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Blueprint for Glory

Organizational Changes in the Army of the Potomac Prior to the Battle of Gettysburg

CHARLES R. NORVILLE

The Army of the Potomac under the command of Maj. Gen. Joseph Hooker faced a very real crisis in May 1863. Already reeling from its recent defeat at Chancellorsville, the army was about to lose fifty-five veteran infantry regiments in May and June due to the expiration of their terms of service. When combined with the more than 17,000 casualties sustained at Chancellorsville, the army would embark upon the next campaign reduced by some 40,000 men.¹ Clearly, major organizational reforms that would affect all three of the army's combat arms—infantry, cavalry, and artillery—would be needed in the face of such losses.

To be sure, the Army of the Potomac was a hardened and veteran force, although one beset by organizational and leadership problems and a record of failure. Chief among the army's problems were high rates of unit loss and replacement, frequent leadership turnover at mid- and upper-echelons, and an organizational structure that had been rendered largely obsolescent by evolving battlefield conditions. Major organizational changes were in the offing.

As the army approached the field at Gettysburg, its basic structure would appear largely unaltered from its Chancellorsville configuration; the army in both campaigns comprised seven infantry corps with their supporting artillery, an artillery reserve, and a cavalry corps. However, this macro picture obscures the myriad disruptive organizational changes that had altered the composition of nearly every unit in all three branches of service. These changes, combined with the mustering out of so

Table 1.

Units	Chancellorsville	Gettysburg
Infantry Rgt	274	238
Cavalry Rgt	27	36
Artillery Bty	77	67

Source: John W. Busey and David G. Martin, *Regimental Strengths and Losses at Gettysburg* (Highstown, NJ: Longstreet House, 1986) 16–117; Stephen W. Sears, *Chancellorsville* (New York: Houghton Mifflin Company, 1996), 453–67; Bigelow, *Chancellorsville*, 502–04; *Official Records*, 25:2.320; *Battles and Leaders of the Civil War* (New York: The Century Co., 1884–1889), III, 237.

many veteran regiments and the assignment to the army of replacement units placed inexperienced commanders in unfamiliar leadership positions, broke up veteran formations, grouped units together that had no previous experience in working as a team, and radically altered the organizational and command structures of the artillery and cavalry arms. A closer look at each of the three combat arms reveals the extent of the disruption and its potential impact on the subsequent Gettysburg Campaign.

The Backbone of the Army: The Infantry

The infantry was by far the army's largest combat arm, constituting 79 percent of its personnel on the field at Gettysburg, as compared to 13.5 percent for the cavalry and 7.5 percent for the artillery.² It was the infantry that took and held ground, and in so doing, decided the outcome of the battle. Infantrymen inflicted the vast majority of casualties in

¹ Edwin B. Coddington, *The Gettysburg Campaign: A Study in Command* (New York: Charles Scribner's Sons, 1968), 38; John Bigelow Jr., *The Campaign of Chancellorsville* (New York: Smithmark Publishers, 1995), 473.

² Compiled from James M. McPherson, *Battle Cry of Freedom: The Civil War Era* (Oxford, U.K.: Oxford University Press, 1988); William F. Fox, *Regimental Losses in the American Civil War, 1861–1865* (Dayton, OH: Morningside Bookshop, 1985); Thomas W. Livermore, *Numbers and Losses in the Civil War in America, 1861–65* (Dayton, OH: Morningside Bookshop, 1987); and Busey and Martin, *Strengths and Losses*, 16–117.

battle—some 80 percent by one official 1864 accounting—and the “Poor Bloody Infantry” suffered casualties in proportion.³

As he prepared for the post-Chancellorsville renewal of the contest, Hooker realized that his infantry arm would experience the greatest turmoil due to the loss of so many veteran regiments. The infantry as a whole stood in sore need of a comprehensive reorganization. Its seven infantry corps were too many

for one man to command effectively in battle and they lacked sufficient combat power to operate independently. Further, a single Union corps was no match for one of the large, powerful infantry corps of Gen. Robert E. Lee’s Army of Northern Virginia.

That meant that two or three Federal corps often had to act in concert for the duration of an offensive mission to achieve sufficient mass for success. In previous battles, unity of effort had frequently broken down at corps boundaries due to the need for the various corps commanders to cooperate with each other in the heat of battle. Corps commanders generally had their hands full fighting their own troops without having to synchronize their movements and actions with other units they did not command and often could not even see in the broken and partially wooded countryside where most

Maj. Gen. Joseph Hooker. National Archives and Records Administration.

engagements took place.

In particular, the need to coordinate the army’s weak corps and divisions made offensive operations awkward and difficult in the absence of a firm guiding hand. Unless an overall commander was appointed for multi-corps operations, co-equal command of the various corps could devolve into a test of wills or a battle of personalities with each corps commander doing what seemed right to him at the time based on his myopic

view of his section of the line. In short, operations involving multiple corps acting in concert generally lacked unity of command and often failed as a result.

Exacerbating the problem of controlling multiple corps in battle was the uneven size of the various commands. Corps structures had been uniform when they were first created in 1862. Maj. Gen. George McClellan’s newly created corps on the Peninsula generally contained three divisions of three brigades each, giving each corps and each division in the army roughly the same combat power as all of its counterparts.⁴ McClellan’s middle- and upper-echelon units were, in essence, interchangeable parts with comparable combat capabilities. This greatly simplified his tasks of battlefield com-

³ *Official Records*, 36.1:264–265. See also *OR*, 36.1:225, 237, 241, 251, 261.

⁴ The Third, Fourth, and Fifth Corps each had three divisions on the Peninsula, whereas the Second and Sixth Corps contained two. All divisions contained three brigades. *OR*, 11.1:279–84; *Battles and Leaders II*, 313–315.

mand and control. McClellan could readily visualize where his strengths and weaknesses lay on the battlefield based on the number of units at a given location. For attack or defense, McClellan needed only to determine the amount of combat power required for a particular mission and then allocate as many corps or divisions as were required to accomplish the task.

By May 1863, corps compositions had become uneven and the loss of fifty-five regiments, distributed unevenly across the army, would only make matters worse. Hooker's seven infantry corps contained either two or three divisions, as many as ten and as few as six brigades, and from twenty-six to forty-seven regiments each. Similarly, the army's infantry divisions contained from two to four brigades with from seven to nineteen regiments per division. Even the brigades varied greatly with from two to seven regiments in each.⁵ In theory, a three-brigade division should have half again the combat power as one with only two brigades, and a four-brigade division, twice as much. Hooker, and later Meade, had to factor in the strength of a corps or division before determining whether it was suited for a particular mission.

This unevenness led to inefficiency. Units of differing strengths would have to be mixed and matched to achieve the right amount and balance of force. Allocating more strength than was required resulted in wastage. Assigning less combat power than was required risked failure. In short, Hooker's decision not to restructure his infantry corps made his job of command more difficult and left the army poorly suited for large-scale offensive operations. Finally, accompanied by large army and corps supply trains, Federal corps could not march as rapidly or mass as quickly on the battlefield as their more nimble Confederate counterparts.

Ironically, many of these disadvantages were mitigated somewhat when the army was fighting defensively. In defensive combat, the need for movement was minimized and the need for coordination between adjacent corps was lessened as long as the front remained relatively static. Units needed only tie in their flanks with adjoining units to present a unified front to the enemy. Frontages could be lengthened or shortened based on a corps' available

strength. Artillery could be sited in the most advantageous positions to cover as much of the front as possible with overlapping supportive fires, and the corps' batteries could be augmented by additional guns from the Artillery Reserve as necessary. The commanding general could feed in reinforcements to stem an impending enemy breakthrough or bolster vulnerable parts of the line with his reserve infantry and artillery.

Aside from these advantages, the defensive was regarded by the theoreticians of the day as being the stronger form of warfare. This was due in large part to the greater effectiveness of artillery when operating at shorter ranges (and the Federals had abundant and superior artillery), but also to the fact that a higher volume of fire could be generated and sustained by infantry units that did not have to move than by units that had to advance and fire simultaneously. Added to these, defending units can make better use of the advantages offered by the terrain. Finally, units fighting on the defensive did not need to perform complicated maneuvers, or even to move at all in some cases offsetting somewhat the difficulties of coordinating unevenly sized units. Thus as poorly organized for offensive operations as it was, the Army of the Potomac, with its significant superiority in men and guns, could be a formidable opponent when defending a static position as actually transpired at Gettysburg.

Prior to Chancellorsville, Hooker had abolished the "Grand Divisions" of his predecessor, Maj. Gen. Ambrose Burnside. These had grouped two army corps together under the command of the senior corps commander. "Grand Divisions" or "Wings" gave Burnside and his predecessors fewer commanders to whom to issue orders while providing more combat power to each of the subordinate commanders. The creation of a temporary intermediate command echelon between the various corps and the army commander constituted a tacit admission of the inadequacy of the current corps organizational structure. Despite his recognition of the problem, Hooker, like his predecessors, chose not to address the larger issue by restructuring his infantry corps into fewer but larger and more powerful formations. That much-needed restructuring would have to wait another year and another army

⁵ OR, 25.2:320; Bigelow, *Chancellorsville*, 502-04.

commander.⁶ However, Hooker could not avoid the myriad smaller, disruptive changes that were now forced upon him.

Two factors featured prominently in the changes to the army's infantry arm in May and June 1863. These were the loss of fifty-five veteran infantry regiments and the augmentation of the army by units drawn from the defenses of Washington and elsewhere.⁷ The resulting elimination, consolidation, or augmentation of existing brigades and divisions altered the composition of every corps and division in the army and most of its brigades. In fact, by the time the army entered combat at Gettysburg, only fourteen of the fifty-eight infantry brigades present at Chancellorsville would remain compositionally unchanged. Nor would the impact be evenly distributed across the army. The reorganization hit some units harder than others due to the uneven nature of the regiment losses.

The crisis was precipitated by Federal recruitment policies earlier in the war. Once it had become apparent in the summer of 1861 that the war would last longer than originally anticipated, Federal authorities began recruiting new infantry regiments for two or three year terms instead of the three-to-twelve month terms offered previously. Subsequently, the Confederate incursion into Maryland in September 1862 had led to an emergency call for nine-month regiments with which to meet the crisis. Now, in a perfect storm of coincidence, thirty-five of the army's 1861 two-year infantry regiments and twenty-five of the 1862 nine-month regiments would muster out in May, June, and July. Between the end of April and mid-June, approximately 23,000 veteran soldiers—roughly 20 percent of Hooker's infantry—would be lost to the army. Hooker's only recourse was to consolidate his remaining infantry units pending the arrival of new-

ly recruited regiments that would not reach him in time to participate in the upcoming campaign. Further, units newly assigned or re-assigned to the army from other areas would have to be integrated into the existing corps, division, and brigade structures.

The army's Fifth Corps is illustrative of the kinds of organizational changes that rattled the infantry arm in May and June as it both lost and gained regiments during that period. The Corps at Chancellorsville comprised three divisions with 39 regiments distributed among its eight subordinate brigades. Ten of the Corps' regiments mustered out in May and three more in June.⁸ The Third Division's two brigades lost six of their eight constituent regiments. Now orphans, the two remaining regiments of that division were transferred to the Second Division's Third Brigade, thereby eliminating the Third Division altogether.⁹ Six additional regiments mustered out of the three brigades in the First Division and one regiment was lost from the Second Division during the same period. None of these was replaced from outside the Corps leaving three of those brigades much weakened and one brigade augmented by the transfer of the two remaining regiments of the former Third Division. Finally, one regiment was transferred from the Second Brigade/Second Division to the First Brigade of the same division. Thus, two brigades ceased to exist altogether and all six of the remaining brigades in the corps had suffered organizational changes through the loss, addition, or both of one or more regiments. Completing the Corps' transformation, two of the three brigades of the Pennsylvania Reserve Division (containing nine regiments) were transferred to the army in June from the defenses of Washington and assigned to the Fifth Corps becoming the its new 3rd Division. As it approached the field at Gettysburg, the corps comprised three divisions, eight bri-

6 The Army of the Potomac under the command of Maj. Gen. George Meade, was restructured on March 23, 1864, by the reassignment of the regiments and brigades of the disbanded First and Third Corps to the remaining Second, Fifth, and Sixth Corps. *OR*, 33.1:717–18.

7 Only the 13th, 14th, and 16th Vermont fought at Gettysburg. The 12th and 15th Vermont remained with the army, but were guarding supply trains during the battle. All five of these Vermont regiments mustered out shortly after Gettysburg. Compiled from *OR*, 25.1.156–70; *OR*, 27.1.155–68 Busey and Martin, *Strengths and Losses*; 16–117; Frederick H. Dyer, *A Compendium of the War of the Rebellion, Compiled and Arranged from Official Records of the Federal and Confederate Armies, Reports of the Adjutant Generals of the Several States, The Regular Army Registers, and Other Reliable Documents and Sources* (Dayton, OH: Broadfoot Publishing Company, 1978), I, 272, 323; Bradley M. Gottfried, *Brigades of Gettysburg: The Union and Confederate Brigades at the Battle of Gettysburg* (Cambridge, MA: Da Capo Press, 2002), 269–81.

8 Dyer, *Compendium*, 1219, 1406–1414, 1577–1583, 1614–1615.

9 The disbanded Third Division's two general officers, now without commands, were transferred from the Fifth Corps. Corps commander, Maj. Gen. George Meade, deeply regretted the loss of the division's commander, the capable Brig. Gen. Andrew Humphreys, who was reassigned to command the Third Corps' Second Division, noting, "He is a most valuable officer, besides being an associate of the most agreeable character." Meade made Humphreys his chief-of staff shortly after Gettysburg. Brigade commander Brig. Gen. Erastus Tyler was lost to the army entirely, being reassigned to the Baltimore defenses where he served for the remainder of the war. George Gordon Meade, II, ed., *The Life and Letters of George Gordon Meade* (New York, Scribner's, 1913), I, 378; Warner, *Generals in Blue*, 241, 515.

gades, and thirty-five regiments and looked nearly identical to its Chancellorsville configuration.

The net loss to the Fifth Corps of four regiments (from thirty-nine to thirty-five) does not begin to tell the story of the disruption caused within its ranks. In fact, on paper, such a loss seems almost trifling in a Corps of over 13,000 officers and men. Such was hardly the case.

Consider, for example the experience of the Fifth Corps' Third Brigade/First Division. At Chancellorsville the brigade had been commanded by Col. Thomas Stockton of the 16th Michigan and consisted of six regiments—the 20th Maine, 16th Michigan, 12th New York, 17th New York, 44th New York, and 83rd Pennsylvania. The 12th and 17th New York mustered out in May and June, respectively, and were not replaced, leaving the brigade with only four regiments. Colonel Stockton resigned from the army in May, and Col. Strong Vincent of the 83rd Pennsylvania assumed command of the brigade by virtue of seniority—a post he had not held before. Vincent's elevation to brigade command left Capt. Orpheus Woodward in command of the 83rd Pennsylvania and in cascading fashion, left the command of Woodward's company in the hands of its senior lieutenant. Stockton's resignation left Lt. Col. Norval Welch in command of the 16th Michigan—a post he had held since Stockton had assumed brigade command. Thus, the brigade entered combat on Little Round Top on July 2 reduced by a third, under a commander with no experience at that level of command and with one of its four remaining regiments commanded by a captain with no experience at regimental command.

Even that description does not convey the extent of the disruption faced by the Third Brigade. One anecdote, depicted in the movie, *Gettysburg*, provides an illustration.¹⁰ The 2nd Maine was one of the regiments that mustered out of the Fifth Corps in June. Most of the regiment's original enlistees had signed on for two years of service. However, some enlistees signed on for three years. When the regiment mustered out on June 9, 1863, there remained approximately 125 men who were bound to serve for an additional year.¹¹ Their bonds were to the 2nd Maine and they felt entitled to go home

with their comrades, but the army took a different view. As Colonel Vincent's brigade contained the only other Maine regiment in the Fifth Corps, these disgruntled men were assigned to the 20th Maine under Col. Joshua Chamberlain only days before the regiment fought at Gettysburg.

Other regiments throughout the army had to contend with the same issue and it was dealt with in a number of ways. The 5th New York in the Third Brigade/Second Division/Fifth Corps suffered a similar fate with its three-year men being assigned to the 146th New York in the same brigade.¹² Some men from other regiments had to change brigades, and in some cases, changed divisions, to serve out their time. In other regiments, the remaining three-year men were reorganized into two or more companies and designated as a battalion bearing the original regiment's number.¹³ Such was the case with the 59th New York whose two-year men mustered out on May 7. The remaining men were consolidated into a battalion of four companies and fought in that configuration at Gettysburg.¹⁴ Some of these battalions were assigned within the various corps for provost duty. Finally, some companies that had been recruited for two years were originally assigned to three-year regiments. When these companies mustered out, those regiments were left with fewer than the authorized ten companies, and were reduced in strength accordingly.

The loss of two regiments from Vincent's brigade, the assignment of disgruntled men to a veteran regiment, and the assumption of brigade command by an inexperienced officer sounds bad enough, but still falls short of describing the level of disruption felt by the men in the ranks. The loss of familiar associations forged in battle were particularly sorely felt.

Infantry Regiments and Cohesion

Regiments were the basic building blocks of both armies in the Civil War. They began their existence as large and inexperienced bodies of recruits. Through drill and practice, recruits began to learn the rudiments of army life. They had left behind all

¹⁰ Turner Pictures Inc., *Gettysburg*, 1993.

¹¹ Dyer, *Compendium*, II, 1226.

¹² Dyer, *Compendium*, II, 1406–07.

¹³ In Civil War parlance, the most common usage of the term "battalion" was to denote a unit that consisted of more than one company, but fewer than the ten required to constitute a regiment. Thus battalions could contain anywhere from two to nine companies.

¹⁴ 59th New York Infantry Regiment: Civil War, <http://dmna.ny.gov/historic/reghist/civil/infantry/59thInf/59thInf.Main.htm>.

that was familiar—family, friends, a way of life—and embarked on a new career with an entirely new set of rules concerning how they were to live and even which decisions they could make for themselves.

As the men of the regiment served together, they gained experience in camp living, in fieldcraft, and in combat, becoming increasingly proficient in each. Through shared hardship and privation, long, dusty marches, sleepless nights in the pouring rain, exposure to the cold of winter and the heat of summer with insufficient shelter, and in sanguinary battles among friends and comrades wounded and dying in gruesome and terrifying ways, soldiers formed deep bonds with their fellow sufferers. And they developed pride in themselves and in their regiment—a pride outsiders who had not shared their privations, hardships, and suffering could not fully understand and could never be a part of.

Over time, veteran regiments become more than a collection of identically armed, trained, and equipped men. They developed what in today's military terminology is referred to as cohesion. Maj. Richard Hooker Jr., defines cohesion as "the bonding together of unit members to enhance and sustain their commitment to each other, the unit, and the mission." He notes that "While soldiers may draw real strength from unit pride, their ability to persevere and remain determined in the face of mounting combat stress is primarily a function of small-group solidarity."¹⁵ In highly cohesive units, the overriding consideration of a soldier becomes the desire not to let his comrades down, place them in greater peril, or disgrace himself in their eyes. Individual soldiers subordinate their personal interests to those of their units, even to the point of placing their own survival second to the protection of their comrades and the accomplishment of the unit's assigned mission.

Unit cohesion in veteran units is a force multiplier. A smaller but highly cohesive regiment is more difficult to break than one that lacks cohesion, even though it may be larger. Cohesion makes bodies of soldiers more formidable and determined in the attack and more staunch and resolute in mounting a defense. Cohesion permits units to remain combat

effective even after sustained intense action entailing heavy losses.¹⁶

Accomplishments and honors gained on past battlefields inspire veteran soldiers to preserve the memory of those who have gone before and to uphold the honor of their regiment. Each soldier feels a sense of pride in the history of his unit that members of green units lack. "I would rather be a private in this reg[iment] than a captain in any other that I know of," wrote one sergeant in the highly cohesive 1st Minnesota Infantry.¹⁷

In the same way, regiments that have been brigaded together learn to trust and depend upon each other. They must learn to work with each other as a team. Over time, mutual respect and trust based on shared experience and past performance on the battlefield are established. Under normal conditions, a brigade should develop its own cohesion, rendering it capable of enduring great hardship and privation and still emerging as an effective and efficient fighting force. But time is not the only factor conducive to the creation of highly cohesive brigades. Compositional stability and competent leadership continuity over time help create the conditions crucial to the creation of highly cohesive units.

And therein lies much of the problem associated with the high unit turnover rate in the Army of the Potomac's constituent brigades. Author Paddy Griffith summarizes the importance of brigade continuity and the dangers of the lack of the same thus:

Much of a regiment's resilience in battle depended on the length of time its men had been campaigning, and especially the length of time they had been living together as a unified team. Institutional continuity was of great importance for morale, particularly at the lower levels of command. Thus it scarcely seemed to matter to members of Burnside's IX Corps when they were shuffled from the Virginia theater to the Carolinas, then to Kentucky, and then on to Vicksburg and back to Kentucky and Virginia again. They remained the IX Corps regardless of who commanded the 'section' or 'army' to which they were attached. Equally, a division could change

¹⁵ Major Richard D. Hooker Jr., USA, "Building Unbreakable Units," *Military Review*, July-August, 1995, 25-35.

¹⁶ *Military Review*, 25-26.

¹⁷ Sgt. Matthew Marvin, 1st Minnesota Volunteers in a letter to his brother, December 24, 1862, manuscript, Minnesota Historical Society, quoted in Bell I. Wiley, *The Life of Billy Yank: The Common Soldier of the Union* (Baton Rouge, LA: Louisiana State University Press, 1952), 320.

its corps without too much friction, and a brigade might even change its division—although that might sometimes cause problems. When a regiment changed its brigade, however, there was an almost inevitable period of suspicion to be endured before it would be fully accepted, and this could sometimes spill over into failures of cooperation and coordination on the battlefield.¹⁸

The same would hold true for a new regiment assigned to a veteran brigade, particularly if that regiment was a green one with no combat experience, as was so often the case.

A brief statistical illustration highlights the high turnover rate within the Army of the Potomac and its predecessor organizations over the preceding two years of conflict. The Battle of First Manassas was fought on July 21, 1861, slightly less than two years prior to Gettysburg, and the Seven Days Campaign (June 25 - July 1, 1862) was fought almost exactly one year before. Forty-nine infantry regiments were present at First Manassas.¹⁹ Of those, twenty-two (45 percent) were still with the army during the Seven Days a year later and only sixteen (32.6 percent) were present at Gettysburg two years later.²⁰ Of the 151 Union regiments that served with the army during the Seven Days, 107 (70.9 percent) were still with the army at Gettysburg. Overall, at least 407 infantry regiments served with the Army of the Potomac and its predecessor organizations prior to the Gettysburg Campaign. Of these, only 247 (60.7 percent) remained with the army in July 1863.²¹ In contrast, 80.6 percent of the approximately 216 infantry units that had served with the Army of Northern Virginia and predecessor commands since the start of the war were still with that army at Gettysburg revealing much greater regimental and brigade stability.²²

¹⁸ Paddy Griffith, *Battle Tactics of the Civil War* (New Haven, CT: Yale University Press, 1987), 93.

¹⁹ Compiled from OR, 2:314–15; John Hill, *The Battle of Bull Run: The Campaign of First Manassas* (Fairfax, VA, Cartographics, Inc, 1991), 6–7; *Battles and Leaders I*, 194.

²⁰ Compiled from *Battles and Leaders II*, 313–15; OR, 27:1:155–68; Busey and Martin, *Strengths and Losses*, 16–115; *Battles and Leaders III*, 434–37; Dyer, *Compendium*, 1281.

²¹ Compiled from OR, 2:314–15; OR, 11:1:279–84; *Battles and Leaders II*, 200, 218–19, 313–15, 495–96; OR, 12:3:308–13, 581–88; OR, 19:1:169–80; OR, 21:48–61; OR, 25:1:156–70; OR, 27:1:155–68; OR, 27:3:794–806.

²² Compiled from OR, 2:469–70; OR, 11:3:479–84, 531–33; OR, 11:2:483–89; *Battles and Leaders II*, 300–01, 496; OR, 12:2:546–51; OR, 19:1:803–10; OR, 21:538–45; OR, 25:1:789–94; OR, 27:2:283–91.

Table 2.

<i>Corps</i>	<i>Regiments Lost</i>	<i>Regiments Gained</i>	<i>Net Change</i>
First Corps	11	5	-6
Second Corps	7	4	-3
Third Corps	5	1	-4
Fifth Corps	13	9	-4
Sixth Corps	11	0	-11
Eleventh Corps	1	0	-1
Twelfth Corps	4	3	-1
Provost Guard	3	0	-3
Engineer Brigade	1	0	-1

Infantry Augmentations

The news was not all bad in May and June. Hooker did succeed in obtaining replacements for some of the regiments he was losing. Five infantry brigades with twenty-one regiments plus one additional unattached regiment were transferred to the army in June. Two of these were veteran brigades from the Pennsylvania Reserve Division then serving in the defenses of Washington. These brigades had a long history of association with the army and constituted a welcome addition to the Fifth Corps where they constituted the new Third Division as related above.²³

Two other additions were green brigades that had never seen combat. One of these was another Washington defense outfit—a large Vermont brigade commanded by Brig. Gen. George Stannard. The brigade's five Vermont regiments were nine-months troops due to muster out in mid-July. However, until they did so, they would constitute the Third Brigade/Third Division/First Corps. Seeing their new blue uniforms, the veterans in the First Corps dubbed them the "White Collar Brigade."²⁴

The other green brigade was a newly formed one consisting of three large Maryland Regiments under the command of Brig. Gen. Henry Lockwood. Two of the regiments were brigaded just days before they began their march to join the army in the field whereas the third did not even make it to Gettysburg until the morning of July 3. Although the brigade was ostensibly assigned to the Twelfth Corps' First Division, it was considered an "independent

²³ Gottfried, *Brigades of Gettysburg*, 269–81.

²⁴ Gottfried, *Brigades of Gettysburg*, 97–107.

Table 3.

<i>Campaign</i>	<i>Union Commander</i>	<i>Prior Command Duration</i>	<i>Confederate Commander</i>	<i>Prior Command Duration</i>
First Manassas	McDowell	2 months	Johnston	1 day
Peninsula	McClellan	9 months	Johnston	9 months
Seven Days	McClellan	11 months	Lee	1 month
Second Manassas	Pope	2 months	Lee	3 months
Antietam	McClellan	14 months	Lee	4 months
Fredericksburg	Burnside	1 month	Lee	7 months
Chancellorsville	Hooker	3 months	Lee	11 months
Gettysburg	Meade	3 days	Lee	13 months

Note: The officers indicated in this Table are Maj. Gens. Irvin McDowell, George B. McClellan, John Pope, Ambrose E. Burnside, Joseph Hooker, and George G. Meade and Confederate Gens. Joseph E. Johnston and Robert E. Lee. McDowell's Army in essence became the Army of the Potomac. Technically, John Pope commanded the Army of Virginia. Pope is included here because much of the Army of the Potomac fought or operated under his command during the Second Manassas Campaign, and because the Army of Virginia was subsequently was incorporated into the Army of the Potomac. *Source:* Dyer, *Compendium*, I, 271–72, 349; Freeman, *Lee's Lieutenants*, I, 262–63.

brigade.” Otherwise, Lockwood could have claimed command of the division based on seniority.²⁵

The final augmenting brigade marched under a shadow. The four regiments constituting the brigade now commanded by Col. George Willard had been captured at Harpers Ferry in September 1862 only a month after they had first taken the field. Recently exchanged, the brigade was assigned to the Third Division/Second Corps as its Third Brigade in late June. Their new Second Corps comrades referred to them as the “Harpers Ferry Cowards.”²⁶

Finally, one regiment, the 150th New York, was transferred from the Middle Department to the army where it was assigned to the Second Brigade/First Division/Twelfth Corps. In all, twenty-two infantry regiments containing 10,415 officers and men were added to the army in June.²⁷ These regiments only partially offset the net loss in Hooker's infantry strength and the addition of so many green and unproven units could prove a liability under certain circumstances.

All seven infantry corps lost regiments due to the expiration of terms of service. However, not all corps received regiments in return and none of those received as many as were lost. Within the seven infantry corps, the distribution of newly as-

signed regiments was uneven. Table 2 summarizes the net loss or gain for each corps.²⁸

Unit Shrinkage

Hooker also faced another problem unrelated to organization, but affecting it nonetheless—that of the shrinkage of veteran infantry regiments. Neither North nor South possessed national-level personnel replacement systems during the Civil War. The Confederate states adopted a regimental replacement system that worked relatively well until it collapsed during the final year of the war by which time the available manpower pool had been exhausted. Three northern states—Illinois, Vermont, and Wisconsin—also developed state replacement systems that kept their veteran regiments at effective fighting strength.²⁹ The other Federal states generally allowed the normal course of attrition to proceed, although individual regiments did detail personnel for recruitment duty. These states filled their national manpower quotas by raising new regiments as opposed to feeding in replacements to rebuild existing ones. Cpt. John W. De Forrest of the

²⁵ Gottfried, *Brigades of Gettysburg*, 359–64.

²⁶ Gottfried, *Brigades of Gettysburg*, 175–84.

²⁷ Compiled from OR, 27.1:155–68, Busey and Martin, *Strengths and Losses*, and Dyer, *Compendium*, II.

²⁸ Compiled from OR, 25.1:156–70, OR, 27.1:155–68, Dyer *Compendium*, II, and Busey and Martin, *Strengths and Losses*.

²⁹ Romana Danysh, Historian, Force Structure and Unit History Branch, Office of Military History, Ft. McNair, Washington DC. Telephone interview by the author, April 30, 2003; John K. Mahon and Romana Danysh, *Army Lineage Series, Infantry Part I: Regular Army*. Online edition. Washington, DC: Office of the Chief of Military History, United States Army, 1972, 23–28. <http://www.army.mil/cmh-pg/books/Lineage/in/infantry.htm>; Various Authors, “Chapter 9: The American Civil War, 1861,” *American Military History: Army Historical Series*, Online edition. Washington, DC: Office of the Chief of Military History, United States Army, 1988, <http://www.army.mil/cmh-pg/books/AMH/AMH-09.htm>.

Maj. Gen. George Gordon Meade. National Archives and Records Administration.

12th Connecticut Infantry described the shrinkage phenomenon:

The truth is (although you must not publish it) that the division has run down terribly in numbers. There is a constant drain on troops in the field, much heavier than a civilian would suppose. Something like one fifth of the men who enlist are not tough enough or brave enough to be soldiers. A regiment reaches its station a thousand strong; but in six months it can only muster six or seven hundred men for marching and fighting duty; the rest have vanished in various ways. Some have died of hardship, or disease, or nostalgia; as many more have been discharged for physical disability; others are absent sick, or have got furloughs by shamming sickness; others are on special duty as bakers, hospital nurses, wagoners, quartermasters' drudges &c; a few are working out sentences of court

martial. Thus your division of fifteen thousand men has dropped to ten thousand or perhaps eight thousand effectives. The companies have each lost one if not two of their original three officers Meantime the government is raising new organizations, instead of filling up the old ones; and to make matters as bad as possible it is putting its green regiments into the hands of green officers.³⁰

What Captain De Forrest fails to mention was the simple truth that battle casualties also contributed significantly to the shrinkage of veteran infantry regiments.

Leadership Turnover

Another long-standing problem besetting the army was that of senior- and mid-level officer turnover. In May-June 1863, officer casualties, reassignments, and resignations left Hooker with a number of command vacancies to be filled at corps, division, and brigade echelons. Officer turnover was nothing new in the army, and it was in a measure unavoidable, but it came at a cost.

Leadership turnover disrupted the army's organization and denied it the continuity and stability that builds trust between the men in the ranks and the officers who command them. Leaders must "grow" into positions of increased authority and responsibility, learning both from their successes and their mistakes as they mature as combat commanders. Considering that no Virginia theater commander on either side had commanded a unit larger than a regiment prior to the outbreak of war in 1861, the learning curve for leaders during the first two years of the war was significant. Leaving commanders in place long enough for them to learn their duties and responsibilities at each successively higher command echelon was essential for building competence, gaining experience, and establishing a degree of trust and confidence between them and the officers and men under their command. In this regard, the Army of the Potomac suffered at every command echelon above regiment by comparison with its Confederate counterparts.

The Army of the Potomac and its predecessor formations had had a succession of top

³⁰ John W. De Forrest, *A Volunteer's Adventures: A Union Captain's Record of the Civil War* (Baton Rouge, LA: Louisiana State University Press, 1996), 35-36.

commanders—Maj. Gens. Irvin McDowell, George McClellan, John Pope, McClellan again, Ambrose Burnside, and Joseph Hooker, who unbeknownst, was soon to be replaced by George Meade. Most of these men served in only one campaign before being replaced by someone else. During the same period, the principal Confederate army in Virginia was commanded by Gens. Joseph E. Johnston and Robert E. Lee, the latter of whom by June 1863, had been in place for more than a year and had five major campaigns under his belt (See Table 3).³¹

Corps commanders (the pool from which army commanders were drawn) generally did not have prior responsibilities that enabled them to see the larger problems of the army as a whole. Some, like Hooker, had definite ideas concerning changes that needed to be implemented to improve the efficiency and effectiveness of the army, and implemented them upon assuming command.³² Others lacked the time or inclination to make wholesale changes to the army's structure or were not sufficiently familiar with existing problems to know what needed to be changed.

Prior to assuming command of the army, former corps commanders had become understandably familiar with their own corps. They knew the personalities and capabilities of the subordinate units, formations, and officers within that corps, but not necessarily those of the other corps. Upon assuming command of the army, they found that their key subordinates had all been selected by their predecessors and they were forced to make the best of the situation as they found it. It took time to recognize incompetent subordinate commanders, and once they had been identified, there might be insufficient time to weed them out before the next campaign began or the commander himself was replaced. As a result, incompetent subordinates often outlasted their superiors and were inherited along with the rest of the army by his successors.

The command turnover problem at corps echelon was equally tumultuous as that at army command. A succession of twenty-three officers had led the seven Federal corps into battle since their creation—more if temporary and battlefield casualty replacements are included. In contrast, the Army of Northern Virginia had had only four corps commanders in its entire history and three of them were still with the army during the Gettysburg Campaign.³³

By the time Gettysburg was fought, only four of the eight Federal corps commanders had five months or more of corps leadership experience, whereas the other four had less than three months each.³⁴ The bottom line is that half had some seasoning and half did not. Of perhaps greater significance is the fact that none of the officers who had commanded corps at Antietam in September 1862 were still with the army in any capacity at Gettysburg nine months later. Only two of the December 1862 Fredericksburg corps commanders (Reynolds and Slocum) remained in that position six months later.

The high levels of corps and army command turnover undoubtedly hampered the effectiveness and efficiency of the Army of the Potomac. Typically, commanders were relieved for failure. The relief of a commander often highlighted the lack of a solid performance by his command and therefore could hardly have been conducive to good morale, unit pride, or cohesion for the soldiers of that command.

Finally, the now familiar pattern of rampant command turnover was repeated at division and brigade echelons. On average, the Army of the Potomac and predecessor formations had entered each new campaign over the preceding year with only 52 percent of its division commanders and 50 percent of its brigade commanders experienced at that level of command. In contrast, the Army of

31 Dyer, *Compendium*, I, 271–272, 349; Douglas S. Freeman *Lee's Lieutenants: A Study in Command* (New York: Charles Scribner's Sons, 1943), I, 262–63.

32 During his five-month tenure as commander of the army, Hooker organized the Cavalry Corps, completely reorganized the artillery arm, organized the first professional intelligence analysis organization in American history—the Bureau of Military Information—made several improvements in the army's logistical structure, and instituted a system that checked rampant desertion and absenteeism. He also instituted a system of corps badges to identify the different corps and divisions within the army. Hooker served as commander of the Army of the Potomac from January 26 to June 28, 1863. Dyer, *Compendium*, I, 272.

33 Compiled from OR, 2:314–15, 469–70; OR, 11.1:279–84; OR, 11.2:483–89; OR, 11.3:479–84, 531–33; OR, 12.2:546–51; OR, 12.3:308–13, 581–88; OR, 19.1:169–80, 803–10; OR, 21:538–45; OR, 25.1:156–70, 789–94; OR, 27.1:155–68; OR, 27.2:283–91; OR, 27.3:794–806; *Battles and Leaders* II, 200, 218–19, 300–01, 313–15, 495–96.

34 John Reynolds was the senior corps commander at Gettysburg with nine months of corps command experience, followed by Henry Slocum (8 months), Daniel Sickles (5 months), John Sedgwick (5 months), Oliver Howard, (2.5 months), Winfield Hancock (1.5 months), Alfred Pleasonton (1.5 months), and George Sykes (3 days). Warner, *Generals in Blue*, 204–05, 237–39, 373–74, 396–97, 430–31, 446–47, 451–53, 492–93; Larry Tagg, *The Generals of Gettysburg: The Leaders of America's Greatest Battle* (Campbell, CA: Savas Publishing Company), 1998, 9–12, 33–35, 61–64, 81–83, 103–05, 121–24, 143–46, 165–67.

Northern Virginia entered combat on average with experienced commanders leading 63 percent of its divisions and 70 percent of its brigades.³⁵ These figures include both infantry and cavalry formations. Hooker could do nothing about this and it remained a problem for the duration of his five-month tenure as army commander.

The lack of prior command experience in leading a unit into battle did not necessarily mean that a particular officer was more likely to fail at his new level of responsibility, nor did previous leadership experience at a particular command echelon guarantee success in subsequent engagements. However, regardless of how much raw talent a newly appointed officer may have had, that talent had not yet been tempered or honed by actual leadership experience. Continuity of command provided time for lessons to be absorbed and experience in previous combat generally made leaders more effective. A wag might suggest that by the Battle of Gettysburg, the army was used to being led into battle by inexperienced officers, which might be true, but it is hardly conducive to an expectation of success in battle.

Also related to the problems of commander turnover and the amount of command experience was the permanent or temporary nature of officer command tenure and the ability of qualified officers to earn promotion to higher levels of responsibility. Battle casualties made officer vacancies unavoidable. An efficient system for promoting proven officers to replace those commanders permanently lost to the army is desirable for ensuring that mid-level formations are commanded by competent, capable officers. The passive method of permitting officer casualties to be replaced by their senior ranking subordinate did not always ensure that the most capable and deserving officer would get the job.

At the most senior levels (army and corps) the Army of the Potomac had officers of appropriate

rank in all positions. Union corps were authorized command by major generals, as no higher rank existed in the Federal service at that time, and all eight corps were commanded by major generals. Divisions were, in theory, to be commanded by major generals. However, officer casualties, absences due to wounds or illness, slow approval of promotions by Congress, and a reluctance on the part of the Federal War Department to create too many major generals meant that most divisions went into combat under the command of brigadiers. At Gettysburg, only four of the army's twenty-two infantry and cavalry divisions were commanded by major generals.³⁶ The remaining eighteen divisions were commanded by brigadiers.

Similarly, infantry brigades should have been commanded by a brigadier general. However, the same factors that prevented the creation of adequate numbers of major generals in the Federal service also pertained to brigadiers. Only about half (twenty-five of fifty-one) of the army's infantry brigades were commanded by brigadier generals at Gettysburg. The remaining twenty-six brigades were commanded by the brigade's senior colonel.³⁷ The cavalry arm fared even worse with only three of eight brigades being commanded by brigadiers and the other five being commanded by colonels.

Of course a colonel, elevated to temporary brigade command, deprived a regiment of its accustomed leader, causing a cascade effect through the various subordinate echelons of the command as other officers stepped up to fill the vacancies thus created, sometime creating new vacancies within their own former commands as they did so. Partially as a result of this, of the 237 infantry regiments at the beginning of the Battle of Gettysburg for which there is reliable data, 130 were commanded by colonels, seventy-five by lieutenant colonels, eighteen by majors, and fourteen by captains.³⁸ Similarly, in the cavalry, ten regiments were commanded by colonels, ten by lieutenant colo-

³⁵ Campaigns considered include the Seven Days, Second Manassas, Antietam, Fredericksburg, Chancellorsville, and Gettysburg. Union data compiled from OR, 2:314-15, 469-70; OR, 11.1:279-84; OR, 11.2:483-89; OR, 11.3:479-84; OR, 11.3:531-33; OR, 12.2:546-51; OR, 12.3:308-13, 581-88; OR, 19.1:169-80, 803-10; OR, 19.1:21, 48-61, 538-45; OR, 25.1:156-70, 789-94; OR, 27.1:155-68; OR, 27.2:283-91; OR, 27.3:794-806; *Battles and Leaders* II, 200, 218-19, 300-01, 313-15, 495-96. Confederate data compiled from OR, 2:314-15, 469-70; OR, 11.1:279-84; OR, 11.2:483-89; OR, 11.3:479-84; OR, 11.3:531-33; OR, 12.2:546-51; OR, 12.3:308-13, 581-88; OR, 19.1:169-80, 803-10; OR, 19.1:21, 48-61, 538-45; OR, 25.1:156-70, 789-94; OR, 27.1:155-68; OR, 27.2:283-91; OR, 27.3:794-806; *Battles and Leaders* II, 200, 218-19, 300-01, 313-15, 495-96.

³⁶ These were Maj. Gens. Abner Doubleday (Third/First), David Birney (First/Third), John Newton (Third/Sixth), and Carl Schurz (Third/Eleventh). The Army comprised nineteen infantry and three cavalry divisions. OR, 27.1:156, 159, 163, 164.

³⁷ Compiled from OR, 27.1:155-68.

³⁸ Compiled from OR, 27.1:155-68; OR, 27.2:283-91; Noah Trudeau, *Gettysburg: A Testing of Courage* (New York: Harper-Collins, 2002), 566-79, 583-93; and Edmund J. Raus, Jr., *A Generation on the March: The Union Army at Gettysburg* (Gettysburg, PA: Thomas Publications, 1996).

nels, eight by majors, and five by captains in the thirty-three regiments for which there is data.³⁹

Infantry Summary

Overall, the infantry's forced May–June organizational changes resulted in the net loss to the army of one division and seven brigades. Twelve of the fifty-eight Chancellorsville infantry brigades had ceased to exist altogether.⁴⁰ Of the forty-six remaining brigades, thirty-one lost one or more regiments due to expiring terms of service, fifteen brigades lost regiments by transfer to other brigades, and twenty-three brigades gained regiments by reassignment from other brigades. Five infantry brigades were assigned from outside the army. As a result, only fourteen of the fifty-one Gettysburg infantry brigades (27 percent) remained compositionally unchanged from their Chancellorsville organization. The command picture was equally bleak. By the time the army reached the field at Gettysburg, two of seven infantry corps commanders, eight of nineteen infantry division commanders, and twenty-two of fifty-one brigade commanders had been newly elevated to their present command positions, and the army commander himself had been replaced only three days before the battle.

Operational Consequences

But what was the impact of these changes? Hooker chose not to address the problem with the obsolescent infantry corps structure. As a result, there were simply too many corps to be effectively commanded by one man in battle, and individually the corps were unevenly sized and had insufficient combat power to operate alone. If anything, this problem had been exacerbated by the further shrinkage of corps strengths resulting from the Chancellorsville casualties and the loss of so many regiments. As a result, Hooker reinstituted the interim “wing” solution on June 13 as the army moved north toward Maryland. The First, Third, Fifth, Eleventh, and Cavalry Corps constituted the army's left wing under First Corps commander Maj. Gen. John Reynolds. The right wing comprised the Second, Sixth, and Twelfth Corps and the Artillery Reserve, all

under Twelfth Corps commander Maj. Gen. Henry Slocum.⁴¹

Shortly after Meade assumed command of the army on June 28, he affirmed Hooker's interim command solution by dividing the army into three wings and assigning a unique mission to each. Reynolds continued to command the First, Third, and Eleventh Corps, to which was attached the First Cavalry Division.⁴² He was to screen the army's left, or advance, wing as it moved north into Pennsylvania. The right wing was commanded by Slocum and now consisted of the Twelfth and Fifth Corps, plus the Second Cavalry Division, while the rear, commanded by Maj. Gen. John Sedgwick, consisted of the Second and Sixth Corps, the Artillery Reserve, the army's trains, and the Third Cavalry Division.⁴³

The wing structure made sense for the approach march toward Gettysburg, but it largely dissolved once battle was joined on July 1. The result was an often confusing intermixing of forces from the various corps. Except for the Twelfth Corps' action on Culp's Hill on July 3, all Federal actions on the second and third days of battle involved odd mixes of units from two or more corps. Although the haphazard expedients adopted were good enough to prevail under the circumstances, the army fought inefficiently, suffering inordinately high casualties in what should have been relatively easy defensive fighting aided by favorable terrain, superior numbers, and a significant artillery advantage.

For example, the difficulties in cooperating, coordinating, and maneuvering the army's myriad small and weak formations in the absence of a firm guiding hand became painfully obvious on the afternoon of July 2 during the Confederate attack on the Federal left. Two Confederate divisions and three-fifths of another (eleven Confederate brigades) initially attacked the attenuated and poorly posted Third Corps and later the adjacent Second Corps. One after another, Meade ordered units to Sickles's support where they were committed piecemeal and too often were defeated in detail. Units engaged or dispatched to the left included more than half the army—all or part of six of the seven infantry corps, including thirty-two of the army's fifty-one brigades drawn from twelve of the army's

³⁹ Compiled from *OR*, 27.1:166–67.

⁴⁰ These were Patrick's/Provost, 3/1/First, 4/1/First, 3/2/First, 3/3/Second, 1/3/Third, 2/3/Third, 3/3/Third, 1/3/Fifth, 2/3/Fifth, Lt. Div/Sixth, and 2/1/Twelfth.

⁴¹ *OR*, 27.1:38.

⁴² *OR*, 27.3:414–15.

⁴³ *OR*, 27.3:284–85, 458–59; Coddington, *Study in Command*, 122–23.

nineteen infantry divisions, although not all arrived in time to see action.⁴⁴ With no one in overall command of the left, corps, divisions, and sometimes brigades were dismembered to bolster the defenses at various critical points. Some officers found themselves little more than supernumeraries as one subordinate unit after another was stripped away from their command and committed piecemeal to support someone else. Of the twelve Federal divisions committed, whole or in

part, only Caldwell's First Division/Second Corps managed to maneuver and attack as a coherent unit.

In the end, the Federal left held, although the Third and Fifth Corps had been savaged and other units had suffered heavily. In the absence of an overall commander on the left, Meade permitted his strength to be squandered in stopping the attack, suffering more casualties than he inflicted despite significant advantages in numbers, artillery, and terrain.

Whether the piecemeal commitment of forces on July 2 was due to Meade's inexperience as army commander or to the unwieldy nature of the numerous infantry formations committed, is open to debate. It was likely a combination of both. There was no overall commander on that part of the field

Brig. Gen. Henry Hunt. National Archives and Records Administration.

to coordinate the commitment of reserves. Corps commanders Sickles and Sykes cooperated and others contributed, but none of them exercised overall command—especially after Sickles was wounded. As a result, the striking power of the reinforcing units was frittered away as individual formations counterattacked, held in place, or fell back as the local situation seemed to them to warrant. A smashing counterattack by the entire Fifth Corps operating as a single coordinated entity appears nev-

er to have been considered. Coordinated efforts by Third, Fifth, and Second Corps formations to attack, hold, or withdraw were not attempted. No one other than George Meade had the requisite authority to order such action and he chose to be elsewhere for the duration.

Other reorganizational implications are harder to quantify. How, for example, does one compute the impact of the turmoil created by unfamiliar units being brigaded together immediately prior to a major engagement? How can the diminution in effectiveness resulting from the loss of so many highly cohesive veteran regiments from established brigades and their replacement by green troops, or no troops at all, be measured? How can one quantify the result of having so many green commanders going into combat for the first time in unfamiliar positions of authority? Finally, how much different would the outcome of the battle have been if the army had been called upon to execute difficult offensive operations with so many

⁴⁴ Units committed or dispatched to the Federal left on July 2 included the entire Third Corps (two divisions with six brigades), the entire Fifth Corps (three divisions with eight brigades), eight of ten brigades from all three divisions in the Second Corps, one division from the Sixth Corps (three brigades), five of the six brigades from the two divisions of the Twelfth Corps, and two brigades from the First Corps. Compiled from Gottfried, *Brigades of Gettysburg*, 37, 110, 186, 234, 287, 350.

inexperienced leaders and troops instead of what should have been the comparatively uncomplicated defensive fighting that actually occurred? One can only surmise.

The Army's Long Arm: The Field Artillery

Hooker's forced consolidation of his infantry and its greatly reduced numbers meant that the army would have to use all of its other available resources to maximum effect to offset at least some of the combat power it had lost. In particular, Hooker was acutely aware of how badly he had been served by his artillery arm at Chancellorsville. For perhaps the first time in its history, the Army of the Potomac had been repeatedly out-gunned on key sectors of the battlefield as massed Confederate artillery pounded his soldiers and provided effective fire support to the attacking gray infantrymen.

Hooker had no one but himself to blame. His pre-Chancellorsville weakening and decentralization of the command of his the artillery, the dispersal of that authority among infantry division commanders, and the reduction of his Chief-of-Artillery, Brig. Gen. Henry Hunt, to a largely administrative role left the army's long arm without a firm guiding hand. With his batteries parceled out among the infantry, it had proven difficult to mass guns at key points on the battlefield. The piecemeal commitment of one or two batteries at a time left both them and the infantry they supported vulnerable to the massed fires of the well-handled Confederate artillery battalions. Now, in the wake of the disaster, Hooker sought to remedy the problem. He restored Hunt's authority and set about a comprehensive reorganization of his artillery arm.

Hunt had been advocating since before Chancellorsville for the creation of a higher artillery command echelon that would group several batteries together. Such formations would simplify command, control, administration, and logistics and make it easier to mass guns on the battlefield under unified command. Hooker had rebuffed Hunt's initial efforts but was more pliable in the wake of defeat. The resulting comprehensive reorganization of the army's artillery arm was spelled out in Special Order 129 on May 12, 1863. All batteries were removed from other commands and grouped into all-artillery "brigades" under the command of artil-

lery officers.⁴⁵ One artillery brigade was created and assigned to each of the seven infantry corps, five artillery brigades constituted the army's enlarged Artillery Reserve, and two horse artillery brigades were assigned to the Cavalry Corps—fourteen newly organized artillery brigades in all.⁴⁶ The enlargement of the Artillery Reserve from fifty-six to 114 guns placed nearly a third of the army's artillery under Hunt's control for use irrespective of corps boundaries.⁴⁷

The newly organized artillery brigades had from four to eight subordinate batteries containing from twenty to forty-eight guns.⁴⁸ Hunt ensured that at least one U.S. regular battery was assigned to each corps artillery brigade to serve as an example for the volunteer batteries to emulate. In contrast, all of the regular batteries in the Artillery Reserve were grouped together in the First Regular Brigade with the various state batteries being assigned to the four volunteer brigades.

Under the stipulations of Special Order 129, artillery ammunition trains were removed from corps control and placed at the disposal of the various corps chiefs-of-artillery. This ensured that ammunition resupply of the correct caliber would be readily available to each battery.⁴⁹ Further, army regulations authorized that 250 rounds per gun be carried in the trains, but Hunt went a step farther. Unknown

⁴⁵ The use of the term "brigade" here is actually a misnomer based contemporary usage. The newly created artillery formations would properly be called battalions based on their organizational composition of more than one, but fewer than the twelve batteries that constituted a regiment. Battalions formed an intermediate command echelon between battery (company) and regiment but lacked a fixed organizational structure. Comparable Confederate artillery formations were more aptly termed "battalions." Hunt apparently chose the term, "brigade" in the hopes of securing both the promotion of the artillery officers assigned to command them and the appointment of staffs to assist in their administration. L. Van Loan Naisawald, *Grape and Canister: The Story of the Field Artillery of the Army of the Potomac, 1861-1865* (Washington, DC: Zenger Publishing Company, 1960), 329-30; OR, 25.2:471-72.

⁴⁶ Field artillery was of two types: "foot" artillery and "horse" artillery. These were not as different as the names might imply. The foot artillery constituted the bulk of the army's artillery and provided support to the infantry. The guns were pulled by horses while the gunners generally walked alongside. Horse artillery was present only in the cavalry and differed from the foot artillery in that all of the gunners rode horses to provide them with mobility comparable to that of the cavalry units they supported. Union horse artillery batteries were equipped solely with 3-inch Ordnance Rifles during the Gettysburg Campaign. Busey and Martin, *Strengths and Losses*, 114-15.

⁴⁷ The reorganized Artillery Reserve contained 29 batteries with a total of 114 guns, or 30.1 percent of the army's total artillery. The Artillery Reserve at Chancellorsville had contained only 11 batteries with 56 guns. Busey and Martin, *Strengths and Losses*, 16; OR, 25.1:157; Bigelow, *Chancellorsville*, 504.

⁴⁸ One Union artillery brigade had eight batteries, seven brigades had five batteries, and six brigades had four batteries, respectively. One Union artillery brigade had 48 guns, one had 30 guns, four had 28 guns, two had 26 guns, one had 24 guns, two had 22 guns, and three had 20 guns, respectively. Compiled from Busey and Martin, *Strengths and Losses*, 16-111.

⁴⁹ OR, 25.2:471-72.

to the army commander, he created a bootleg Artillery Reserve train with an additional twenty rounds per gun.⁵⁰

In an attempt to minimize organizational turmoil as a result of the comprehensive restructuring of the artillery arm, the batteries previously assigned within each corps were assigned to the artillery brigade now assigned to it wherever possible. However, changes were inevitable. Seven batteries were lost to the army, including four batteries transferred to the defenses of Washington, two transferred to Harpers Ferry and one that mustered out of service. In addition, ten batteries with the army at Chancellorsville were consolidated into five remaining ones due to losses.

Several accessions partially offset the loss of these twelve batteries. Three batteries and one section of two guns were transferred to the army from the Washington defenses. In addition, the thirteen guns captured by the Confederates at Chancellorsville were replaced. In all, eight batteries either gained or lost guns.⁵¹ In sum, the artillery arm was reduced from seventy-seven batteries containing 413 guns to sixty-seven batteries with 372 guns.

At battery echelon, Hunt had previously requested in December 1862 that six-gun batteries be increased to 150 men, but the request was not acted upon.⁵² On May 11, Hunt received new authorities and issued instructions to increase the size of his four-gun batteries to 110 men plus officers, and of six-gun batteries to 150 men plus officers. Further, attempts were made to standardize all batteries at six guns. However, Hunt had made only modest progress toward realizing these goals before the army again took the field.⁵³ As of mid-June, all of Hunt's batteries had either six or four guns with the majority (fifty-two of sixty-seven batteries) having six.⁵⁴

One area in which the Union artillery arm had a marked advantage over its Confederate counterpart was in the standardization of cannon types within batteries. With only one exception, all Union batteries contained only a single type of cannon.⁵⁵ A

single type ensured that each gun would have identical capabilities to every other one in the battery. This permitted an entire battery to go into action wherever and whenever the tactical situation favored the capabilities of the type of gun with which that battery was equipped. Standardization of ordnance reduced confusion in combat by simplifying ammunition transport and re-supply requirements to a single caliber of round. A single gun type also greatly simplified crew training, ordnance maintenance, procurement of spare parts and replacement equipment, and other logistical considerations.

Because of the North's ability to manufacture its own ordnance, the army was equipped with thoroughly modern artillery. Three gun types predominated; the twelve-pounder Model 1857 "Napoleon" Smoothbore, the three-inch Ordnance Rifle, and the ten-pounder Parrott Rifle. These three gun types accounted for all but twenty of the army's 372 guns.⁵⁶ Eighteen of the remaining twenty guns were larger caliber field guns, and only two were obsolescent types (twelve-pound howitzers). All twenty of these non-standard guns were grouped in a single artillery brigade within the Artillery Reserve.⁵⁷ The other thirteen artillery brigades each contained only the three preferred modern gun types, which accounted for 97 percent of the guns in the army.

Artillery Command Issues

Hunt lobbied hard for the promotion of deserving officers to command the new artillery brigades, but in this, he was rebuffed. In consequence, artillery brigade commanders rarely possessed the rank or experience commensurate with their new levels of responsibility. The various brigades were commanded by the senior artillery officer present within their respective corps, frequently a captain, who also retained the responsibility of commanding his own battery. Neither were brigade commanders permitted staffs to assist them in the performance of their enlarged duties.⁵⁸ The lack of promotions for artillery brigade commanders highlighted a long-standing problem within the artillery service.

⁵⁰ Naisawald, *Grape and Canister*, 331.

⁵¹ Batteries that lost guns usually did so as a result of combat and other losses in personnel, leaving too few gunners to serve the remaining pieces.

⁵² Naisawald, *Grape and Canister*, 269.

⁵³ David Schultz and Richard Rollins, "A Combined and Concentrated Fire: Deployment of the Federal Artillery at Gettysburg, July 3, 1863," *North & South* 2, No. 3 (March 1999): 39–59.

⁵⁴ Compiled from Busey and Martin, *Strengths and Losses*, 16–117.

⁵⁵ The single exception was the 2nd Connecticut Light Artillery Battery, which

was equipped with four James Rifles and two twelve-pounder Howitzers.

Busey and Martin, *Strengths and Losses*, 115.

⁵⁶ Busey and Martin, *Strengths and Losses*, 16–117.

⁵⁷ This was the Second Volunteer Brigade/Artillery Reserve. Busey and Martin, *Strengths and Losses*, 115.

⁵⁸ Naisawald, *Grape and Canister*, 330.

Although all arms were subject to promotion limitations, the problem was worst in the artillery. After 1861, the states had been forbidden by the War Department to recruit additional artillery regiments.⁵⁹ The constituent batteries of both those volunteer regiments already accepted into Federal service and the five U.S. regular artillery regiments were distributed among the various infantry brigades, divisions, and corps.⁶⁰ The regular regiments had their normal complements of field grade officers but these men were distributed throughout the various Federal armies.

For line officers (captains and lieutenants), the problem was rooted in the tactical battlefield employment of artillery batteries. A battery—the artillery equivalent of an infantry or cavalry company—was commanded by a captain or, in his absence, by the senior lieutenant. Prior to the creation of the artillery brigades, batteries were normally employed singly or in small temporary groupings. Promotions beyond the grade of captain were considered unnecessary because no higher echelon artillery formations existed prior to May 1863. The promotion issue involved more than merely satisfying the personal ambitions of officers—although that was also a factor. It also entailed ensuring continuity of competent leadership in critical command positions and having officers with rank appropriate to their duties and responsibilities in positions of authority.

Promotion issues had become a problem early in the war and a number of regular artillery officers chose to resign from the army to accept volunteer commissions as colonels—John Gibbon, James B. Ricketts, and Charles D. Griffin among others.⁶¹ That it remained a serious problem in the summer of 1863 is reflected by the number of former artillery battery commanders commanding volunteer infantry brigade- or higher-echelon formations at Gettysburg. These included infantry division commanders Abner Doubleday, John Gibbon, Albion Howe, and Rom-

eyn Ayres and infantry brigade commanders Norman Hall, Stephen Weed, and Adelbert Ames.⁶²

Army artillery officers were hopeful that the army-wide reorganization of the artillery arm would create promotion opportunities for deserving officers. In this, they were disappointed. No officers received promotions.⁶³ The harsh reality was that with fourteen artillery brigades consisting of sixty-seven batteries, 372 guns, and 8,116 men—nearly the personnel equivalent of an infantry corps—the entire Army of the Potomac artillery arm contained only two brigadier generals, two colonels, and two majors.⁶⁴ The fourteen newly created artillery “brigades” were commanded, respectively, by two colonels, two majors, nine captains, and one lieutenant.⁶⁵

Another problem was that the lines of command authority were not as clear in the artillery as in the other service arms. The principal question remained—did artillery batteries come under the command of the infantry officers whose commands they were supporting and in whose areas of responsibility they were deployed, or were they to answer only to duly appointed officers in the artillery chain-of-command? With most artillery brigade commanders ranking as captains, they could easily be regarded as subject to the orders of the higher ranking infantry or cavalry officers being supported. Artillery battery and brigade commanders were repeatedly placed in the position of having to choose between obeying the direct orders of higher ranking officers from the other arms or those of

⁵⁹ The War Department did not favor paying the extra salary expenses of the artillery field grade officers (majors, lieutenant-colonels, and colonels) that volunteer regimental organizations would have required. Further, there was a strong desire not to have untrained volunteer field grade officers commanding professionally trained regular line officers or units. Besides, went the argument, an artillery regiment was too large and unwieldy an organization to be of use on the battlefield. Philip M. Cole, *Civil War Artillery at Gettysburg* (Cambridge, MA: Da Capo, 2002), 19–20; Naisawald, *Grape and Canister*, 31–34.

⁶⁰ Naisawald, *Grape and Canister*, 31–33.

⁶¹ Federal law at that time prohibited officers from holding both regular and volunteer commissions simultaneously. Naisawald, *Grape and Canister*, 32–33.

⁶² Other Army of the Potomac general officer examples not present at Gettysburg included William Graham, George W. Getty and William Hays. Naisawald, *Grape and Canister*, 332; Tagg, *Generals of Gettysburg*, 25–26, 44–45, 51–52, 91–92, 96, 111, 129.

⁶³ According to Federal law, a brigade was to have no fewer than four regiments nor less than 40 companies. This principle was violated frequently in the infantry and cavalry. However, the concept prevailed and prevented formal artillery officer promotions until the law was finally amended. Naisawald, *Grape and Canister*, 31–32, 329–33.

⁶⁴ These were Brig. Gens. Henry Hunt (Chief-of-Artillery) and Robert O. Tyler (Commanding the Artillery Reserve), Cols. Charles S. Wainwright (First Corps Chief-of-Artillery) and Charles H. Tompkins (Sixth Corps Chief-of-Artillery), and Majs. Thomas Osborn (Eleventh Corps Chief-of-Artillery) and Freeman McGilvery (Commanding the First Volunteer Brigade of the Artillery Reserve). Freeman McGilvery is frequently listed with the rank of lieutenant colonel at Gettysburg, however, he was not promoted to that grade until after the battle. Part of the confusion stems from the fact that McGilvery had already been promoted when he filed, and signed, his official report of the battle. Busey and Martin, *Strengths and Losses*, 16–17; OR, 27:1:155–68.

⁶⁵ These were Cols. Charles S. Wainwright and Charles H. Tompkins, Mjrs. Thomas Osborn and Freeman McGilvery, Capts. John Hazard, George Randolph, Augustus Martin, James Robertson, John Tidball, Dunbar Ransom, Elijah Taft, James Huntington, and Robert Fitzhugh, and Lt. Edward Muhlenberg. OR, 27:1:155–68.

their own artillery superiors. This made misunderstanding, miscommunication, and confusion on the battlefield all but inevitable.⁶⁶

Friction between artillerists and officers of the other arms resulted and the new command structure only partially addressed the issue. For example, at the height of the artillery bombardment that preceded the Pickett-Pettigrew-Trimble assault on July 3, Federal Second Corps commander Maj. Gen. Winfield S. Hancock wanted to keep the artillery in his sector firing to sustain the morale of his soldiers whereas Chief-of-Artillery Hunt wanted to halt the Federal artillery counter-battery fires to preserve sufficient ammunition to repulse the infantry assault certain to follow. In the end, Hancock succeeded in keeping his Second Corps guns firing with the result that those batteries ran short of ammunition and could not respond effectively to the infantry assault until the Confederates had closed to canister range—300 yards. Hunt succeeded in silencing the guns of the Artillery Reserve batteries on the Second Corps front as well as those of the other corps' artillery brigades. As a result, those batteries could maintain fire from start to finish of the Confederate infantry assault. Hunt maintained afterwards that the Confederate attack would have been stopped well short of the Federal line had the Second Corps batteries ceased their fire when he had wanted them to.⁶⁷ Hancock, although seriously wounded during the assault, was so livid that he immediately complained from his hospital bed to the army commander of Hunt's insubordination and that of the Artillery Reserve battery commanders in his sector who had ceased their fires at Hunt's command.

Artillery Tactical Employment

Artillery was a combat arm that normally provided long-range fires in support of the infantry and cavalry. To the extent that it did so, its fires were considered effective. On rare occasions, the artillery could be called upon to defend a key position without infantry or cavalry support, but the tactical doctrine of the day forbade this except in extreme circumstances.

⁶⁶ For a fuller discussion of this dilemma and related issues, see Naisawald, *Grape and Canister*, 438–42.

⁶⁷ Naisawald, *Grape and Canister*, 439; Coddington, *Study in Command*, 496–99; Trudeau, *Gettysburg: A Testing of Courage* (New York: Harper-Collins, 2002), 472, 486.

Civil War artillery was much more lethal when fighting on the defensive. In general, ranges were shorter when fighting defensively, increasing the chances of a hit. But the primary factor contributing to the artillery's short-range lethality was the canister round, which was used at ranges of roughly 300–350 yards or less. Canister—basically a tin can filled with iron balls—had no fuse, which made it more reliable than exploding shells or spherical case rounds. Upon firing, the tin can disintegrated, essentially turning each cannon into a giant shotgun and giving it the equivalent firepower of an infantry company volley. With all four or six of a battery's cannons firing at once, canister could be devastating at close range. Gettysburg played to the strengths of the Federal long arm in that virtually all of the fighting was defensive in nature.

Artillery doctrine held that the guns were most effective when they were massed and their fires were directed against a single target. An 1864 field artillery manual noted: “The *effect* of field artillery is generally in proportion to the *concentration of its fire* . . . It has, therefore, for its object, not to strike down a few isolated men, and here and there to dismount a gun, but by a *combined and concentrated fire*, destroy an enemy's cover; break up its squares and columns; to open his ranks; to arrest his attacks, and to support those which may be directed against him.” (Emphasis in the original.)⁶⁸

The comprehensive reorganization of the artillery provided a streamlined command structure that was designed to facilitate the massing of guns at key points on the battlefield. This advantage was evident at Gettysburg. Despite the reforms, old practices died hard and division commanders wanted “their batteries” with them on the march and in battle. The new brigade structure did not preclude this. Thus as the First Division/First Corps marched onto the field at Gettysburg on July 1, it was accompanied by the 2nd Maine Light Artillery. The division relieved Brig. Gen. John Buford's First Cavalry Division, which had arrived the day before accompanied by Battery A, 2nd U.S. Artillery (serving as horse artillery). Brig. Gen. Francis Barlow's First

⁶⁸ William H. French, William F. Barry, and Henry J. Hunt. *Instruction for Field Artillery*, New York: 1860; revised edition, 1864), quoted in Rollins, Richard. “Lee's Artillery Prepares for Pickett's Charge.” *North & South*, 2, no. 7, (September 1999): 46.

Division/Eleventh Corps arrived with Battery G, Fourth U.S. Artillery, and so on.

The difference at Gettysburg was that for the first time, wherever the guns of a particular corps were, they remained under the overall control of the corps' artillery chief. Throughout the fighting on July 1, First Corps Chief-of-Artillery, Col. Charles S. Wainwright exercised close supervision of the five batteries of his brigade, ensuring close cooperation with the infantry they were supporting. Both acting corps commander Maj. Gen. Abner Doubleday and his three division commanders acted through Wainwright to request and coordinate artillery support.⁶⁹ On at least one occasion that afternoon, the new corps artillery brigade system showed flexibility, power, and the ability to mass firepower at the critical point. Wainwright grouped "eighteen pieces on a frontage of not over two hundred yards" near the Lutheran Theological Seminary for a last ditch defense of the Seminary Ridge line.⁷⁰ The massed fire of these guns savaged Brig. Gen. Alfred Scales's North Carolina Brigade as it attacked the ridge.⁷¹

Wainwright's performance was one of the few bright spots on July 1. The problem was that the two Confederate corps on the field contained considerably more artillery than their Union counterparts (eight Confederate battalions against two Federal brigades). In contrast to the rapid and effective massing of the Confederate batteries, the Federal order-of-march kept the army's powerful Artillery Reserve out of the action with the result that the First and Eleventh Corps were forced to fight outnumbered and without adequate artillery support, and they were largely destroyed as a result.

During the positional engagements of July 2 and 3, the situation was reversed as Meade massed his entire army along a 3.5 mile front—effectively integrating his infantry and artillery assets, including the guns of the Artillery Reserve. The compact defensive frontage of the army meant that an average of 120 Federal cannons could be employed for every mile of front defended if need be. As a result, attacking Confederate infantry encountered the ubiquitous Federal gunners at every turn. Time and

again, the embattled Federal infantry received effective artillery fire support. Artillery Reserve batteries also plugged holes in the Federal line and held until being overrun or relieved by arriving infantry units on July 2. These stopgaps contributed significantly to the Confederate failure to break the Federal left. Massed artillery fire was the primary cause of the repulse of the Pickett-Pettigrew-Trimble assault on July 3. As long as the army was concentrated on a narrow front and operating on the defensive, its massed guns could be readily integrated with the infantry and wielded effectively against assaulting Confederate infantry.

At army echelon, Hunt seamlessly integrated the activities of the corps artillery brigades with those of the Artillery Reserve. Reserve batteries were fed in to strengthen the line wherever needed, to fight delaying actions until infantry support could arrive, to replace fought-out batteries, and to mass fires at key points irrespective of corps boundaries. The artillery arm functioned so well at Gettysburg that it is often credited with preventing Union defeat.⁷² As one historian has noted, "one would be hardpressed to name an organization that did more to save the Army of the Potomac and help win the battle."⁷³

At Gettysburg, the new organizational structure enabled the artillery to assist the embattled infantry whose depleted numbers forced Federal commanders to rely more heavily on their guns. Pvt. William Edgerton of the 107th New York Infantry ably articulated the Union reliance on its superior artillery when he noted in an August 1863 letter "There is one thing that our government does that suits me to a dot. That is, we fight mostly with artillery. The rebbs [*sic*] fight mostly with infentry [*sic*]."⁷⁴

III. The Eyes and Ears of the Army: The Cavalry

In contrast to the infantry and artillery branches, the cavalry arm got off to a slow start at the beginning of the war. Initial assumptions concerning cavalry included: (1) the war would be of short duration and would be over before cavalry units could be trained, equipped, and fielded, (2) the broken and wooded nature of the areas likely to be fought over would be unsuitable for large-scale cavalry

69 Colonel Wainwright's official Gettysburg report is found in *OR*, 27.1:354–59.

70 Allan Nevins, ed. *A Diary of Battle: The Personal Journals of Colonel Charles S. Wainwright, 1861–1865*, (1922; reprint, Gettysburg, PA: Stan Clark Military Books, 1962), 235.

71 Trudeau, *Testing of Courage*, 236; Coddington, *Study in Command*, 294.

72 For example, Naisawald, *Grape and Canister*, 444–45.

73 Cole, *Artillery at Gettysburg*, 275–76.

74 William W. Edgerton, 107th New York Infantry, in a letter to his mother dated August 1863, quoted in Naisawald, *Grape and Canister*, 536.

operations, (3) the cost of raising, equipping, and maintaining cavalry units would be prohibitive, (4) modern weaponry had rendered cavalry largely obsolete, and (5) the six extant regular cavalry regiments would be sufficient to meet the army's needs.⁷⁵ Based on these mistaken assumptions, the War Department was initially reluctant to accept more than a few volunteer cavalry regiments.⁷⁶ Further limiting the speed of mobilization of mounted units was the fact that few extant militia companies in the North were trained and equipped as cavalry. Finally, the pool of riders and trained riding horses was not as extensive in the industrialized areas of the North as in the largely agrarian South.⁷⁷ One estimate suggests that as few as 10 to 20 percent of northern cavalry recruits were farmers, even among units recruited in rural areas. Such men would have been more accustomed to caring for animals and would be more likely to know how to ride than their city-dwelling comrades.⁷⁸

The need to train men, horses, and both together, added to the wide variety of missions carried out by the cavalry, made the training process both longer and more complicated than the drill required to

prepare an infantryman for combat. This problem was exacerbated if the cavalryman did not already know how to ride when he enlisted. The cavalry officer learning curve was also steeper than in the infantry due to the dispersed and often decentralized nature of many of the cavalry's missions which placed greater responsibility on cavalry officers.

By the fall of 1861, the need for additional cavalry units had become apparent and the Federal government became more willing to authorize the recruitment of additional regiments of mounted troops.⁷⁹ The first all-cavalry brigade appeared in the Army of the Potomac in early 1862, and by late July of that year, most of the army's cavalry had been grouped into an all-cavalry division, although a number of cavalry regiments and detached companies remained in the infantry corps as headquarters escorts, couriers, and provosts.⁸⁰ By the time of the Antietam Campaign in September 1862, the army's cavalry division had grown to five brigades containing twelve cavalry regiments and four batteries of horse artillery.⁸¹

In February 1863, Hooker had gone one step farther by creating a cavalry corps, which consisted of three divisions with seven brigades containing twenty-six regiments.⁸² Brig. Gen. George Stoneman, who had been commanding the Third Corps, was appointed to command the newly formed Cavalry Corps, and he was subsequently promoted to major general on March 16.⁸³ The establishment of the Cavalry Corps largely eliminated the wasteful practice of Hooker's predecessors of dispersing cavalry units throughout the army.

In late April, most of the cavalry corps was sent off on a raid into the Confederate rear where it accomplished little during the Chancellorsville Campaign. In the wake of the battle, Hooker placed much of the blame for his defeat on Stoneman and

75 The U. S. Army in 1861 had five mounted regiments, including two of dragoons, one of mounted riflemen, and two of cavalry. These regiments had ten companies each. A new regiment, the 3rd U. S. Cavalry was authorized in 1861 and was to have 12 companies. In July 1861, the five extant regiments were increased from ten to twelve companies and in August of that year, all six mounted regiments were re-designated in order of seniority as follows: The 1st Dragoons became the 1st U. S. Cavalry; the 2nd Dragoons became the 2nd U. S. Cavalry; the Regiment of Mounted Riflemen became the 3rd U. S. Cavalry; the old 1st Cavalry became the 4th U. S. Cavalry; the old 2nd Cavalry became the 5th U. S. Cavalry, and; the newly created 3rd U. S. Cavalry became the 6th U. S. Cavalry. Mary L. Stubbs and Stanley R. Conner, *Army Lineage Series, Armor-Cavalry Part I: Regular Army and Army Reserve*, online edition (Washington, DC: Office of the Chief of Military History, United States Army, 1969, <http://www.army.mil/cmh-pg/books/Lineage/arcav/arcav.htm>).

76 One estimate placed the cost of maintaining a volunteer cavalry regiment at upwards of \$500,000 per year in 1861 dollars. A horse cost at least 110 dollars in 1861 (more as the war progressed), or ten times the monthly pay of an infantryman and five times the cost of his rifle musket. Edward G. Longacre, *Lee's Cavalrymen: A History of the Mounted Forces of the Army of Northern Virginia* (Mechanicsburg, PA: Stackpole Books, 2002), 9; Griffith, *Battle Tactics*, 181.

77 Cultural factors also came into play. Although more horses existed in the northern states, there appear to have been fewer riders, and therefore, fewer trained riding horses. Wealthy men in the North were more likely to travel by carriage than on horseback, whereas it was expected in the South that a gentleman would be accomplished in the equestrian arts. Further, because Confederate cavalrymen provided their own mounts, the number of blooded horses finding their way into the Southern cavalry service was substantially higher than in the North where cavalry mounts were purchased, trained, and provided by the government. Edward G. Longacre, *Lee's Cavalrymen: A History of the Mounted Forces of the Army of Northern Virginia* (Mechanicsburg, PA: Stackpole Books), 2002, 10, 30–31, 44–48; Edward G. Longacre, *Lincoln's Cavalrymen: A History of the Mounted Forces of the Army of the Potomac* (Mechanicsburg, PA: Stackpole Books, 2000), 32–39, 45–52.

78 Mark Adkin, *The Gettysburg Companion: The Complete guide to America's Most Famous Battle* (Mechanicsburg, PA, Stackpole Books, 2008), 188.

79 The various Northern states eventually raised a total of 272 cavalry regiments, forty-five battalions, and seventy-eight independent cavalry companies during the war. Stubbs and Conner, *Armor-Cavalry*, 14–15.

80 During the Civil War, even experienced cavalrymen tended to call their lowest echelon units "companies" when filing their official reports. For this reason, these units will be referred to herein as companies and not as troops. The term "troop" to denote a cavalry company-echelon unit was first officially used on July 17, 1862. However, the new term was slow to take hold and did not become common in the cavalry arm until after its use was directed by the War Department in 1883. From this latter unit designation derives the term "trooper" to denote a cavalry enlisted soldier. Stubbs and Conner, *Armor-Cavalry*, 20.

81 OR, 19.1:169–80.

82 The Cavalry Corps of the Army of the Potomac was established on February 12, 1863. Dyer, *Compendium*, I, 322–23.

83 Warner, *Generals in Blue*, 481.

the absent cavalry. Shortly after Stoneman left the army for medical treatment in May, Hooker took the opportunity to replace him as head of the cavalry corps with the self-promoting Brig. Gen. Alfred Pleasonton, who was subsequently promoted to major general on June 22.⁸⁴

On June 11, Hooker and Pleasonton completely reorganized the Cavalry arm in the field after the Gettysburg Campaign had already begun.⁸⁵ The Corps' three divisions containing seven cavalry brigades were consolidated into two divisions with five brigades but without the loss or addition of any regiments. In late June, an additional cavalry division with two brigades, eight regiments, and a total of 4,584 officers and men, was transferred from the Defenses of Washington to the army where it was assigned as the new Third Cavalry Division.⁸⁶ One additional cavalry regiment was transferred from Washington but it was assigned to the army's provost. Finally, one regiment, the 1st Rhode Island, was mauled so badly at the Battle of Middleburg on June 19 that it was detached to recruit its ranks and was lost to the army for the remainder of the campaign, reducing the number of regiments in the cavalry corps to thirty-five.

Pleasonton lost no time in placing his favorites in charge of the reorganized corps' subordinate formations. When the dust had settled, the corps commander, two of the three division commanders, and six of the eight brigade commanders were newly appointed with no prior experience at that level. The latter included three staff captains who were jumped four grades to brigadier general just two days before Gettysburg.⁸⁷

In sum, all three cavalry divisions and six of the eight brigades endured compositional changes, losing or gaining one or more subordinate regiments in June. One entire division of two brigades was composed of newly assigned regiments and was commanded by inexperienced division and brigade commanders who were appointed on June 29. The two horse artillery brigades were both newly created and one of those was commanded by an officer

who had previously served only in the foot artillery. Both were commanded by captains.

Cavalry Roles, Missions, and Tactical Employment

Cavalry units fulfilled a number of essential roles, which justified the time and expense of raising, training, and maintaining them. Foremost among these were reconnaissance and counter-reconnaissance. The cavalry constituted the "eyes and ears" of the army. It was the cavalry's job to reconnoiter ahead and on the flanks of the main army to collect information concerning the number and disposition of enemy forces, the condition of the roads or other avenues of approach, and the physical characteristics of the local terrain. It was also the cavalry's mission to establish a counter-reconnaissance security screen to protect the army from the prying eyes of the enemy cavalry. Other assigned duties included guarding the army's supply trains, guarding prisoners, conducting raids into the enemy's rear to disrupt his communications, conducting the pursuit of a defeated enemy, screening the flanks of the army, securing and patrolling lines-of-communication, including roads, railroads, bridges, and fords, providing couriers for army and corps headquarters, escorting generals and VIPs, and performing provost guard duties. Most of these practices suggest a view that saw cavalrymen as little more than infantrymen on horses and not as members of a combat arm.

Once the main battle was joined, cavalry units patrolled and screened the flanks of the army, but rarely were used in a shock role to break enemy infantry formations via a cavalry charge.⁸⁸ After a victorious battle, the cavalry pursued the defeated foe, capturing prisoners, wagons, and artillery, harrying the retreating infantry, raced ahead to cut off the enemy's retreat, and tried to prevent the defeated enemy from reforming. In defeat, the cavalry covered the army's retreat, fended off the pursuit of enemy cavalry, protected the army's trains, and secured vital chokepoints along the line-of-march.

Hooker's new Federal cavalry corps structure was well suited for the types of dispersed roles and missions for which the cavalry was typically employed during tactical operations and was therefore

⁸⁴ Dyer, *Compendium*, I, 323; Warner, *Generals in Blue*, 373.

⁸⁵ *OR*, 27:3.64.

⁸⁶ Busey and Martin, *Strengths and Losses*, 103.

⁸⁷ These were Elon Farnsworth, Wesley Merritt, and George A. Custer, promoted on June 29 1863. Warner, *Generals in Blue*, 148–49, 321–22, 108–10.

⁸⁸ Cavalry charges against formed infantry were rare in the Civil War and were generally unsuccessful. Griffith, *Battle Tactics*, 42–43.

vastly superior to what had gone before. Primary and secondary missions could now be assigned to division and brigade commanders, who in turn, had sufficient combat power at their disposal to carry them out. The comprehensive reorganizations of February and June 1863 raised the cavalry's status, transforming it from the "handmaiden of the infantry" to a combat arm in its own right.

During the early phases of the Gettysburg Campaign, the Federal cavalry was still finding its way. It surprised, but was then rebuffed by, the Confederate cavalry at Brandy Station on June 9, suffering nearly twice as many casualties as it inflicted and failing to detect the Confederate infantry marching toward the Potomac.⁸⁹ The cavalry also made unsuccessful efforts to penetrate the Confederate cavalry counter-reconnaissance screen at Aldie on June 17 and Upperville on June 21. In those engagements, the outnumbered Confederate cavalry was forced back but did not break. Again, the blue horsemen generally fought aggressively and well, capturing a cannon and approximately 250 prisoners at Upperville.⁹⁰ With each engagement, they gained valuable experience and confidence.

During the approach march to Gettysburg, the new cavalry structure enabled it to fulfill the widely dispersed missions assigned to it. The Second Division screened the army's right flank and the Third Division screened the army's rear where it succeeded in deflecting the Confederate cavalry at Hanover on June 30. Meanwhile, Brig. Gen. John Buford's First Division was assigned to the army's left. Buford screened the army's march from the prying eyes of the enemy—a job made much easier by the absence of the gray cavalry—and collected intelligence on Confederate dispositions. So well was this mission carried out that on the evening of June 30, Buford sent a note to left wing commander Reynolds and army commander Meade outlining the location of every major unit in the Army of Northern Virginia. When compared to the actual locations of those commands, it is clear that Buford's information was timely, accurate, and relevant. In consequence, Reynolds approached the field at Gettysburg knowing what enemy force lay before him,

⁸⁹ Self-promoting and prone to exaggeration, Pleasanton afterwards claimed to have detected Lee's infantry but his reports at the time make it clear that he did not. Coddington, *Study in Command*, 60–66.

⁹⁰ Coddington, *Study in Command*, 76–80.

while Lee, in the absence of his own cavalry, stumbled blindly into the battle, unaware of the strength and disposition of his foe—no small contribution to the ensuing victory.

Buford's division fought a delaying action on July 1, successful trading space for time and permitting the Federal First and Eleventh Corps to reach the field in time to secure the vital high ground south of Gettysburg. The Second Division under Brig. Gen. David Gregg, aided by Custer's Brigade of the Third Division, successfully turned back a Confederate cavalry flanking maneuver east of Gettysburg on July 3. All three divisions participated in the weak pursuit mounted by the Federals following the battle, and succeeded in capturing some wagons and prisoners but failed to seriously impede Lee's retreat. In the absence of an aggressive pursuit by Meade's infantry, there was really little more that the cavalry acting alone could reasonably be expected to accomplish.

Conventional wisdom holds that the Federal cavalry was finally beginning to come into its own in 1863. The belief of the day held that it took two years to train a competent cavalryman and his mount.⁹¹ By the spring of 1863, two years of war had passed and the army's investment in its cavalry arm was finally beginning to pay off. The Federal cavalry generally held its own in some fifty cavalry engagements during the campaign. The flexibility of the reorganized cavalry corps structure contributed materially to this success. Perhaps the greatest testimony of the superiority of the cavalry corps structure is the fact that the mounted arm of the Army of Northern Virginia imitated it by reorganizing as a corps with subordinate divisions later that year.

Conclusion

In summary, May-June 1863 was a tumultuous time for the Army of the Potomac. Organizational and leadership changes wracked the army, spreading turmoil throughout its ranks. But Hooker's reforms boosted the efficiency of the army's artillery and cavalry arms at a time when their services were desperately needed to offset his diminished infantry strength. The weakened infantry arm would eventually recover its lost strength. New units and leaders would gain experience and the March 1864

⁹¹ Adkin, *Gettysburg Companion*, 188.

reorganization of the army's infantry corps would put them on a par with their southern counterparts, paving the way for eventual victory. Hooker, through the organizational reforms he initiated, deserves more credit than he generally receives. Although George Meade and not Hooker would be the recipient of the advantages gained, the reforms were Hooker's brainchildren and it was the army he forged that fought and won at Gettysburg.

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