

# ESSENTIAL CIVIL WAR CURRICULUM

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## Maps & The Civil War

By **Earl B. McElfresh**

The story of maps in the Civil War is really more the story of the lack of maps in the Civil War. It might be too much to claim that maps could somehow have changed the outcome of the war one way or the other. However, the effect maps (again really the absence of maps) had during the war is undoubted and can be repeatedly demonstrated.

It was the unusual, strictly sectional nature of this particular civil war that made maps far more of a factor for the Union. It was the Union forces that had by far the greater need for maps and it was the Union forces that were helpless without them. The Confederate army was operating in familiar surroundings and in the midst of a strongly supportive population. The poignant stories of Rebel soldiers dying on their own doorsteps or in their own fields indicate that within the ranks of their armies were men who knew the location of fording sites, the destination of roads, and the grade of mountain passes. They also had the advantage of a legion of spies in the local population. The sympathetic locals were not merely informing the Confederates, they were also misleading the Federals. It was an enormous advantage for the Confederates and under different leadership might possibly have been decisive.

Familiarity with the “topography” - which means the collective physical and cultural features of a given place: the rivers, the roads, the land forms, the population, the crops - is critical in any military operation. The lack of such knowledge is often catastrophic because familiarity with the theater of operations is a double-edged sword. A topographically informed commander knows what he can and cannot do. He also knows pretty well what his opponent can and cannot do. An opponent without reliable map knowledge is thus hobbled both offensively and defensively and ends up fretting blindly, wondering where the blows will fall.

This was especially true in the Civil War when maps were painstakingly designed to provide tactical/strategic information as well as logistical data. The armies of the North and South essentially walked the roads and lived off the land - which armies had been doing for centuries - but these were, by comparison, enormous armies, and much of the land was sparsely settled or semi-wilderness.

These factors combine to make Civil War maps particularly interesting military documents because the marching and maneuvering armies were so needy. The maps constitute a de facto inventory of mid-nineteenth century America because they try to show every cultural and physical detail along a route of march that would be of interest and necessary to an enormous road-bound army on the move. And as the armies of the North and South moved through this rural America, about the only thing neither army needed was guns and ammunition. The Federals uniquely did not need coffee. The Confederates did not need tobacco. In practical terms, neither army could haul food or water. But ten thousand horses and mules could consume one hundred thousand gallons of water per day.

A locale visited by a Civil War army - and it did not matter whether friend or foe - would be picked clean in a matter of hours. Wells were wrung dry, fences were torn down, fields were trampled, orchards were stripped, horses were requisitioned, cows and pigs were slaughtered, larders were emptied...and all this simply out of necessity. An army could not stop for long. A stalled army would quickly begin to starve

A good route map would identify orchards, crops, wells, fording sites (defined by the depth of water - 2 ½ feet - steepness of the banks, firmness of the bottom, speed of the current), taverns, general stores, blacksmiths, wheelwrights and other road services of the day, the road surfaces, sometimes the sympathies of residents, steepness of road grades, extent of woods, churches and other landmark buildings - any and all features that could affect the progress of a marching army utterly dependent on the resources immediately at hand. And since most of the armies were too large to march on one road, it was necessary to map practicable parallel roads as well as connecting roads so that a divided army could quickly reunite in an emergency.

An often remarked feature of these maps is the name of every resident along a given route. Mapmakers went to great lengths to get these names because on roads that were always unnamed and often indistinguishable - sometimes the road itself was merely a dry streambed - the names of residents were the only available guides, the only extant route markers.

Civil War maps were usually large scale (showing a small area in great detail) because the scale of a military map reflects the range of weapons in common use. Civil War armies typically fought within sight of one another and there was no necessity for a field map that extended, as they would in twentieth century wars, beyond the line of sight.

The distances indicated on these hastily drawn maps were mostly estimates but the estimates were expertly made. Topographical engineers gauged distances by the size of distant, familiar objects - fences and telegraph poles, cows and steeples, windows and haystacks. A scale may also be written as "1050 horse paces equal 1 inch." The pace of an engineer's horse was always known and automatically counted. The grade of a road was estimated by a quick comparison with a level foundation. In a panoramic view, rivers and rail road tracks provided a level perspective. Some of the puzzling features on Civil

War maps - things that seem curiously decorative on what is, after all a military document - were in fact strictly functional. Stands of prettily drawn pine trees were added to the maps because, dotted on distant hillsides, they formed distinctive natural landmarks.

The advantage the Confederacy enjoyed operating on familiar ground in the midst of a supportive population was immense and could almost have been decisive. From the beginning of the war until mid-1864, instances abound of Union forces on the verge of victory being thwarted by their topographical ignorance. As early as First Manassas, the Union delay locating a fording site at Sudley Springs allowed the Confederates time to shift their alignment and receive heavy reinforcements, both decisive features in the outcome of the battle. That the “green” Union forces had to march thirty miles, maneuver and attack, while their equally “green” enemy stood pat on the defensive points up the fact that the Union faced a daunting challenge in waging a sectional war.

Other examples abound. Major General George Brinton McClellan’s mistaking the course of the Warwick River was the first snag in the Peninsular Campaign that eventually came completely unraveled. Major General Thomas Jonathan “Stonewall” Jackson’s Valley Campaign might have ended in a disaster if Brigadier General James Shields had taken the Strasburg Road from Front Royal, fixing the Confederates on the Valley Pike while Major General John Charles Frémont converged from the west. Having no maps, Shields took the wrong route, the Winchester Road, and Jackson escaped into legend.

Major General Ulysses Simpson (Hiram Ulysses) Grant’s 1864 Overland Campaign, in several instances, both immediately before Cold Harbor, and immediately before the siege of Petersburg, might have inflicted defeats that the Confederacy could scarcely have survived but for topographical ignorance. Major General Winfield Scott Hancock’s Second Corps’ nighttime advance to Cold Harbor was led astray by a Union topographical engineer and ground to a halt on a road that dwindled to a path, stalling the artillery and eventually the infantry. The Confederates were not yet dug in and an assault, buttressed by Hancock’s Corps, might well have been a decisive Union victory. Similarly and only days later, the Army of the Potomac stole a march on Robert E. Lee and was on the verge of launching an attack on an almost completely undefended Petersburg. Again, Hancock was delayed in his advance by poor topographical intelligence and a faulty map and another once-in-a-lifetime opportunity eluded the Union army.

The enormous advantages of familiarity of terrain are borne out by the Confederate experiences operating in Maryland and Pennsylvania. Lee’s crossing of the Potomac River effected a sea change in the military environment of his army, most blatantly on his otherwise superlative cavalry. Jeb Stuart supplied erratic information to the infantry arm of the Army of Northern Virginia as the Antietam campaign developed. He failed in his primary reconnaissance mission of ascertaining both the intentions of the enemy – that they were aiming to cross South Mountain at Turner’s Gap - and their strength. He assured the infantry holding Turner’s Gap that they were facing a small enemy force. The

small enemy force was, in fact, four divisions of infantry. This would never have happened in Virginia. Reports on the strength and intentions of the Union forces would have poured in from all corners.

Similarly, Jeb Stuart's misadventures leading up to the battle at Gettysburg would never have happened in Virginia where, again, he would have been continually apprised of the presence of heavy Union forces by locals who would have swarmed to him with continually updated information. Instead, Stuart was ignorant of Union movements, or even that they were underway, and he stumbled across Union columns that he had to swing farther and farther afield to avoid and, in so doing, he found himself swung completely out of the entire theater of the Gettysburg campaign. These were not issues of good maps or poor maps. Neither Stuart nor Lee made any concerted effort to procure or commission maps. Lee didn't seem to understand that he might need maps. In the weeks leading up to the Gettysburg campaign the capabilities of the Confederacy's premier mapmaker, Jed Hotchkiss, were oddly misused. He guided the mortally wounded Stonewall Jackson's ambulance to Guiney's Station – a task any local Virginian could have undertaken – and he prepared an admittedly remarkable map of the Chancellorsville battlefield to accompany Lee's report of the battle. But this was a very strange priority given the fact that it was a bureaucratic detail. The Chancellorsville field after all was not going anywhere but the Army of Northern Virginia was. It was about to set off on the most challenging of military operations, a long march into unfriendly and unfamiliar territory.

In the case of both Robert E. Lee and Jeb Stuart, the inference has to be drawn that neither of them appreciated that they operated with an enormous – what we might call “home court” advantage – in Virginia. They seemed to attribute their military successes solely to the dash, audacity and élan of their leadership and the army they led. Lee and Stuart failed to understand or consider either the gravity or the nature of the challenges they would face when they crossed to the opposite bank of the Potomac River.

A broad overview of the Civil War would recognize the fact that in the western theater, rivers ran on a north/south axis which gave Union forces the ability to win battles even in unfamiliar territory. They could fight their battles and win their victories on the banks of these rivers (Fort Donelson, Shiloh, New Orleans, Vicksburg, Port Hudson) obviating the need for the marching and maneuvering that necessitated reliable maps.

The eastern theater had much more complex terrain and the rivers were impediments to advancing Union forces and not avenues. It took two grim years of advances, humiliations, defeats and retreats (chronicled rather accurately in the song “Richmond is a Hard Road to Travel”) before Union forces became almost as familiar with the topography of Virginia as their Rebel counterparts.

The most peculiar instance of maps affecting the Civil War came about in mid-1861 in western Virginia. General George B. McClellan rose to fateful prominence and cast his baleful shadow across the entire Union war effort largely because his subordinate,

Brigadier General William Starke Rosecrans, had an affinity for maps, used them well, and won victories with them at a time when the Union sorely needed a hero. Almost entirely by default, that heroic mantle landed on the hapless- general commanding, George B. McClellan.

There are some interesting asides about Civil War mapping. Major General William Tecumseh Sherman adopted the map expertise that had been handed down to Major General George Henry Thomas by William S. Rosecrans. Sherman is particularly noted for his use of census maps in planning what became his “March to the Sea” campaign. Less known is the fact that abolitionist John Brown similarly made use of census maps as he prepared his singular invasion of Virginia.

U.S. Grant, early in the war, was noted as constantly studying maps, largely on a strategic level. He had a photographic memory for graphic details and could look over a map once and retain the knowledge gleaned from his study.

New Yorker turned Confederate Jediaiah Hotchkiss is the best known of the Civil War mapmakers, but the war’s best maps were prepared by Union topographical engineers such as Brigadier General Orlando Metcalfe Poe, Brigadier General Nathaniel Michler, Brigadier General Peter Smith Michie and Colonel William Emery Merrill. There was really no comparison. Maps prepared by the U.S. Coast Survey, and by Union topographical engineers such as Bvt. Colonel William E. Merrill, Bvt. Brigadier General Nathaniel Michler and William E. Merrick are reproduced in Earl B. McElfresh *Maps and Mapmakers of the Civil War* (New York: Harry N. Abrams Inc., 1999). They are vastly superior productions to any maps Hotchkiss prepared. It is interesting to note that topographical engineers, whose advice would be sought before any other officer in the army, typically carried the lowly rank of a lieutenant or captain. The military bureaucracy blithely ranked them as officers leading small parties in the field.

Major General George Armstrong Custer is surely a notoriously well-known soldier. Less well known is the fact that he was very topographically adept and, in 1862 on the Virginia Peninsula, was preparing very respectable maps from 1,000 feet up in a hot air balloon.

It was standard procedure, particularly with Sherman’s armies in the west, to issue lithographed maps in the field and have the topographical engineers make comments and add and delete information as more data became available. One of the amusing comments was made on a map of the region just north of Atlanta, June 1864. The addendum: “Unable to find Lost Mountain.”

In summary; topography is the immense fact in military operations. It’s a geographical constant that determines where armies can march and where they will fight. On the eve of the D-Day landings, General George Patton was not pouring over aerial photographs of the Normandy beaches. Patton was studying the routes followed by

William the Conqueror through the French countryside. Knights in armor. Soldiers in tanks. It didn't matter. 1066 or 1944. Topography was topography.

Embarking upon the Civil War, the Union faced two formidable challenges. The Confederate army was one. The topography of the South was the other. And topography was the more daunting challenge. The politicians may not have recognized this – even President Lincoln, trained as a surveyor - but Major General Winfield Scott did. On paper, the Union had the men and the resources to carry the day. But wars are not fought on paper. What the Union utterly lacked was sufficient knowledge of the South's infrastructure and geography. Without this almost unknowable knowledge, it could not get its armies onto a southern battlefield in a condition to decisively exert its power.

The Confederacy had a single formidable challenge in the Civil War: the Union's military resources.

The dash and élan of the Confederate armies and its generals is credited with their gallant but hopeless struggle against the Union. But no war is hopeless or it would not have been fought. In 1861 and 1862, it was the professional opinion of the European powers-that-be that the Union had no hope in the world of subduing a rebellion being carried on with such unanimity of purpose across such immense swaths of territory, much of it near wilderness.

It is instructive and illuminating therefore to evaluate the Army of Northern Virginia and its vaunted commanders when marching, maneuvering and doing battle in unfriendly and unfamiliar territory, the type of theater that all the Union armies, in essence, fought in throughout the war.

General James Longstreet described General Robert E. Lee during the Gettysburg campaign as a man walking “over strange ground with his eyes shut.” Lee's biographer Douglas Southall Freeman characterized the general as “a blinded giant.” Neither of them mentioned that Union armies lurched equally blind into the Southern countryside of unnamed roads, few population centers and a bewildering nomenclature where a single locale might have six different names. Cold Harbor on the Virginia Peninsula was also known as Cool Arbor, Coal Harbor, Burned Cold Harbor, New Cold Harbor and Old Cold Harbor. Additional confusion might arise from the slight technicality that Cold Harbor was not, in fact, a harbor, nor even close to water.

One happy outcome of all the marching to and fro of the armies was that a previously insular people got to see and gain an appreciation of a great deal more of their common country than they would ever otherwise have done. Before the Civil War, the common phrase was “The United States are...” No particular sense of “e pluribus unum” here. After the Civil War, the phrase was “The United States is...” and so it remains.

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