus, by

¹³Ibid.


determining which character appears most often in a cipher the letter e is discovered. 16

On July 3, 1863, Bragg retreated from Tullahoma (by way of Cowan) to Chattanooga. He made this movement because he feared Rosecrans would isolate him in a swing movement. W. N. Mercer Otey, Bragg's signal officer, gives the following account of the signal operations during this retreat and after it:

Pushing onward across the beautiful Sequatchie Valley and its forest of waving corn, we reached and crossed the Tennessee River at Bridgeport. Here I planted a signal station, and hurrying forward soon made another on an advantageous peak of Sand Mountain and opened communications with Bridgeport. Again I rode rapidly for Lookout Mountain and selected a desirable eminence and found my Sand Mountain's flag "O. K." I next called up Bridgeport. I was flagging messages twenty-five miles away. There remained only one more station to establish, and that was at our rendezvous.

Leaving Lookout Point in charge of four trusty fellows, I soon clattered down the mountain side. On reaching Chattanooga it took but a few minutes to establish my last station. My line was well established and working well to Bridgeport, thirty miles away. 17

Rosecrans crossed the Tennessee River in an attempt to outflank Bragg. On September 9, 1863, Bragg retreated to a position along Chickamauga Creek near Lafayette, Georgia. This flanking movement was well conceived by the


Federals' commanding general and his general staff. It was in connection with Rosecrans' flanking movement that the Confederate Signal Corps played a major role. Otey said:

A signal station I had established on Raccoon Mountain gave a full sweep of the Sequatchie Valley, enabling me to instantly detect any movement of the enemy made down that valley. A day had been appointed for Thanksgiving, and most of the general officers and their staffs were in attendance at church. Suddenly from Raccoon Mountain was flagged the information that a brigade of Federal infantry and a battery of artillery were moving down the valley under cover of Waldron's Ridge.

Bragg received the message of the immediate developments; however, he denounced the possibility of a Federal movement since his scouts had not reported it. Thus, Bragg failed to utilize the initial and reliable alarm. Otey continues his description of the Federal advance:

In the course of an hour or so came another message from Raccoon Station to the effect that the enemy were placing their guns in battery on the heights of Waldon's Ridge commanding Chattanooga. Again the message was dispatched to headquarters. Before a second doubt could be expressed the shells were flying through the streets of the city.

There was nothing left for us but to skedaddle, and skedaddle we did. One of our brigades, commanded by General Preston Smith, was in Will's Valley, on the western spur of Lookout Mountain. I was instructed to immediately send a message to Smith ordering his brigade to withdraw, as we were evacuating Chattanooga, and effect a junction with the main army at or near Rossville, distant five miles from Chattanooga.

18 Commager, ed., op. cit., p. 879.
19 Otey, op. cit., 130.
20 Ibid.
Otey had trouble communicating with the signal station on Lookout Mountain which was to forward the information to General Smith. It was nine o'clock that night when the message was to be forwarded. For some reason, however, no sign of signaling was being made from the station on Lookout Mountain. Mounting his horse, Otey discovered that like the five foolish virgins of Biblical fame his station had run out of oil for their lamps.

Otey had to deal with desertion as well as inefficiency in his signal operations. A lieutenant who was in charge of the Lookout Mountain station deserted. Otey feared that the lieutenant might have joined the Federals after his defection from the Confederacy. In that case, Otey was correct in his assumption that the Confederate Signal Corps's code that was being used with the Army of the Tennessee would be in jeopardy; therefore, the codes were changed. After the war it was proved that the lieutenant had been a deserter but not a traitor.21

After Rosecrans gained new territory, the Confederates sprang a counteroffensive, the Battle of Chickamauga, on September 20, 1863. This counteroffensive forced the Federals to return to Chattanooga and hold their position there. In fact, if General George H. Thomas, "The Rock of Chickamauga," had not stood his ground in the wake

21Ibid.
of apparent Federal defeat, even the Federal position at Chattanooga would not have been possible (part of Thomas' success was due to the timely relief of General Gordon Granger's forces).  

Bragg now decided that he would lay siege to Chattanooga in order to force the Federals to surrender. He took a defensive position south and east of Chattanooga along Lookout Mountain and Missionary Ridge. This was a practical plan, but it was improperly executed due to the fact that Bragg did not take effective action against Federal armies which were approaching to break the Confederate siege. Part of Grant's army, which had been victorious at Vicksburg, made junction with the besieged Federals at Chattanooga. Grant replaced Rosecrans as the Federal commander. The following is an account of the military situation and of the problems and position of the Confederate Signal Corps:

After Grant arrived and occupied Chattanooga, Bragg retired up the Cumberland Mountains and took up two strong positions—one upon the top of Lookout Mountain, overlooking Chattanooga from the south, and the other on Missionary Ridge, a somewhat lower elevation to the east. His object was to hold the passes of the mountain against any advance upon his base at Dalton, Georgia, at which point supplies arrived from Atlanta. Grant, about the middle of November, 1863, advanced with 80,000 men for the purpose of dislodging the

22Commager, ed., op. cit., p. 885.
23Ibid., p. 880.
Confederates from these positions. At the very summit of Lookout Mountain, "The Hawks Nest" of the Cherokees, the Confederates had established a signal station from which every move of the Federal army was flashed to the Confederate headquarters on Missionary Ridge. The Federals had possessed themselves of this signal code, and could read all of Bragg's messages. Hence an attempt to surprise Hooker when he advanced, on November 23rd, failed.24

After Federal victories at Lookout Mountain and Missionary Ridge, November 24 and 25 respectively, the Confederates withdrew to Dalton, Georgia. At this point, General Joseph E. Johnston replaced Bragg as the Confederate commander of the Army of the Tennessee. Bragg was then given the position of personal military advisor to President Davis.

The Atlanta Campaign lasted from May 7 until September 2. Sherman, the Federal commander after Grant's departure for a higher military command, planned to destroy Georgia's economy as well as the Confederate forces opposing his advance. Johnston's military genius, on the other hand, jeopardized Sherman's objectives. In a series of outstanding maneuvers which astonished the Federals, Johnston was able to threaten the Federals and withdraw unharmed; however, Sherman had a genius of his own that continually called for effective flanking movements.

Thus, Sherman was slowly winning the campaign because the cautious Confederate commander could not find the right time and situation for an effective counteroffensive.  

President Davis, on the other hand, could not understand Johnston's tactics, which called for retreat rather than engaging the enemy with the risk of total destruction. Davis ordered Major General John B. Hood to replace Johnston after the President's impatience for battle overcame him. The order was carried out on July 17, 1864.

Hood was a brave and daring commander; however, he displayed neither the caution nor the patience that Johnston had. In fact, the combination of his desire for a fight and the Confederacy's desire to maintain Atlanta insured a battle for that city. General Hood carried the battle to the Federals on July 20 and 22. The results were fatal to Hood's hopes of saving Atlanta; in addition, the South suffered heavy casualties. The Confederates evacuated Atlanta on September 1, 1864, and the Federals entered it on September 2.

In the meantime, Major Norris, commander of the

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26Ibid., p. 340.

27Ibid., p. 366.
Confederate Signal Corps, made an inspection in the West during August. This inspection carried him to Alabama, Mississippi, and eastern Louisiana.28

After being defeated at Atlanta, Hood decided to invade Tennessee in order to jeopardize the entire Federal gains made on the Western Front since the beginning of the Civil War. Sherman clearly saw the feasibility of such a plan; therefore, General Thomas was given a strong force and detached from the main body of Federals in Georgia. Thus, Sherman was able to continue his march through the South without any distraction.29

On November 30, 1864, Hood struck the Federals under the command of Major General John M. Schofield at Franklin, Tennessee. The Federals inflicted heavy losses on the Confederates in a hard fought engagement. General Schofield then withdrew to Nashville, Tennessee. Hood, still not deterred in his objectives, decided to try again to crush the Federals.30

Pushing on toward Nashville, Hood was now confronted


29 Horn, op. cit., p. 381.

30 Ibid., pp. 369-394.
with trying to defeat a Federal army under the command of Thomas. Although Hood was able to get into position on the south and east of the city, Thomas was ready for him with a force of about 50,000 men. Thomas, who was a Virginian loyal to the Union, was one of the North's most able generals. He exercised extreme caution in dealing with Hood's army, but on December 14, 1864, he began a counteroffensive that almost completely annihilated the Confederates. The anxiety of the Confederates can be indicated by a captured message which was probably the duty of the Confederate Signal Corps to deliver. That message read, "For God's sake drive the Yankee cavalry from our rear or all is lost."\(^3^1\)

General Richard Taylor was given command of the ragged, demoralized Confederates in Tennessee on January 23, 1865. Filtering from Tennessee to North Carolina, a Confederate force was assembled in Charlotte, North Carolina. On February 24, 1865, Johnston took command. He tried to assemble some sort of fighting force to oppose Sherman's lightly opposed march through the heart of the Confederacy; however, after a show of resistance at Bentonville, North

\(^{31}\text{James Harrison Wilson, Under the Old Flag; Recollections of Military Operations in the War for the Union, The Spanish War, the Boxer Rebellion, etc., (New York: D. Appleton and Co., 1912), II, 99-121.}\)
Carolina, the Confederates under his command were surrendered near Raleigh, North Carolina, on April 26, 1865. The last of the Confederate armies in the field surrendered on May 26, 1865.32

THE BATTLE OF SHILOH
THE SIEGE OF VICKSBURG

LEGEND:
- Roads
- Civil War Routes
- Modern Routes
- Old & New Routes
- Gunboat

Confederate Defensive Line
Union Line of Investment

National Military Park Headquarters
THE BATTLE OF
CHICKAMAUGA

LEGEND:
- September 15, 1862
- September 20
- Late Afternoon
- Civil War Routes
- Modern Routes
- Old & New Routes
- Controlling
- National Military Park Headquarters
- Battlefield Tour Route
THE BATTLES AROUND CHATTANOOGA

LEGEND:
- Preliminary Operations, including:
  A. Orchard Knob, November 23, 1863
  Battles of:
  B. Lookout Mountain, November 24, 1863
  C. Missionary Ridge, November 25, 1863
THE CAMPAIGN
* TO ATLANTA *

A. Resaca May 14-15, 1864
B. New Hope Church
   May 25-26, 1864
C. Kennesaw Mountains
   June 22-27, 1864
CHAPTER V

NAVAL OPERATIONS AND THE CONFEDERATE AND INDEPENDENT SIGNAL CORPS

The Confederate Signal Corps had definite naval duties as well as its other duties on the Western Front and on the Eastern Front. The signal duties entailed service at the main Confederate harbors; they demanded alert officers for signal service aboard blockade runners and regular naval vessels; and they required keen vigilance along the long, exposed Southern coastline and its many rivers.

Naval signals were similar to signals used in land operations; however, flags were used to a greater extent. The naval signals by flags had numbers ranging from one to nine. Using a preassigned combination, a phrase or even a sentence could be immediately transmitted.¹ (Pages 75 and 76 picture these color combinations and their linguistic values.)

The aforementioned duty, shore observation, was perilous for several reasons (on page 77 is a picture of a Confederate signal tower used for such an observation).

NAVAL COLOR COMBINATIONS FOR CIPHERS & CODES
BASED ON THE NUMBERS ONE THROUGH NINE
### CONFEDERATE NAVAL SIGNALS BASED ON THE NUMBERS ONE THROUGH NINE

<table>
<thead>
<tr>
<th>Number combinations</th>
<th>Meaning</th>
<th>Number combinations</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.......Action, prepare for</td>
<td>52.......Hail, keep within</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.......Action, commence</td>
<td>53.......Lights, show none tonight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.......Action, withdraw from</td>
<td>54.......No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.......Assistance, I am in want of</td>
<td>123.......Pilot, I am in want of</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.......Board the enemy</td>
<td>124.......Prepare for battle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.......Boilers are damaged</td>
<td>125.......Prepare to board</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.......Captain, repair on board vessel making signal</td>
<td>213.......Prize, destroy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.......Coal, I am in want of</td>
<td>214.......Prize, take in tow</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.......Communication, I have for the commanding officer</td>
<td>215.......Proceed on the service assigned to you</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21.......Damage is repaired</td>
<td>312.......Sinking, this ship is</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23.......Disabled are the paddle wheels</td>
<td>314.......Smoke, I see ahead; prepare for action</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24.......Disabled, not able to go into action</td>
<td>315.......Strange vessel is a friend</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25.......Enemy, have you seen</td>
<td>412.......Take me in tow, I am disabled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31.......Enemy, I have seen</td>
<td>413.......Want, I am in, of a medical officer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32.......Engines are disabled</td>
<td>417.......Want, I am in for an engineer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34.......Fire, this ship is on</td>
<td>512.......Yes, lower your name</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35.......Follow the motion of the commanding officer</td>
<td>1-9.......These were night signals meaning the same as 1-5, 13, 24, 45, &amp; 312</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41.......Follow, do not the motion of the commanding officer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42.......Follow your instructions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43.......Go ahead</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45.......Get everything ready to attack tonight</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51.......Hail, come within</td>
<td></td>
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</tr>
</tbody>
</table>
A CONFEDERATE SIGNAL TOWER
First, there was a constant threat of a marauding party from a Federal ship creating havoc or even capturing one of the Confederate signal stations. Second, and even more disadvantageous, was that such an aggression could be instigated only by the Federal vessels. Third, the Confederate Signal Corps could be, and often was, lulled into a false sense of security by the boredom of constant observation. Thus, the signal posts were susceptible to an enemy surprise attack.

In one incident that took place near St. Helena Sound, South Carolina, the Federal vessel, Kingfisher, disembarked a landing party for the purpose of having a skirmish with one of the pickets of observation. Twenty-four men who landed about a half mile below the headquarters for observation were able to make their way to the point of attack with the aid of an old Negro servant. Finding the guard at the door asleep, they crept within the dark chambers securing the muskets of their foes as they went. When the guard woke up, he came running inside exclaiming that they were surrounded and his musket was gone. Thus, the sirens of monotonous duty had lulled the Confederates into military disaster--capture.²

It was in historic Charleston, South Carolina, that the mortar shell fired from Fort Johnson reached its apex and exploded over the flagpole at Fort Sumter. This signaled the beginning of the Civil War. It is, therefore, understandable that South Carolina and especially Charleston would be symbols of the repressible conflict for the Federals. In addition, the Federals wanted Charleston for its military value as well as to satisfy their psychological drive for revenge.

Being relieved of his command on the Western Front during June, 1862, General Beauregard took command of the defenses at Charleston. Since Beauregard was an able general, his appointment is indicative of the Confederacy's anxiety over the possibility of the capture of "The Cradle of the Rebellion." The Confederates made rapid preparations for a Federal siege.

The North's strategy was to attempt to humble Charleston the way it had humbled New Orleans—with naval power. Commander Samuel F. Du Pont, flag officer of the South Atlantic Fleet, was assigned the duty to carry out this task. He was given a strong fleet in order to impose the North's military power on Charleston. This fleet was made up of the Weehawken, Passaic, Montauk, Patapsco, New Ironsides, Catskill, Nantucket, and Keokuk. Du Pont, however, not only had the pressure of almost absolute
reliance on his naval force for victory but he was exposed to much pressure from Secretary of the Navy Gideon Welles as well.

On April 6, 1863, Du Pont attacked Charleston's formidable military installations. Du Pont's flotilla steamed past Fort Sumter and attacked it from the northwest. The Federal fleet found the Confederate fortifications more than an equal for them. All of the Federal vessels took a tremendous pounding from the Confederate batteries. For example, the Keokuk, had its armor weakened to the point that Du Pont was not able to resume the attack the next day.³

Secretary of the Navy Gideon Welles was dissatisfied with the results of Du Pont's flotilla in Charleston Harbor and lost confidence in Du Pont; therefore, Rear Admiral John A. Dahlgren assumed command on July 4, 1863, when Rear Admiral Andrew H. Foote, the first choice for Du Pont's command, died. Dahlgren had President Abraham Lincoln's confidence as well as Welles'.

Dahlgren resumed the struggle for Charleston on July 19. General Q. A. Gillmore, the Federal commander of the Northern troops in the Department of the South, assaulted Battery Wagner located on Morris Island. The

attack failed, but Battery Wagner fell later that summer. It was during this period that the famous "Swamp Angel," a large cannon erected on Morris Island, pounded Charleston.⁴ One of the targets of this large cannon was Saint Michael's Church, over 200 years old, which was a main signal station for the Confederate Signal Corps during the siege of Charleston. From the steeple of that church Confederate signalmen scrutinized the Charleston area.⁵ (Refer to the maps at the end of this chapter in order to view Charleston Harbor, Norfolk, New Orleans, Wilmington, North Carolina; and Plymouth, North Carolina.)

On September 7 Dahlgren demanded the surrender of Fort Sumter. The demolished fort made a negative reply to Dahlgren's presumptuous demand. Dahlgren was quite confident, however, that the fort would be taken easily. The attack was scheduled for the next day; however, when the Federal message ordering attack was circulated, a Confederate signalman intercepted it. The intercepted message was forwarded to the Confederate commander at Fort Sumter.⁶

At about two o'clock in the afternoon on July 8 the

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⁴Ibid., p. 171.


Confederate Signal Corps made another important interception. This interception took place while Lieutenant Clarence L. Stanton was stationed on the deck of the *Chicora*, a Confederate man-of-war, which was patrolling Charleston Harbor. Daniels, a Confederate signalman, stood next to him observing the signaling being made between Dahlgren's flagship and the rest of the Federal fleet. The signalman was able to determine that the attack on Fort Sumter would be made that night. As soon as the darkness of night had placed Charleston Harbor in a veil of obscurity, a Federal landing party of 450 to 500 men was annihilated by the defending Confederates at Fort Sumter.\(^7\)

The Confederate Signal Corps, performing its normal functions, played a major role in this victory; furthermore, a definite premeditated act had led to the interception of the Federal signals. A trap had been laid for a Northern signal officer in the Florida District. When this was accomplished, the captive was brought to Charleston and jailed. There Pliny Bryan, who was the assistant adjutant general on Beauregard's staff, was placed in the same cell with the Federal prisoner. Bryan had made studies of the signal flags and the code and cipher book of the sunken

\(^7\)Ibid., p. 700.
Keokuk. Under the veil of comradeship, Bryan gained all of the needed information to complete an understanding of Federal codes and ciphers.  

From September 8, 1863, until more than a year later, a stalemate between the Confederates and the Federals resulted. During this time there was a lot of activity in Charleston Harbor. Most of this activity centered around trying to break the Federal blockade. "Davids," which were small cigar shaped vessels with small displacements, were used. In addition, ironclads and the first submarine to sink an enemy vessel, the R. L. Hunley (sometimes called the R. L. Huntley), tried to break the Federal blockade; however, all attempts failed.

Constant difficulties in reading Federal dispatches lessened the advantage of knowing the Federal key due to the fact that several cipher systems might be employed. A signalman who could read Federal messages was very valuable. For example, T. Finckney Lowndes, who was stationed at Fort Sumter, read a Federal message. This distinction caused Lowndes to be placed on duty for three consecutive

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8Ibid.

days.\textsuperscript{10}

Marching through the South, Sherman began to put pressure on Charleston. He believed that it would not be necessary to invade the city. His plan was to march above Charleston; therefore, the Confederates would be forced to evacuate the city because of the impending pressure. Lieutenant George H. Harrison, chief signal officer at Charleston, Sergeant Metard, and the rest of the Confederate Signal Corps at Charleston began the transmission of the Confederate order for the evacuation of the city on February 16, 1865.\textsuperscript{11} The city was evacuated on February 18, 1865, by the Confederates.

Norfolk, Virginia, was an important port for the South. It was there, in the Norfolk Navy Yard, that the Confederates captured the hull of the Merrimack (sometimes referred to incorrectly as the Merrimac, which was a captured Confederate blockade runner in the service of the Federal Navy).\textsuperscript{12} This port was also important because of its observation value. For example, Milligan reported on


\textsuperscript{12}Anderson, \textit{op. cit.}, pp. 8-9.
April 11, 1862:

"The Monitor, if at Old Point at all, did not make her appearance. At five p. m. the fleet returned to anchorage above Craney Island. The enemy's fleet, over 100 sails, are all below the Rip Raps."

Norfolk's value to the South was lost when the Federals under McClellan's command embarked upon the Peninsular Campaign.

New Orleans was a very valuable port for both the North and South. It was a key to the control of the Mississippi River and to transoceanic trade.

Early in 1862 Rear Admiral David G. Farragut began to move his flotilla against the two forts, Fort Jackson and Fort St. Phillip, which guarded the Gulf of Mexico approach to New Orleans. Farragut got his fleet above these forts early in the morning of April 24. Julia LeGrand, a famous Civil War diarist in New Orleans, claims that the reason the ships passed the fortifications on the lower Mississippi was that a traitor failed to give the signal. New Orleans was forced to surrender; furthermore, General Benjamin F. Butler commanded the occupation forces which took possession of the city on May 1, 1862.

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Wilmington, North Carolina, was valuable to the Confederacy as a port for its blockade runners. Here the Independent Signal Corps and the Confederate Signal Corps made definite contributions. In fact, Milligan in his annual report said:

"The men detailed upon the blockade runners from Wilmington from the Independent Signal Corps are highly spoken of for efficiency and ability by Lieutenant Wilmer, [who is] in charge of Marine signals."\(^{15}\)

A letter from Bragg, who was in command of Wilmington late in the war, to Lieutenant Colonel W. H. Taylor on January 2, 1865, clarifies the positions of the Confederate Signal Corps and of the Independent Signal Corps. The letter indicates that Lieutenant C. Bain was assigned as chief signal officer in that military district; however, Lieutenant S. Wilmer was assigned the independent position of chief of operators on blockade runners. Wilmer had to report only to Major Norris and to the Confederate War Department. Bragg, deploring the situation, pointed out that several vessels barely missed capture because of the irrational arrangement. Bragg pointed out that continuing to allow vessels to run in and out of Wilmington under

independent command would damage morale and put the Confederate position in the city in jeopardy. The problem was never resolved because Wilmington was captured by the Federals shortly after Bragg's indignant letter to Taylor. Thus, Bragg's letter, which indicated his disunified command, demonstrates one of the common faults of many military organizations—bureaucracy.16

Blockade running and the defense against it demanded much from the Confederates and Federals respectively. The Confederate blockade runners would communicate with the shore by means of flags and torches. They would have to be apprehensive of Federal maneuvers and misapprehensions as well as of the possibility of inclement weather in order to get past the Federal blockade. On the other hand, the Federals would place launches along sand bars where the blockade runners would often appear. When lights from the blockade runners were observed from the Federal launches (lights were necessary in order to judge the depth as a blockade runner would cross a sand bar), Union pickets would signal the Federal ships. The Federal ships, in turn, would bombard the sand bar in order to prevent the Confederate blockade runners from reaching

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the open sea. 17

The sinking of the Albemarle was partly due to the failure of Confederate signalmen to observe a Federal raiding party. The Albemarle was a formidable ram in the Confederate Navy. The ram had been successful in destroying several ships. It was at anchor at Plymouth, North Carolina, eight miles up the Roanoke River, during the autumn of 1864 (check the map on page 94). Lieutenant William B. Cushing, a daring young officer in the Federal Navy, contrived a plan to sink the Confederate vessel. In accordance with his plan of attack, Cushing selected two boats being fitted for picket duty for his mission. On the bow of each vessel was a twelve-pound howitzer; in addition, a boom fourteen feet in length was placed upon the bow. At the end of this boom, which was adjustable from within the vessel, a torpedo was placed. 18

On the night of October 17, 1864, the initial stages of the plan were executed. As soon as the Federals entered the Roanoke River, they took into tow a small Federal cutter. The men aboard the cutter were to dash aboard the Southfield, a half submerged wreck being used


for a Confederate observation post, and silence the guard before a signal rocket could be ignited. Cushing, on the other hand, thought that it might be better to leave the Southfield unmolested if at all possible in order not to jeopardize their secrecy; however, all hopes for being undetected vanished, to his dismay, when they were hailed by a passing Confederate patrol vessel. Immediately, Cushing detached the Federal cutter to go back and carry out the original plan to capture the Southfield.  

The situation became very dangerous as the Albemarle and Confederate shore batteries began to open fire on the audacious Federals. Cushing discovered, in addition, that a ring of logs protected the Confederate ironclad. The undaunted Federals moved with perseverance toward the Albemarle. Coming within range of the Confederate ironclad, one of the Federal vessels lowered its boom, and the torpedo contacted the side of the Confederate man-of-war. Then the reverberation of a loud explosion rocked the small Federal vessels—the Albemarle had been sunk. Thus, the Confederate Signal Corps and the Confederate Navy had been victimized by one of the most daring actions of the war. 

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19 Ibid., p. 636.

20 Ibid., pp. 636-637.
CHAPTER VI

SECRET SERVICE AND SECURITY ACTIVITIES
OF THE CONFEDERATE AND INDEPENDENT SIGNAL CORPS

The Confederate and Independent Signal Corps were responsible for security and secret service activities in addition to their normal signal duties. In fact, the multiple duties of the two signal corps in the service of the Confederacy would be handled today by the Central Intelligence Agency, Federal Bureau of Investigation, Coast Guard and the United States Signal Corps.

Lee and Davis required the special attention of the Confederate Signal Corps. These two men needed special codes, ciphers, and trusted men who would see that messages and their contents would stay on the direct line of private communications between the commander of the Army of Northern Virginia and the President of the Confederacy. At the headquarters of Lee, Joe Calieness was assigned the special signal duty. Davis' headquarters appointed a trusted man for a similar duty.¹

On April 20, 1863, a case of security arose in Lee's Army of Northern Virginia. On this date Lee received

the report that an intercepted Federal message had been read by someone other than the one for whom it was intended. This was contrary to Lee's orders, which had stated that signal messages could only be read by the person to whom the message was addressed, and intercepted messages could be read only by the commanding officer of the signalman who intercepted the message.2

Lee demanded that "Stonewall" Jackson undertake an investigation in order to ascertain who had been responsible for the poor security. Jackson, in turn, ordered Captain R. E. Wilbourne, his signal officer, to personally direct the investigation. Wilbourne discovered that Captain R. H. T. Adams, General Ambrose Powell Hill's signal officer, had been at fault. Adams defended himself by saying that he was operating under conflicting orders. He said that he had orders from General Hill that demanded that the commanding general must read all signal messages regardless to whom they might be addressed. Adams pointed out that he obeyed Hill's orders since he was directly responsible to him. Jackson directed Adams to be removed from his responsibilities and to report to Lee. Hill, on the other hand, defended Adams' actions.3

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2Douglas Southall Freeman, Lee's Lieutenants, (New York: Charles Scribner's Sons, 1944), II, 512.
3Ibid., p. 513.
Jackson was angered by the brash actions of A. P. Hill. Investigating more evidence, Jackson discovered that A. P. Hill had stated in writing to Brigadier General William Nelson Pendleton his intention of defying Lee's candid orders. Jackson then wrote Lee a tendentious letter asking for the removal of A. P. Hill as a corps commander; however, Jackson's demands were not fulfilled.\(^4\)

It was found that telegraphy presented a definite problem. Telegraphy was a separate agency altogether. This meant that neither the Confederate Signal Corps nor the Independent Signal Corps had control over this phase of communications. The arrangement had several vulnerable aspects. First, it was detrimental to overall morale. Second, it caused an unnecessary security risk. Milligan especially denounced this system throughout the war.\(^5\)

The Confederate Signal Corps as well as the Independent Signal Corps resorted frequently to wire tapping in their operations to gather information about the Federals. On the other hand, the Confederate gains did not always justify their circumspect efforts because of the

\(^{4}\)Ibid., p. 514.

fact that the Federals generally enciphered important messages.

There are many examples of Confederate wire tapping. In one instance a Confederate signalman went behind Federal lines when General Burnside was in charge of the Army of the Potomac. His task was to tap the wire between the War Department and Burnside's headquarters. This mission was undetected by the Federals for several days; however, when the Federal telegraphic operators ascertained that their signal line was being tapped, they advised the Confederate to remove himself before Federal troops captured him. Heeding the fraternal advice, the Confederate signalman returned to his lines. In another instance C. A. Gaston was able to get behind the Federal lines during the siege of Richmond and Petersburg in 1864. He remained behind the Federal lines without being detected. One of the messages that he intercepted concerned a herd of beef for Federal supplies. This information was forwarded to General Wade Hampton, who captured the herd.6

There was a defense against wire tapping and other methods used for intercepting messages. This defense was simply to allow the enemy to intercept false messages that

would confuse and mislead him. This method was used often by the Confederate Signal Corps and the Independent Signal Corps.  

Captain C. H. Causey was one of the Confederate Signal Corps’s best secret agents. He made many secret missions that carried him well into Federal territory, but much of his activity centered around the peninsular area.  

Causey knew almost all of the secret service techniques of his time. For example, Northern newspapers were a major target for Confederate secret agents. Those newspapers had the habit of indiscreetly publishing information that was of military significance; therefore, Causey was always alert to obtain them.  

In addition to Causey, there were several other outstanding secret service agents worthy of recognition. Sergeant J. C. Nosworthy was one of them. He performed the same types of tasks that Causey did. For example, he

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observed the strength of General Butler's forces and reported their strength to Major Milligan.\textsuperscript{9} Lieutenant C. H. Cawood was another secret agent in the service of the Confederate Signal Corps in the Virginia area.\textsuperscript{10}

The Confederacy had several famous spies such as Rose O'Neal Greenhow. Greenhow, like other Confederate spies, scrutinized Federal military movements very closely. When she drowned after disembarking from a Confederate blockade runner, she was reputed to be the only woman to lose her life while on active duty for the South.\textsuperscript{11}

There are strong indications that Greenhow and other women in Confederate secret service work were contacted by the Confederate Signal Corps as well as the Independent Signal Corps. For example, Sergeant J. C. Nosworthy reported to Milligan that "our lady friend' on the north shore reports plans to land on the south side of the


\textsuperscript{11}Harnett T. Kane, Spies for the Blue and Gray (Garden City, New York: Hanover House, 1954), pp. 65-66.
James River."¹² Milligan in his report to Major General George E. Pickett said, "Our lady friend reports that it is the belief among their officers that they will make a simultaneous attack with Grant or some place in North Carolina or in Lee's rear."¹³ "Our lady friend," however, cannot refer to Greenhow, who was in England at the time these reports were made. On the other hand, the reference does indicate that the Confederate Signal Corps and the Independent Signal Corps were involved in such activities that might have meant contact with Greenhow during her career as a spy.

Captain G. DeJarnette, who was in command of one of Milligan's companies in the Independent Signal Corps, ventured on a secret service mission. This serves to indicate that secret service duties were not always assigned to just certain people. DeJarnette had been ordered by his superior, Milligan, to conduct a reconnaissance mission behind Federal lines during June, 1862.


DeJarnette immediately chose six couriers in order to relay important information.

Embarking on the mission, DeJarnette made his way laboriously behind the Federal lines in order to observe assigned objectives at City Point and Bermuda Hundred. After collecting important information, he fatigued with the lack of sleep and the tension of a perilous mission. Thus, DeJarnette decided to sleep before returning to the Confederate lines; however, he picked a rather obvious place for a tired Confederate to sleep—Edmund Ruffin's house. When he awoke, he helplessly recognized that he was surrounded by blue uniforms—the Federals had captured him. 14

Captain Ray took DeJarnette to Colonel Rand, who was Ray's commanding officer, and from there DeJarnette was taken to General Butler. Butler, who was one of the Northern generals most hated by the South, wanted DeJarnette to be a traitor to his own cause by disclosing the Confederate strength around Petersburg, Virginia. DeJarnette refused Butler's demand. Butler was very angry at DeJarnette, but when he learned that several months earlier DeJarnette had made a bold mission to Norfolk,

14 G. DeJarnette, "Held as a Spy," The Confederate Veteran Magazine, XL (June, 1932), 207.
Virginia, his anger turned into fury. Butler then decided to have DeJarnette tried as a spy. DeJarnette was not convicted, and he was exchanged later that year.\footnote{\textit{Ibid.}, 208.}

Scouting was another of the multiple duties of the Confederate Signal Corps and the Independent Signal Corps. When the Confederates took the offensive in the Civil War, the signalmen usually became mounted scouts. In fact, in officially establishing the Confederate Signal Corps it was mentioned that they had certain equalities with cavalry.\footnote{\textit{O. R., Ser. IV, Vol. I} (Washington: Government Printing Office, 1894), p. 1,132, General Order Number Forty, 29 May 1862.} Milligan in one of his last annual reports said:


Milligan's statement seems to indicate that the two Confederate signal services were involved in scouting duties during defensive as well as offensive situations; however, the degree of scouting done during defensive
Scouts were also involved in minor skirmishes. In one case, Federals were crossing Lyon's Creek to harass the Confederates and to plunder the land. What made the Southerners especially angry was the fact that Negroes composed a large portion of the Northern marauding forces. A clash between the signal scouts and the marauders came on the night of December 4, 1864. Milligan gives the following outcome: "Signal scouts killed, captured or wounded eighteen Negroes and two whites in Lyon's creek." Milligan's reference to the scouts as "signal scouts" seems to present more proof of the relationship among the Confederate Signal Corps, the Independent Signal Corps, and scouting.

The scouts made more than just local missions. Some went very near Washington. In fact, it was the habit to send a scout to determine the strength of a Federal army before and after a major battle. There are a few examples to uphold this statement. First, on the eve of the Battle of Chancellorsville Lee reported to President Davis, "Norris estimates Hooker's army at 150,000 to

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18 Ibid.
19 Ibid., p. 670.
Second, after the Battle of Gettysburg Norris stated that his scout from Washington reported that General Meade had a total of 30,000 men detached in order to capture Charleston, South Carolina. Some of these reports were not completely correct; nevertheless, the scouts performed well when one considers their handicaps.

Milligan and Norris faced another problem—Butler wanted to execute their signal scouts. The problem was resolved when Butler discovered the Confederacy ready to reply with reciprocal action.

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22 Ibid., pp. 849-50, Major James F. Milligan, commander of the Independent Signal Corps, Petersburg, Virginia, 26 November 1863, to James A. Seddon, Secretary of War, Richmond, Virginia.
CHAPTER VII

CONCLUSIONS CONCERNING THE CONFEDERATE AND INDEPENDENT SIGNAL CORPS

The Confederate Signal Corps shares the same pre-Civil War background as the United States Signal Corps. In addition, the Confederate Signal Corps was first in the field. In fact, the First Battle of Manassas might have been won by the North if the Confederate Signal Corps had not detected McDowell's flanking movement early on the second day of battle. Of course, final Southern victory was achieved with the arrival of fresh Confederate troops on the same day.

The value of the Confederate Signal Corps was realized by President Jefferson Davis and the Confederate Congress. Thus, it was organized to the point that it was able to render outstanding service in the Civil War for the Confederacy. As the war progressed, it was discovered that the Confederate Signal Corps under the command of Major William Norris needed a sister organization in order to function more efficiently in the area of Virginia. For that reason, the Independent Signal Corps was formed under the command of Major James F. Milligan.

The Confederate Signal Corps and the Independent Signal Corps had several problems. First, there was a
shortage of resources. For example, the Confederacy could not match the United States Signal Corps's observation balloons. Second, the two signal organizations in the service of the Confederacy suffered from a shortage of weapons. This was certainly an acute problem, since the signalmen would either have to abandon their post or be captured. Third, telegraphy, an independent agency during the Civil War, presented a considerable problem. Telegraphy should have been under the command of either the Confederate Signal Corps or the Independent Signal Corps. This flaw in the organization of the two Confederate signal corps was the cause of several serious problems.

The Confederate Signal Corps and the Independent Signal Corps played a multitude of roles in the Civil War. Both signal organizations had to conduct scouting missions, engage in regular signal duties, defend security, assume Naval duties, coastal defense and secret service missions. In all of these endeavors, the two Confederate signal corps proved their military values. In addition, the signal organizations for the North and South were pioneers of today's modern signal organizations.

The value of the Confederate Signal Corps has been ably summarized in one paragraph (this tribute could apply equally to the Independent Signal Corps). The writer of the paragraph, A. W. Greely, stated:
It was at Island Number 10; it was active with
Early in the Valley; it was with Kirby Smith in the
Trans-Mississippi, and aided Sidney Johnston at Shiloh.
It kept pace with wondrous "Stonewall" Jackson in the
Valley, withdrew defiantly with Johnston toward Atlanta,
and followed the impetuous Hood in the Nashville
campaign. It served ably in the trenches of beleagured
Vicksburg and clung fast to the dismantled battle-
ments of Fort Sumter.¹

¹A. W. Greely, "The Signal Corps," The Photographic
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This is one of the basic sources for the early history of the Confederate Signal Corps; furthermore, this source is valuable for its eyewitness accounts of Civil War activities.


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This article concerns the destruction of the Albemarle, a Confederate man-of-war, and the Confederate Signal Corps near Plymouth, North Carolina.


This article gives a graphic account of the secret service work under the direction of Major James F. Milligan.


General Joseph E. Johnston recounts his military campaigns. This book gives special attention to the war in the West.


This source contains information about the signal activities at the siege of Vicksburg.


This article concerns the Confederate Signal Corps's organization in General A. P. Hill's Third Corps which served in Virginia.


This is a brochure about the procedures to be followed in signal stations under Milligan's command.


This article covers the Confederate Signal Corps in the service of General Braxton Bragg. In addition, it includes a description about signal methods.


This article relates the Battle of Fredericksburg.


This is one of the best sources for the history of New Orleans during the Civil War.


These reports pertain to the signal operations of the Confederate Signal Corps in the service of the Army of Northern Virginia.


These sources contain very valuable field reports about the operations of the Union and Confederate armies.

These sources contain very valuable field reports about the operations of the Union and Confederate Navies.


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These volumes are among the best eyewitness accounts of the Civil War and other great American conflicts that can be found.

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Catton gives a very good general history of the Civil War in this book. Catton's writing style enables the reader to understand complex details with more ease.

This is one of the best coverages of the many aspects of the Civil War that has been compiled.


This text is among the most scholarly ever written on the history of the United States.


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These are two scholarly volumes on the first two years of the Civil War. Nevins gives a very complete non-military history of this period.


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This is a very informative work on the War in the West.


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This relates probably one of the best histories ever written about the Confederate Navy.


Taylor wrote one of the better works on the methods used to run the Federal blockade.


This is a good general history about the Confederate Navy.


Webb relates the history of the Great Plains in a very delightful manner. The book's main value in relation to the development of signal communication is the coverage of Myer's activities in New Mexico.


These volumes give a very good view of the North's military situation during the Civil War.

This secondary work gives the history of St. Michael's Church in Charleston, South Carolina. It is the best book written on the history of St. Michael's Church. Williams relates the activities of the Confederate Signal Corps in the steeple of the church.
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