

BLINDED GIANT

The Role of Maps in Robert E. Lee's Gettysburg Campaign

By Earl B. McElfresh

A perfect world appeared far below the two Union topographical engineers. On 4 June 1863, in mild weather, Major Washington Roebing and Captain William Henry Paine were riding high, peering southward to observe the Rebels of Robert E. Lee's Army of Northern Virginia. The willow basket of their observation balloon creaked like a harness.

Through field glasses and telescopes they intently, expertly, scanned the right bank of northern Virginia's Rappahannock River, near and about the town of Fredericksburg. The glasses went in and out of focus — the endless, uncomfortable motion of the balloons was their worst drawback — as the two mapmakers searched the enemy positions among the hills, farms, lanes, thickets, forests, and fields. A few miles to the west lay Chancellorsville, a crossroads clearing and burnt-down house where, just a month earlier, the tatterdemalion Confederates and their austere, aristocratic commander had thoroughly whipped the Union's massive Army of the Potomac.

Roebing and Paine made several ascensions that day, carefully comparing what they had seen earlier with what they saw now. The campfire smoke that had wreathed the tree tops was gone. Clouds of dust hung over roads to the south and west of the enemy's encampments. Paine went up alone twice the next day, once early in the morning and again at noon, to locate and count the Rebel cooking fires. He found none, but again saw dust beyond the smooth brown river. Smoke meant a stationary army. Dust meant movement.

Upon hearing of the Chancellorsville debacle, President Abraham Lincoln had asked Major General Joseph Hooker, commander of the Army of the Potomac, "What next? What next?"

Although it would take Roebing and Paine a month to realize it, what they had seen from their observation balloon in the first days of June was the opening movement of what would become the Gettysburg campaign, the Confederacy's deepest and most ambitious invasion of the North during the American Civil War. What next, indeed.

Months earlier, on 23 February 1863, Confederate general Stonewall Jackson had conferred with Jed Hotchkiss, his staff topographical engineer. Hotchkiss was a singular presence in Jackson's circle. Among the lieutenants, colonels, and majors, he was a civilian. Among the Virginians, he was a Northerner, a native of Windsor, New York, on the banks of the Susquehanna River. But he enjoyed Jackson's confidence, and many of his maps, particularly the one he had made for Jackson's brilliant Shenandoah Valley campaign in 1862, had proved instrumental in the Confederate general's success.

Jackson now asked Hotchkiss to prepare what for military purposes would be called a theater map, that is, a small-scale map that would encompass the entire region in which army maneuvers might be contemplated or carried on. The map was to include the lower (or northern) section of the Shenandoah Valley, northern Virginia, and large parts of Maryland and south-central Pennsylvania, as well as the cities of Harrisburg, Philadelphia, Baltimore, and Washington, D.C. — well over a thousand square miles of territory. Military operations require a certain amount of secretiveness, but Jackson could often be obsessively close about his plans, even with his trusted mapmaker. (One of his marches near Richmond, Virginia, went astray because he couldn't bring himself to tell his guide where he wanted to be led.) He ordered Hotchkiss to keep the map preparations "a profound secret."

Hotchkiss immediately returned to his tent, pitched on a hilltop on the grounds of the Corbin plantation at Moss Neck, several miles downriver from Fredericksburg. He went through his files and first located a published map of Cumberland County, in southeast Pennsylvania. He selected a blank sheet of heavyweight watercolor paper, thirty-eight by forty-two inches, and began to pencil in a grid that would eventually contain thousands of square centimeters. He then superimposed a similar grid on the Cumberland County map, so he could transpose it, reduced, onto his pencil-lined sheet.

Over the next days and weeks, Hotchkiss followed the same procedure on another dozen or so published county maps as he procured them. Each map was reduced or enlarged to bring it to a common scale for his theater map. Hotchkiss then assembled the maps and cobbled the borders between them to connect roads, rivers, mountains, and other salient contiguous features.

Hotchkiss simultaneously worked on a number of other mapping projects, illustrating army reports with map sketches of recent battles and copying maps for other commanders. As a result, the theater map remained a work-in-progress and was unfinished when Stonewall Jackson was mortally wounded in the fighting at Chancellorsville on 2 May 1863. The map finally presented to Robert E. Lee had either been poorly planned or its scope enlarged, because to complete it, a strip of paper thirty-eight by nine inches had been pasted across the top. Nevertheless, it became Lee's principal reference as he planned, launched, and waged the Gettysburg campaign. As such it provides an interesting glimpse into what the Confederate leader considered satisfactory for the topographical requirements of the most extensive military operation of his career. Anyone who witnessed Lee poring over this same map at his headquarters at Chambersburg, Pennsylvania, in

the days immediately preceding the battle at Gettysburg must have known the answer. It seems not to have occurred to Lee that he might have forfeited the tactical advantage of fighting on familiar ground amid a friendly population, such as he had enjoyed in his native Virginia. His embarrassed ignorance and anxious questioning about the lay of the land nearby clearly indicated that Hotchkiss's small-scale map was not satisfactory enough.



Detail of Jed Hotchkiss's "theater" map of Maryland and Pennsylvania, Robert E. Lee's principal topographical resource during the Gettysburg campaign of 1863.

Rodney Lee Gibbons/Courtesy of [Archives, Handley Regional Library, Winchester, Virginia](#)

The British military historian G.F.R. Henderson, who corresponded frequently with Hotchkiss after the war while researching a biography of Stonewall Jackson, wrote that it takes more talent to lead a large army on a long march than it takes to lead it in battle. The armies of the Civil War were enormously vulnerable to the lay of the land and to conditions on the ground. Although individual soldiers could clamber up mountainsides or breast their way across rivers, sizeable units could not. Wheeled vehicles — cannon, caissons, wagons, ambulances — were almost completely roadbound. And in practical terms, where the wagons could not follow, the soldiers could not go. Infantry in any significant numbers could not advance far beyond the cover of their artillery or the reach of their supplies.

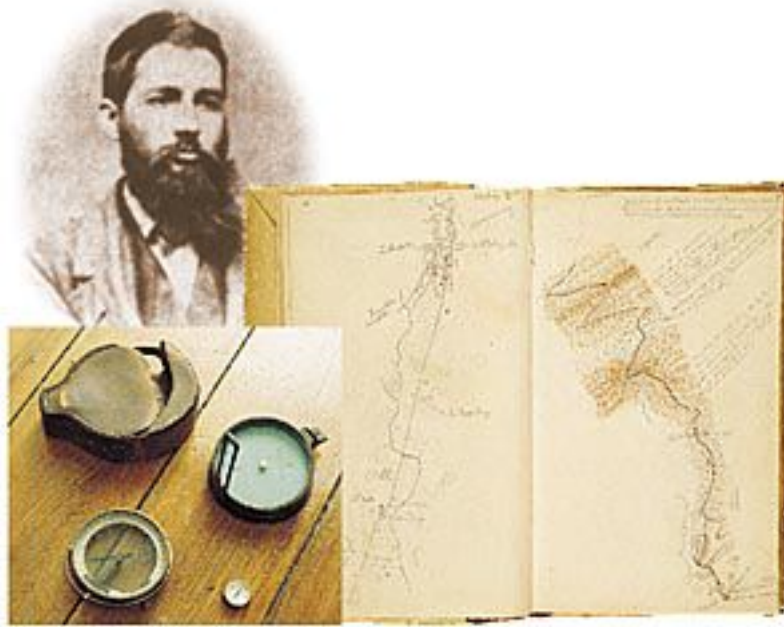
The limitations this logistical, tactical, and strategic fact imposed on a Civil War army could be eased only by an intimate knowledge of the ground upon which the army intended to maneuver and fight. And this knowledge, if not gained directly, could be gleaned only from large-scale military maps, themselves a compendium of other less-detailed maps, field sketches, reconnaissance reports, and any information that could be gathered from questioning individuals familiar with the territory ahead. The small-scale map Jed Hotchkiss prepared under Jackson's direction and later presented to Lee represented the first step, but only the first step, in meeting the requirements of Lee's massive Army of Northern Virginia as it invaded Maryland and Pennsylvania in the summer of 1863. However wondrous and stunning a production in its own right, the map was simply not detailed enough for a hungry, thirsty, straining army strung out for miles, advancing warily on multiple roads, and deep in unfriendly, unfamiliar territory.

The most notable feature of the map was its inclusion of virtually every rural resident's name as well as a multitude of cultural features: taverns, mills, blacksmith shops, and other nineteenth-century American "road services." For the most part Hotchkiss gleaned these details directly from the published county maps he copied. Because the publishers of these maps originally sold them by subscription, they made it a selling point to include the names and residences of as many potential subscribers as possible. The names served as route signs on roads otherwise unnamed and unmarked. Although directions to the next town might befuddle a local farmer, he could still point the way to his immediate neighbor, who in turn could point the army onward. These names also provided a general idea of the population density of a given area, which helped to determine where an army could march and find sufficient food and forage to maintain itself during its brief but voracious passage.

However, the military importance of such information was purely coincidental. What the theater map singularly lacked were the physical features that would have an immediate effect on the progress of the army and its ultimate deployment on the field of battle. Although a slight rise or descent could cause hours of delay — weary wagon mules and artillery horses forcing their way painfully uphill or cautiously down — the map showed only mountain ranges. The simple lettering of a town name could obscure a square mile or more of potentially critical ground. Woods, road surfaces, suitable fording sites, and other relevant information did not fit such a small scale and thus did not appear on the map. It would certainly be expected that as plans for an invasion loomed, Jed Hotchkiss would begin enlarging selected sections of his map and adding the numerous topographical details that would potentially figure in the proposed operations.

He would not be given that opportunity. Hotchkiss performed his last duty as Stonewall Jackson's topographical engineer when, on May 4, he guided the ambulance carrying the general — cut down by a misguided volley from his own troops — to safety behind the lines at Guiney's Station, Virginia. It was an odd assignment for a mapping specialist with the battle at Chancellorsville still raging and the start of the Gettysburg campaign a mere month away. Jackson, who died of his wounds on May 10, would never have considered or permitted such a misuse of a topographical engineer's talents. The route to Guiney's Station was well known; Hotchkiss was detailed to make certain the ambulance didn't lurch, bob, and jolt as it toiled along the notoriously bad Virginia roads. The Army of Northern Virginia's most talented mapmaker thus spent nearly two days on what was essentially a sentimental journey.

When he returned from Guiney's Station, Lee gave him another order, and it, too, revealed a very peculiar priority. On May 6, with the Union forces decisively beaten at Chancellorsville and retreating north across the Rappahannock River, Lee told the topographical engineer, in effect, "Make me a map of the Chancellorsville battlefield." It was an extremely odd request. The Chancellorsville battlefield was certainly not going anywhere, and in any event the preparation of a map to accompany a battle report was largely a bureaucratic detail, not a critical priority. In a mere twenty-eight days, the Army of Northern Virginia, some seventy-five thousand men strong, would start moving northward on one of the riskiest and most complex of all military operations — a long march into enemy territory — and yet it still lacked the necessary map or maps to do so. Hotchkiss spent every one of those days — "worked at map all day," according to virtually every entry in his journal — preparing an exhaustive and entirely inappropriate map of Chancellorsville.



With compass and barometer in hand, Hotchkiss surveyed the ground in advance of the army and made rough sketches of the terrain in his field sketchbook. As shown in his rendering of the landscape near Harrisonburg, Virginia, he included details that might figure in the army's march or its deployment in battle.

Rodney Lee Gibbons/Courtesy of [Archives, Handley Regional Library, Winchester, Virginia](#) and Courtesy of Geography and Map Division, Library of Congress, Washington, D.C.

Chancellorsville was Robert E. Lee's crowning tactical victory of the Civil War. He now sought to capitalize on that success by carrying the war to the largely complacent and rich agricultural region of western Maryland and southern Pennsylvania. He hoped to capture Harrisburg, Pennsylvania's capital, and threaten Washington, D.C., Baltimore, and Philadelphia. By capturing supplies and living off the land, he also hoped to relieve the war-scarred Virginia countryside of the burden of supporting two massive armies. The Union threat to the Confederacy's most vital western stronghold, Vicksburg, Mississippi, on the Mississippi River, provided further impetus. If Lee could shake up the war's eastern theater, he might be able to draw Union forces away from Vicksburg.

What Lee lacked most at this crucial juncture was time. He was distracted by the demands of statecraft. He spent much of the week following the battle at Chancellorsville in Richmond, reviewing the military situation with President Jefferson Davis and his cabinet, and pushing his plan for an invasion of the North. The heavy Confederate casualties sustained at Chancellorsville, particularly Jackson's death, also forced Lee to reorganize all three arms of his forces — infantry, cavalry, and artillery. Hard choices and bruised egos preoccupied the commander as he promoted some officers and disappointed others. His brilliant but simple cavalry commander, Jeb Stuart, spent a fair amount of time and expended a great deal of wear and tear on man and horse in staging massive cavalry reviews.

In short, the myriad logistical details of a large-scale march were being overlooked in the press of other activities — some vital, some frivolous; some necessary, some superfluous. And though Lee was probably never informed, another casualty of the misguided Confederate fire that felled Stonewall Jackson at Chancellorsville was Captain James Keith Boswell, Jed Hotchkiss's friend, tent-mate, nominal commander, and fellow mapmaker, who died instantly in the fusillade. Lee was therefore short of mapmakers on the eve of his longest, most sustained, and most ambitious military undertaking.

To a great extent Lee was insulated from the immediate effects of his carelessness about maps and topography. The movement of troops first discerned by Roebling and Paine in early June did not carry Confederate forces out of Virginia for two full weeks. And, as ever, Lee's maneuvers in Virginia were masterful. The Rebels moved with vaunted assurance amid scenes and fields of past triumphs, in the neighborhoods of their own farms, friends, and countrymen. Once Lee got his men across the Potomac River at Shepherdstown, Maryland, and nearby river fords, however, the dearth of military map information began to affect his operations. In terms of topographical intelligence, the river crossing at Shepherdstown was a sea change for Robert E. Lee.

Numerous factors converged to increase the difficulties of the Confederate army, onerous in any event, once it entered unfamiliar and hostile territory, significantly reducing its strength and efficiency. Morale suffered as the soldiers, accustomed to being regarded as conquering heroes on their home ground, faced the hostility and suspicion of Northern residents. Troops had to be detached to guard the lines of communications, protect the wagon trains, and escort couriers. The rear of the army could no longer be left to take care of itself. Stragglers would be captured, even killed, rather than fed and refreshed.

Keeping track of and coordinating these movements required more precise orders at the same time that knowledge was harder to come by and less reliable. Hostile Northerners didn't volunteer information; intelligence had to be scoured for and blindly evaluated. Mistakes were easier to make and harder to catch. Couriers galloped between and among the separated units carrying information and intelligence, but field commanders, loathe to risk their best men, tended to entrust these crucial missions to their most marginal soldiers. Orders, intelligence, and information were garbled or misunderstood or lost. Troops constantly backtracked, countermarched, took the wrong roads, and moved more cautiously, all of which fatigued and frustrated the soldiers and kept the animals longer in harness and with less time to graze.

The preponderant concern in planning a long-range movement is that the army does not so exhaust itself on the march that it is unable to fight with maximum efficiency on the battlefield. According to Walter H. Taylor, Lee's adjutant general, the Army of Northern Virginia, man for man, lost half of its effectiveness once it crossed the Potomac.

Lee clearly had intended to rely heavily on the reconnaissance capabilities of his veteran cavalry. In addition to their contributions on the battlefield, cavalry units typically fulfilled four functions for the rest of the army: guidance, protection, screening (i.e., masking the intention and destination of the army's movements), and intelligence. This last function included gathering critical topographical information, the minute cultural and physical details a commander could use to supplement the general information on small-scale maps.

In this instance, Jeb Stuart, whose dramatic flair had on several earlier occasions interfered with his common sense, planned a theatrical ride around the Union army. Completing the circle would bring him back to the right flank of the main army as it moved into Pennsylvania, presumably providing intelligence on the landscape and the enemy's whereabouts. But things went awry, and Stuart rode himself and his men (including Captain W.W. Blackford, his excellent topographical engineer) completely out of the campaign. Lee could not have foreseen Stuart's complete disappearance, but the loss of the bulk of his cavalry at this crucial moment proved yet again the military maxim that in war it is the unexpected that happens.

In the reorganization of the Army of Northern Virginia after the battle at Chancellorsville, Jed Hotchkiss had been detached to serve under General Richard S. Ewell, who had assumed command of the newly configured II Corps, which included many of the units that had served under Stonewall Jackson. Ewell's forces moved slowly west and north across Virginia, from Fredericksburg, through Culpepper and Front Royal into the Shenandoah Valley. Hotchkiss made maps of the route and at Winchester, Virginia, where elements of II Corps drove Union forces from the town, drew a battlefield map.

At this point in a campaign, under Jackson's command, Hotchkiss had typically advanced in front of the main army, surveying the nearby topography and the lay of the land ahead — information he would then use to provide his chief with both general verbal descriptions and rapidly sketched graphic renditions in colored pencil. In short, he would be filling in the blanks on large-scale military maps. However, there is little evidence that Hotchkiss made these kinds of surveys as he traveled with Ewell into Maryland and Pennsylvania. And nowhere in his sketchbooks are there examples of the kind of detailed sketches or maps that such reconnaissance would have informed. He almost certainly spent most of the march into Union territory copying and tracing county and other small-scale maps for Ewell and his division commanders.

Robert E. Lee's "coup d'oeil," the ability to quickly grasp the terrain and turn it to military advantage, had worked extremely well as he brought his army down the Shenandoah Valley and up its northern extension, the Cumberland Valley. Both protected and hidden from Union forces by the Blue Ridge and South Mountains, Lee managed for weeks to keep both the War Department in Washington and Army of the Potomac headquarters in the field uncertain as to the size and intentions of the mysterious Rebel force. But if the North didn't know where Lee was, neither did the Rebel commander know where the Army of the Potomac was. In fact, it was no longer south of the Potomac, as Lee mistakenly believed. Union forces had already crossed the river and were making their way cautiously and ponderously north, toward the Army of Northern Virginia. A march had been stolen on the stealer of marches.

Lee's lack of topographical and military intelligence caught up with him at Chambersburg, Pennsylvania, a town due west of Cashtown Gap, the widest, straightest, and most level of the nine major openings through the mountains. With his forces arrayed in a broad arc reaching north and east as far as Wrightsville, York, and the outskirts of Harrisburg, Lee stalled there in late June, anxiously awaiting news of the enemy's location from Stuart. He fervently believed that Stuart, who had been instrumental in many of his earlier successes, merely had nothing to report, but he grew increasingly concerned as the days passed without word. Lee biographer Douglas S. Freeman described the general as "a blinded giant." One of his corps commanders, General James Longstreet, described the situation of the army as that of a man walking "over strange ground with his eyes shut."

Lee spent much of his time at Chambersburg pondering the Hotchkiss theater map and the small-scale county maps that had been requisitioned, confiscated, or captured during the previous days, but their details were too skimpy to be of much use. He turned to one of his generals, Isaac Trimble, who had been a civil engineer in southern Pennsylvania before the war, hoping to get some topographical insights about the immediate vicinity. "Almost every square mile" contained good positions for "battle or skilled maneuvering," Trimble replied, encouraging but worthless information. Every square mile might be fine for Trimble, but Lee had to know where to deploy

his army. He conferred with high-ranking subordinates such as Longstreet, A.P. Hill, the commander of III Corps, and Lafayette McLaws in an attempt to come to grips with the lay of the land east of the mountains.

When the information Lee had confidently and then desperately awaited from Jeb Stuart finally arrived, it was delivered not by Stuart or one of his men, but by Henry T. Harrison, an irregular scout in Longstreet's pay. On the evening of June 28, Harrison told Longstreet that Union forces, in strength, were at that moment in and near Frederick, Maryland, and moving north and west toward Lee. The Army of the Potomac was much closer and posed much more of a threat than Lee thought possible, given the complete lack of warning from Stuart. But the news couldn't be discounted, and Lee quickly began to reconstitute his widely dispersed forces. Orders went out to Carlisle, York, and Harrisburg to deploy in Cashtown, a small hamlet east of the Cashtown Gap, or Gettysburg, a bustling community along a rail line and at the center of a number of strategic regional roads.

General Ewell was in Carlisle, where he had been planning the attack on Harrisburg, when Lee's preemptory order to regroup arrived. It put him in a dark mood. He roused Hotchkiss in the middle of the night to draw a map, probably a tracing of an Adams County map, and to answer questions, presumably about the likeliest routes to Cashtown and Gettysburg. Moving early the next morning, June 30, Ewell's forces marched west, and part of his command, including Hotchkiss and another topographical engineer, Eugene Blackford (younger brother of W.W. Blackford), passed through Papertown, the site of the Mount Holly Paper Company. Both engineers stopped, but only Blackford actually acknowledged taking reams of its excellent drawing paper. Hotchkiss must have been culpable as well, because a set of his maps in the Library of Congress are on stiff, heavyweight watercolor paper sturdily embossed "Mt. Holly Paper Co., PA."

The battle of Gettysburg was mismanaged and went poorly for the Confederates, reflecting their unfamiliarity with the terrain and Lee's increasing lack of control over his field commanders as the Army of Northern Virginia moved farther and farther from home. On the eve of battle he still hoped to assemble his entire army and attack the enemy before it could fully form, but events quickly outstripped his plans. On July 1 advance units of both armies converged on Gettysburg, where, according to a widespread rumor, a huge cache of shoes had been stored. The two sides initially clashed just west of town, and the Confederates succeeded in pushing the Union forces south through town and beyond. However, they did not follow up on their early success and allowed the enemy to occupy the strategic high ground and fortify its position. Lee's complex tactical plans for July 2 were delayed, second-guessed, stretched to the limit, and even ignored by his field commanders, resulting in an uncoordinated and ineffectual attack on the entrenched Union position. July 3 opened with another uncoordinated Confederate attack and culminated, over Longstreet's strenuous objections, with George Pickett's infamous charge.

Throughout the battle success had gone unreinforced and failure unaddressed. Moreover, the Confederate battle plan seemed to proceed with little sense of the surrounding terrain. Indeed, what Confederate general E. Porter Alexander observed about the battle could have applied to the campaign as a whole: "...there seems to be a lack of appreciation of the immense figure which the character of the ground may cut in the results of an aggressive fight. Not only was the selection about as bad as possible, but there does not seem to have been any special thought given to the

matter. It seems to have been allowed to select itself as if it were a matter of no consequence.”

Jed Hotchkiss, who sketched the battle as it unfolded over those three long days, rose before dawn on July 4 to make a map of potential routes back to Virginia. Lee conducted a masterful retreat. His troops, in retracing their steps, at last found themselves operating on familiar ground. Lee got his army across the Potomac River before the Union could inflict serious damage. But there was a final, ironic indignity when the exhausted men of Ewell's corps breasted the swollen river at Williamsport, Maryland, on July 14. The muddy river bottom dragged eight thousand pairs of shoes off the struggling soldiers' feet. After a campaign initiated partly to gather in supplies, and a battle brought on partly to get hold of some shoes, many of the men of the Army of Northern Virginia were coming back to Virginia in their bare feet.

Robert E. Lee sturdily accepted all of the blame for the outcome of the Gettysburg battle and campaign. He got very little of it. Two of his subordinates, James Longstreet and Jeb Stuart, refused to accept any of the blame and got nearly all of it. But it is clear that Lee failed to recognize the magnitude of his undertaking and failed to thoroughly consider the necessities of the case. Had adequate mapping preparations been made, it might possibly have affected the outcome of the campaign. Knowledge is power, and Lee lacked knowledge at Gettysburg.

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