



## Guide to Civil War Intelligence

Dr. Edward J. Glantz, P.E.

When the American Civil War began in 1861 there was no precedent for having an organization dedicated to intelligence. As a result, intelligence activities of the Union and Confederacy were decentralized. Information was gathered and used at local levels by opportunists seeking to support their cause, or battlefield commanders seeking an advantage. The term “intelligence” was not used; instead, “secret service” described intelligence activities as well as detective work. The risks of spying then were great. A suspect caught in disguise (i.e. not a regular army uniform) gathering or distributing information could be hanged. This was the fate of Confederate Will Talbot left behind by his unit to spy in Gettysburg. Captured in June 1863, Talbot was ordered hanged by Brig. Gen. John Buford.

American officers learned about intelligence from studying military history. “It is pardonable to be defeated, but not to be taken by surprise,” wrote Frederick the Great. And French Marshal Saxe is credited with stating “Too much attention cannot be given to spies and guides... they are as necessary to a general as the eyes are to the head.”<sup>1</sup>

Careful attention to the collection of information, its timely analysis, and use was not always followed during the Civil War. On December 13, 1862, army commander Ambrose Burnside chose not to change his battle plan at Fredericksburg, even though a captured Rebel had offered “full information of the position and defenses of the enemy.” The result was a federal disaster.

Both sides tried to obtain information by intercepting enemy documents and mail, decoding messages, and interrogating prisoners. Commanders on both sides served as their own intelligence officers, including Confederate generals Thomas “Stonewall”

Jackson, who directly supervised the mapping of the Shenandoah Valley, and James A. Longstreet, who personally debriefed a spy reporting on Union Army movements toward Gettysburg.

Below is a sampling of Civil War spies and scouts for both sides, although the majority of the intelligence was probably provided by the observations of anonymous agents and “false deserters,” who also spread false information.

---

### UNION SPIES AND SCOUTS

---

It is believed the Union was better at spying on the enemy and detecting its own information leaks.<sup>2</sup>

**CHARLES POMEROY STONE** was appointed inspector-general of the District of Columbia militia at the beginning of the war by Lieutenant General Winfield Scott, then commander-in-chief of the U.S. Army. With most of the U.S. Army deployed in Indian country, Stone’s detectives worked undercover with groups volunteering to disclose secessionists and their plots. His work resulted in disbanding the National Volunteers for Southern Sympathies and purging the National Rifles of secessionists who were planning to storm the Treasury building. Stone also performed classic intelligence analysis comparing detective and independent reports to confirm a plan to assassinate President Lincoln.

**ALLEN PINKERTON** formed the nation’s first detective agency in Chicago ten years before the Civil War. He developed modern investigative techniques, such as “shadowing” a suspect (i.e. surveillance) and working undercover. In 1861, he guarded Abraham Lincoln on the way to his inauguration, possibly foiling an assassination attempt. Early in the war Pinkerton worked for General George McClellan, occasionally undercover using the alias Major E.J. Allen. Working counterintelligence, Pinkerton’s operatives arrested Rosa Greenhow, whose spy network had funneled information to the Confederates from the nation’s capital. Pinkerton resigned in 1862 after overestimating Confederate forces in Richmond. That judgment encouraged McClellan to delay his attack, and he was fired by Lincoln.

**LAFAYETTE BAKER** began his service working for General Winfield Scott. Baker claimed that he, under the alias “Sam Munson,” had gathered information

1. *The Secret War for the Union: The Untold Story of Military Intelligence in the Civil War* by Edwin C. Fishel.

2. *Spies Like Us: History of American Intelligence*. Center for the Study of Intelligence, (Central Intelligence Agency, 2007).

on Southern military installations by pretending to photograph high-ranking Confederate officers. Later, Baker was responsible for tracking the conspirators responsible for the assassination of President Lincoln.

**GEORGE SHARPE**, a lawyer, headed the Bureau of Military Information formed in 1863 for Major General Joseph Hooker, the first organized federal unit dedicated to the gathering and analysis of intelligence. It gathered information from agents, prisoners of war, refugees, Southern newspapers, and documents retrieved from battlefield corpses. Sharpe's spies counted tents to estimate troop numbers, approximate cannon numbers by the length of the artillery train, and counted guards at forts and ammunition dumps. In May 1863, with information from Sharpe's agents and informants, Hooker exploited a gap in the rear of Lee's Fredericksburg lines that threatened the Army of Northern Virginia. Sharpe used Elizabeth Van Lew in the Richmond underground to recruit Samuel Ruth to spy. As superintendent of the Richmond, Fredericksburg, and Potomac railroad, Ruth provided information about Confederate Army movements and also slowed bridge repair and supply shipments to Richmond. As a result, a clerk in the Confederate War Department wrote, "The enemy are kept fully informed of everything transpiring here."<sup>3</sup>

**ELIZABETH VAN LEW** used her status and connections to operate an extensive spy ring in Richmond. She brought food, clothing and writing paper to Union soldiers held in Libby Prison. She passed prisoner information on troop levels and movements back to Union commanders. She also operated a spy ring that included War and Navy Department clerks. After the war, President Lincoln met her for tea and said, "You have sent me the most valuable information received from Richmond during the war."<sup>4</sup>

**GRENVILLE M. DODGE** was told by General Ulysses S. Grant, "You have a much more important command than that of a division in the field."<sup>5</sup> Dodge used intelligence to gather information from runaway slaves, spies - including women - working in the South, and a trained "Corps of Scouts." Dodge taught scouts to estimate enemy numbers by measuring the length of road taken up by a column of soldiers. He also used a pro-Union cavalry unit made up of Southerners. To

prevent interception, his coded messages were sent by rider, not telegraph. Dodge was so discreet that little is known about his operations or the names of most of his agents. At the beginning of the war, Dodge was appointed colonel of the 4th Iowa Volunteer Infantry Regiment and was wounded commanding the 1st Brigade, 4th Division, at the Battle of Pea Ridge, after which he was appointed brigadier general of volunteers and placed in command of the District of the Mississippi.

---

## CONFEDERATE SPIES AND SCOUTS

---

The Confederacy's intelligence was even less organized than the Union's, although the South was more effective at conducting covert (i.e. "secret") operations, such as sabotage. Southern agents fueled antiwar feelings and encouraged succession from the Union in Indiana, Illinois, and Ohio. Confederates also set fires in New York City to disrupt Northern-manufacturing hubs. The Confederacy's signal corps included a covert agency, the Secret Service Bureau. Scouts, cavalry and guerrilla units, such as Colonel John Mosby's Partisan Rangers, discovered federal secrets through direct observation, capturing Union officers' personal papers in baggage trains, and way-laying federal messengers.

Famous agents for the South include J.E.B. Stuart, Rose Greenhow, Isabella Marie Boyd, Nancy Hart Douglas, George "Lightning" Ellsworth, and John Wilkes Booth.

**MAJ. GEN. J. E. B. STUART's** cavalry's reconnoitering provided effective intelligence for the South that the North did not have at the war's beginning. At Gettysburg, when Stuart chose to raid towns and not scout, he deprived Lee of critical information.

**ROSE GREENHOW** traveled in Washington political circles and used friendships with presidents, generals, senators, and high-ranking military officers to gather information for the Confederacy at the start of the war. During the Bull Run campaign in July 1861, Maj. Gen. Pierre Beauregard used information from Greenhow to provide early warning of Union movements. In 1861, Pinkerton, finding maps of Washington fortifications and notes on military movements, arrested Greenhow. She continued sending messages to the South from prison until deported to Richmond in 1863. She received a full military burial in Oakdale Cemetery, Wilmington, North Carolina, where her epitaph reads: "Mrs. Rose O'N. Greenhow, a bearer of

3. Thomas Allen. *The Bureau of Military Information: Intelligence in the Civil War*. Central Intelligence Agency, 2010.

4. Elizabeth R. Varon. *Southern lady, Yankee spy; the true story of Elizabeth Van Lew, a Union agent in the heart of the Confederacy*. Oxford University Press, 2003.

5. Thomas Allen. *ibid.*

dispatches to the Confederate Government.”

**ISABELLA MARIE BOYD** spied from her father’s hotel in Front Royal, Virginia, providing valuable information to General Stonewall Jackson. She was caught and threatened with death – a punishment unusual for women captives. She survived and continued spying. In a closet she eavesdropped and learned of the reduced Union strength at Front Royal. When the Confederates arrived, she braved enemy fire to tell the rebels to tell Jackson “the Yankee force is very small. Tell him to charge right down and he will catch them all.” Jackson was successful and penned a note of gratitude: “I thank you, for myself and for the army, for the immense service that you have rendered your country today.” For her contributions she was awarded the Southern Cross of Honor and given captain and honorary aide-de-camp positions by Jackson.<sup>6</sup>

**NANCY HART DOUGLAS** became expert with firearms and horses on her family farm. During the war she joined the Confederate Moccasin Rangers in present-day West Virginia where she served as guide and spy. Hart became so famous that Union forces in West Virginia offered a reward for her capture in 1862. Although captured shortly thereafter, she managed to escape.

**GEORGE “LIGHTNING” ELLSWORTH** was a Canadian telegrapher who served in the Confederate cavalry forces under Brig. Gen. John Hunt Morgan. Morgan recruited Ellsworth to telegraph “disinformation,” (false or misleading information) to the Union. He earned his nickname “Lightning” in Morgan’s first Kentucky Raid in July 1862 after sending a telegram in knee-high water during a thunderstorm. Ellsworth developed the ability to imitate the distinctive style, or “fist,” of other telegraphers, including several Union telegraphers based in Kentucky and Tennessee. England’s *The Times* declared the use of the telegraph to spread disinformation as the greatest innovation to come out of the war.<sup>7</sup>

**JOHN WILKES BOOTH** used his skills as an actor to escape detection while spying for the South. He gained notoriety in April 1865 as President Lincoln’s assassin.

6. Thomas Robson Hay. “Boyd, Belle” *Notable American Women*. Vol. 1, Belknap Press of Harvard University Press, 1975

7. Wikipedia contributors. “George Ellsworth.” Wikipedia, The Free Encyclopedia. Wikipedia, The Free Encyclopedia, September 23, 2010. Web. February 11, 2011.

---

## INTELLIGENCE TECHNOLOGY OF THE CIVIL WAR

---

The American Civil War highlighted the industrial revolution’s innovations of iron-making, telegraphy, and steam engines. Intelligence benefitted from new technology, including tethered balloons and signal messaging.

### Intelligence Signaling

In the Civil War, significant developments were made in military telecommunications, which created unique intelligence gathering opportunities. In 1863, the Army Signal Corps contributed to intelligence gathering from its troops posted on the high ground. Both sides could intercept the opponent’s “wig-wag” messages and telegraph signals.<sup>8</sup> Intercept operations, cryptanalysis, and cryptography came into their own in the Civil War.

### Civil War Encryption

Cryptography - the writing of codes and ciphers – is an ancient art, and the cryptographic techniques used in the Civil War were not new. What was new was the telegraph, which enabled quickly sending messages far and wide. “Wiretapping” the telegraph lines, of course, followed. Hence both sides used codes and ciphers to hide the real “plaintext” message in encrypted “ciphertext.” Opponents used “cryptanalysis” to decrypt the intercepted ciphertext. Civil war cryptography techniques were mostly ciphers based on substitution and transposition. Substitution means exchanging the original letter with a known substitute.<sup>9</sup> Transposition means rearranging the letters in a certain pattern, creating an “anagram.”<sup>10</sup> At the time

---

8. Wig-wag messaging, or “wig-wagging,” was invented in the 1850s by U.S. Army Major Albert J. Myer, and used by Signal Corps troops on both sides during the Civil War. Different than semaphore, only one flag, lantern, or torch was used to communicate similar to Morse code dots and dashes.

9. A simple substitution example, called the “Caesar shift,” offsets the original letter a certain number of spaces in the alphabet. The sender and receiver would agree on the “key” used to encode and decode the message. For example, using a key that shifts three-places, the word “CAT” would be rewritten as “FDW” in the ciphertext. The receiver uses the key in reverse to translate ciphertext “FDW” back to plaintext “CAT.”

10. The “rail fence cipher” is an example. If a two-line key is used, every other letter is dropped to a second line. The message is re-written starting with the letters remaining on the first line, followed by those on the second line. The letters are not changed; they just appear out of order. For example, plaintext “GATE” would now appear as “GTAE” in ciphertext.



of the Civil War, the words “code” and “cipher” were used interchangeably.

In 1864, Confederate telegraph operator Charles Gaston tapped into communications between Grant’s headquarters and Washington on a wooded area east of Petersburg, Virginia. With scouts pretending to be woodcutters, he listened to high-level Union army telegraph communications. Colonel George H. Sharpe, head of the Union Army of the Potomac’s counter-intelligence service, was aware of the interception, but did not interfere since the communications traffic was not interrupted. For two months, the intercepted Union messages were sent to Richmond, possibly to skilled cryptologist Edward Porter Alexander.

It is not known whether the South decoded any of the intercepted Union messages. Gaston did intercept a valuable message sent unencrypted, describing 3,000 head of cattle being delivered to Grant’s headquarters at Coggin’s Point, near Richmond. At dawn of September 16, 1864, a Confederate raiding force under Major General Wade Hampton overran Union pickets and made off with the cattle.

Confederate President Jefferson Davis used a dictionary code to communicate with General Albert Sidney Johnston. Each word in the message was replaced by its location in a specific dictionary possessed by both men. For example, the word “division” would be written as “265-2-10,” referring to page 265, column 2, and word 10 of this dictionary. Johnston then communicated to his second-in-command, General Pierre G.T. Beauregard, using the Caesar cipher. Eventually both the Union and Confederates standardized communications by adopting a more advanced form of the Caesar cipher from 1587 called the Vigenère.

### Battlefield Balloons

In the summer of 1861, Professor Thaddeus S. C. Lowe used his hot-air balloon, the “Enterprise,” to support the Union Army’s map-making. At the first Battle of Bull Run, Lowe used flag signals to direct gunners on the ground to fire at unseen targets. In April 1862, Union Major General Fitz John Porter floated untethered to observe Confederate positions, before veering back to Union lines and crashing safely. Eventually Lowe built seven balloons for military use. A key innovation was development of gas generating equipment that allowed balloons to be inflated and maintained in the field. Besides mapping and forward artillery observation, the balloons monitored troop movements. However, by mid-1863, threats of bad weather and enemy artillery fire brought an end to use

of balloons. The balloon foreshadowed today’s overhead reconnaissance from spy planes and satellites.

---

## CIVILIAN INTELLIGENCE

---

Intelligence on Confederate forces provided by “Negroes” was referred to as “Black Dispatches” by Union military men. This information was both prolific and productive. For instance, a Virginia slave told at least one Union officer that Confederate forces would evacuate Yorktown before they did on May 3, 1862. In 1862, Frederick Douglass wrote:

*The true history of this war will show that the loyal army found no friends at the South so faithful, active, and daring in their efforts to sustain the government as the Negroes. Negroes have repeatedly threaded their way through the lines of the rebels exposing themselves to bullets to convey important information to the loyal army of the Potomac.<sup>11</sup>*


In addition, civilians used coded messages to protect important information for the Underground Railroad.

As it was illegal to teach slaves to read or write, dance, spirituals, code words (e.g., “Hope” for Cleveland, “Midnight” for Detroit), phrases, and memorized symbols were used by slaves to communicate secretly. Secret messages may have been hidden in quilt patterns to help slaves escape.<sup>12</sup> Each pattern had a different meaning, such as the “Monkey Wrench” (prepare to leave), “Star” (follow the North Star), “Crossroads” (major city ahead), and “Wagon Wheel” (pack essential provisions). The messages could be visible in quilts hung over a fence or windowsill to air. Following the code of secrecy, however, many of these covert communications were never documented.

---

## CONCLUSION

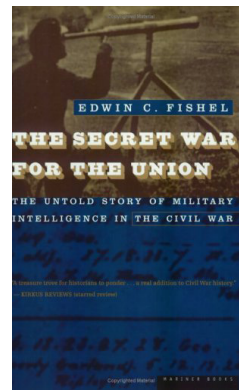
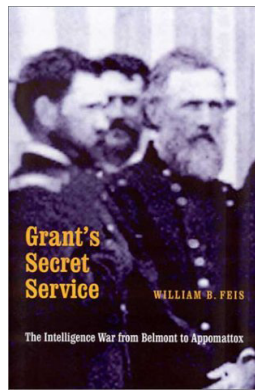
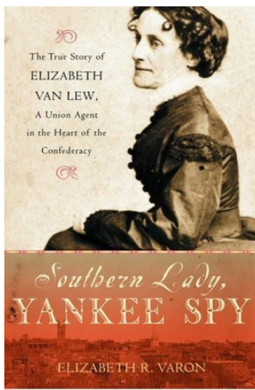
---

“The art of war is simple enough,” Grant wrote. “Find out where your enemy is. Get at him as soon as you can. Strike him as hard as you can and as often as you can, and keep moving on.”<sup>13</sup> The need to “find out where” called for good intelligence. 

11. P. K. Rose. “Black Dispatches Black American Contributions to Union Intelligence During the Civil War.” Center for the Study of Intelligence (Central Intelligence Agency, 1999).

12. Jacqueline L. Tobin and Raymond G. Dobard. *Hidden in Plain View: A Secret Story of Quilts and the Underground Railroad* (Anchor Books, 2000).

13. William B. Feis. *Grant’s Secret Service*. University of Nebraska Press, 2002.



## Readings For Instructors

The following are recommended readings for instructors on Civil War Intelligence

- Antonucci, Michael, "Code Crackers: Cryptanalysis in the Civil War," *Civil War Times Illustrated*, July-August, 1995. <http://www.eiaonline.com/history/codecrackers.htm>. This is a very nice introduction to the use of cryptology in general, and cryptanalysis in particular, during the Civil War.
- Center for the Study of Intelligence, "Intelligence in the Civil War," (Central Intelligence Agency, 1999). <https://www.cia.gov/library/publications/additional-publications/civil-war/index.html>. This PDF available from the publications library at the CIA provides a good overview of many aspects of Civil War intelligence.
- Either, Eric, "Intelligence: The Secret War Within America's Civil War," *Civil War Times*, June 26, 2007, <http://www.historynet.com/intelligence-the-secret-war-within-americas-civil-war.htm>. The Wider History Group, publisher of ten history magazines, introduces aerial intelligence from balloons in the Civil War.
- Feis, William B. *Grant's Secret Service*, (University of Nebraska Press, 2004).
- Fishel, Edwin C. *The Secret War for the Union: The Untold Story of Military Intelligence in the Civil War*, (Houghton Mifflin Co., 2005). Fishel was a pioneer in discovering and writing about the relatively unknown use of intelligence in the Civil War.
- Varon, Elizabeth R. *Southern Lady, Yankee Spy*. (Oxford University Press, 2003). Varon is a professor of history at Wellesley. In this book, she describes in detail the activities of the Union spy in Richmond, Elizabeth Van Lew.
- Winkler, H. Donald, *Stealing secrets; how a few daring women deceived generals, impacted battles, and altered the course of the Civil War*, (Cumberland House Publishing, 2010). An overview of 36 women who spied for the Confederacy and the Union.
- Also see the Caesar Shift: [http://www.simonsingh.net/The\\_Black\\_Chamber/caesar.html](http://www.simonsingh.net/The_Black_Chamber/caesar.html).

Dr. Edward J. Glantz, P.E. completed his PhD in cognitive science and is currently a Professor of Practice in the College of Information Sciences and Technology at Pennsylvania State University, where he teaches courses in Security, Risk and Analysis. Dr. Glantz earned an MBA from the Wharton School of Business and undergraduate degrees in both Mechanical Engineering and General Arts and Sciences. Dr. Glantz is a Civil War reenactor (<http://www.148thpvi.org/>) along with his wife, Lisa, and three children.

**"Nothing is more dangerous than an intelligence colleague without discretion; even a prudent enemy is preferable."**

— with a nod to Jean de La Fontaine