

our Christmas holiday that year—in fox-holes.

(During World War II, receiving mail boosted individual morale more than anything else—even more than a good hot meal. And to encourage that incoming mail, soldiers wrote home even under the most difficult conditions. Recognizing that very basic fact of life, the regiment's leaders rapidly arranged for this Christmas card to be printed and distributed to all the members of the regiment.)

What with the cold and the snow and all the rest, it was a tough period for the soldiers of the 16th Infantry. But, as always, the men did a magnificent job and, in their sector, stopped the Germans in their tracks.

That's the end of the Christmas 1944 war story, except that it all turned out well eventually. The Allies won the war, and 1st Division soldiers stayed to guard the peace in Germany until the division came home in 1955.

In my 1965 message to the 16th Infantry, I added to this story the following:

*Heartfelt Seasons Greetings and the best of everything to you new members of the 16th Infantry who are waging today's war.*

*We know that you are doing a tremendous job over there, and that the 16th Infantry and the Big Red One will win the battles that will end the war in Vietnam—as they did in World Wars I and II. The alumni of those wars, I can assure you, take great pride in your every combat action. Our thoughts and prayers are with you.*

*God bless you.*

How was the story received in Vietnam? Lieutenant Colonel Bill Lober, who was commanding the 1st Battalion, 16th Infantry, wrote me on 13 December 1965 and said, in part:

*I can't begin to explain the deep impression your narrative of Christmas '44 had on us. Your letter was on my*

*desk when we got in on the 9th after twelve days of jungle campaigning...to say the least, your letter and story perfectly proved the close tie between present members of an organization and those who filled the ranks in the past, a fact that we treasure highly.*

Although the 16th Infantry and the 1st Division are not involved in a shooting war in 1994, they are, nevertheless, serving as they have always served. And thousands of other soldiers are still standing guard around the world. So, to the soldiers of the 16th Infantry and to all those other soldiers as well, I send you, in addition to my 1944 Christmas story, "Best Wishes for a Merrier Christmas and a Happier New Year."

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**Major General Albert H. Smith, Jr.**, began his Army career in 1940 and served for more than 33 years. Much of this service was in the 1st Infantry Division, including eight campaigns in World War II and three in Vietnam, where he was assistant and acting division commander.

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# Battle of Beaver Dam Creek

## FM 100-5 Lessons Learned

**CAPTAIN SCOTT T. GLASS**

The Battle of Mechanicsville exemplifies a successful defense by a numerically inferior force. Looking at lessons learned from this battle in the context of Field Manual (FM) 100-5, *Operations*, will help today's leaders apply these lessons of history to the battles of the future.

In early 1862, Union forces under General George B. McClellan moved on the Confederate capital of Richmond. When Confederate commander General

Joseph E. Johnston was wounded on 31 May at Seven Pines, command passed to General Robert E. Lee.

Lee inherited a hostile force of 115,000 on Richmond's doorstep. To improve the odds, he ordered General Thomas J. "Stonewall" Jackson's army in the Shenandoah Valley to join him at Richmond. That unit and others brought Lee's strength to almost 80,000.

Union General Fitz-John Porter's V Corps held the north bank of the Chick-

ahominy River with 30,000 men in three divisions. General McClellan would be able to support Porter from south of the river, depending on the bridges available. In addition to superiority in numbers, McClellan also enjoyed superiority in siege and field artillery, in both quality and quantity.

Lee deployed to block Union moves on Richmond until he could create favorable opportunities to attack. His short-term goal was to defeat all or part

of the Union army, and he decided to risk committing about 50,000 soldiers to offensive operations.

### The Terrain

The Chickahominy River and Beaver Dam Creek dominated the Mechanicsville battlefield. The Chickahominy rises north of Richmond and flows southeast to the James River. Fairly shallow and narrow, the creek itself did not present as serious a military obstacle as the wide swamps on both banks. Mechanicsville Bridge provided the only practical crossing in the immediate battle area. About one and one-half miles upstream, the Meadow Bridge supported the crossing of the Virginia Central Railroad.

Beaver Dam Creek runs south through the battle area, emptying into the Chickahominy. (The creek today averages chest deep, is about 20 feet wide, and has high, sharp banks.) Marshland 80 to 100 yards wide framed the creek with thick, tangled undergrowth. Although infantry could cross with little trouble, the cavalry and artillery required a bridge.

Both sides of Beaver Dam Creek featured militarily significant ridgelines. The eastern ridge, although slightly lower than the western one, afforded observation and fields of fire beyond Mechanicsville, and the force holding it had a significant advantage.

Two roads that figured in the battle provided crossings suitable for cavalry and artillery: Mechanicsville Turnpike became Old Church Road as it left the village and crossed Beaver Dam on a bridge one-half mile northeast of the village. Cold Harbor Road left Mechanicsville heading southeast and then ran south until it turned east to cross at Ellerson's Mill.

Broken woodlands lined both the east and west ridges but grew thicker on the east ridge. Small groves grew in marshy lowland by the creek near the Cold Harbor Road bridge. In each area, trees grew thick enough to disrupt troop formations.

Mechanicsville controlled four inter-sections, and troops moving east or

north from the Chickahominy needed the road junctions. Also, a handful of dwellings and trees in the village could screen troops from observers across Beaver Dam Creek. Ellerson's Mill sat near the Cold Harbor Road bridge, and water in the millrace flooded the land around the bridge approaches.

Weather conditions favored defensive operations. Good visibility improved observation, and the heat and high humidity would soon tire attacking troops.

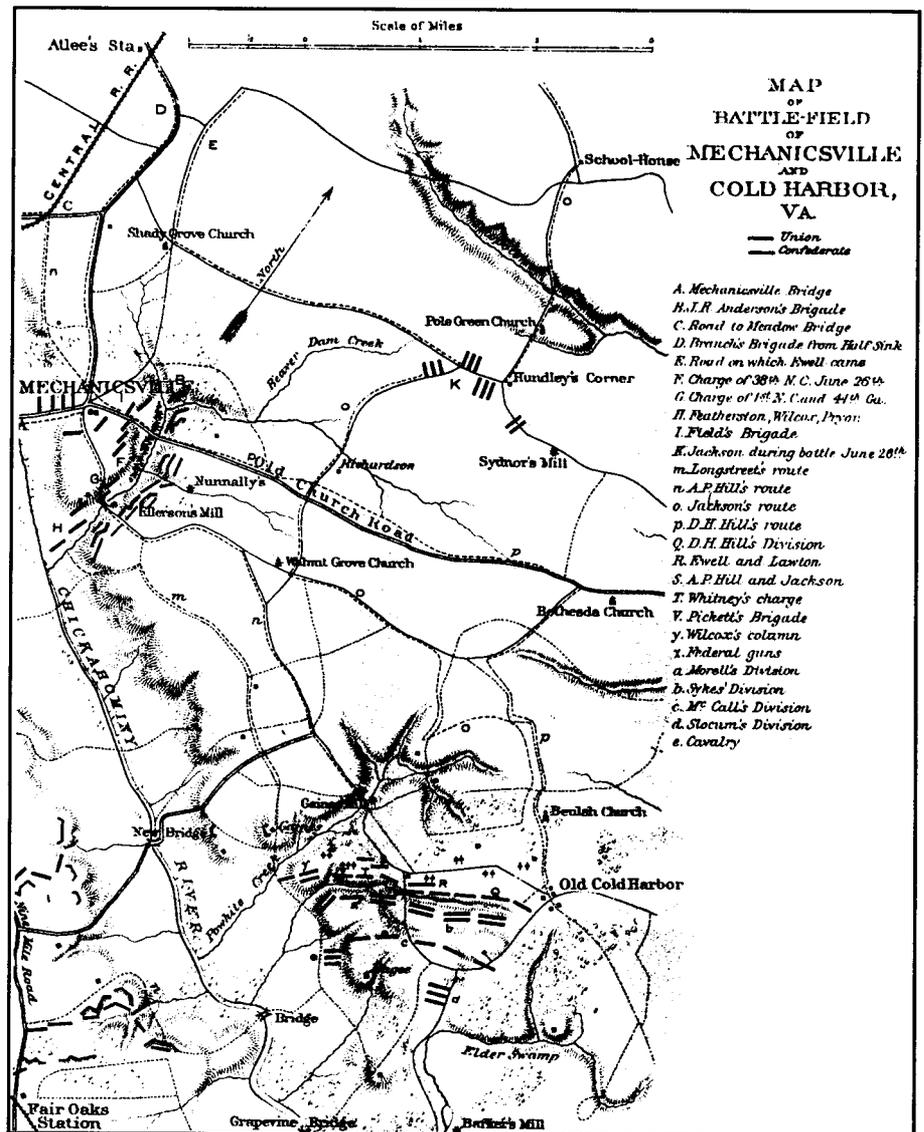
### The Attackers

General Order #75 stated Lee's intent. Jackson was to advance southeast along the Chickahominy's northern bank. As he passed their fronts, the

forces under Generals A.P. Hill, D.H. Hill, and James Longstreet would cross the river and advance on Jackson's right flank. Jackson's mission, as clearly defined in the order, was to turn a Union position on Beaver Dam Creek. The order expected light contact as units moved southeast but counted on Jackson to turn any Union positions on the north bank of the Chickahominy.

Confederate operations were aimed at defeating a part of McClellan's army before he could reinforce it from south of the river. At no time did Lee envision attacking Beaver Dam Creek frontally, nor did his plan address the contingency of a Union stand along it.

Lee allowed his generals to draft the plan's timeline, believing they could



best judge when preparations would be complete. Initially, 25 June was selected for the attack, but Lee delayed this ambitious timeline by one day and set H-Hour for 0300, Thursday, 26 June.

The attacking force included the combined forces of four Confederate maneuver units—one corps, and three divisions:

Jackson's corps (17,000) was to depart assembly areas north of Richmond early 26 June and move southeast. Lee expected Jackson's advance to become known and cause the Union troops to abandon any positions that overlooked Beaver Dam Creek.

A.P. Hill's division (14,000) would push across the Chickahominy at Meadow Bridge, connect with Jackson's right, and pursue any Union withdrawal from Beaver Dam Creek.

D.H. Hill's troops (10,000) would cross at Mechanicsville Bridge and support A.P. Hill's right. One attached artillery battalion provided D.H. Hill with three batteries.

Longstreet (9,000) would cross after D.H. Hill and complete the advancing line of divisions by filling the gap between Hill's right and the Chickahominy swamps.

**The Defense**

Porter assigned General George A. McCall's division (9,000) to defend along Beaver Dam Creek. The division had joined McClellan in mid-June with three brigades of Pennsylvania Reserves. These were reserves, however, in name only, having been in active service since 1861. McCall had three seasoned cannon batteries for direct support, and McClellan's artillery reserve had other batteries nearby for his use.

On 19 June, McCall received orders to move to Mechanicsville, and the leaders immediately recognized the eastern ridgeline as key terrain. The regimental commanders directed the preparation of rifle positions in depth on the front slopes, and troops worked around the clock to improve them. Well-sited cannon emplacements behind the infantry positions allowed interlocking fires on

bridge crossings, open areas, and roads.

Obstacles complemented the terrain in three belts, each of which could be observed and fired on: First, the Mechanicsville Bridge was demolished. Second, trees were felled on the western ridge, creating abatis. Third, trees were chopped down along the creek bank to clear fields of fire and make more abatis.

McCall defended with two brigades on the eastern ridgeline along a two-mile front. Each brigade commander held one regiment as a local reserve. One brigade and two batteries were in McCall's reserve behind the center. One regiment and battery in Mechanicsville provided force protection.

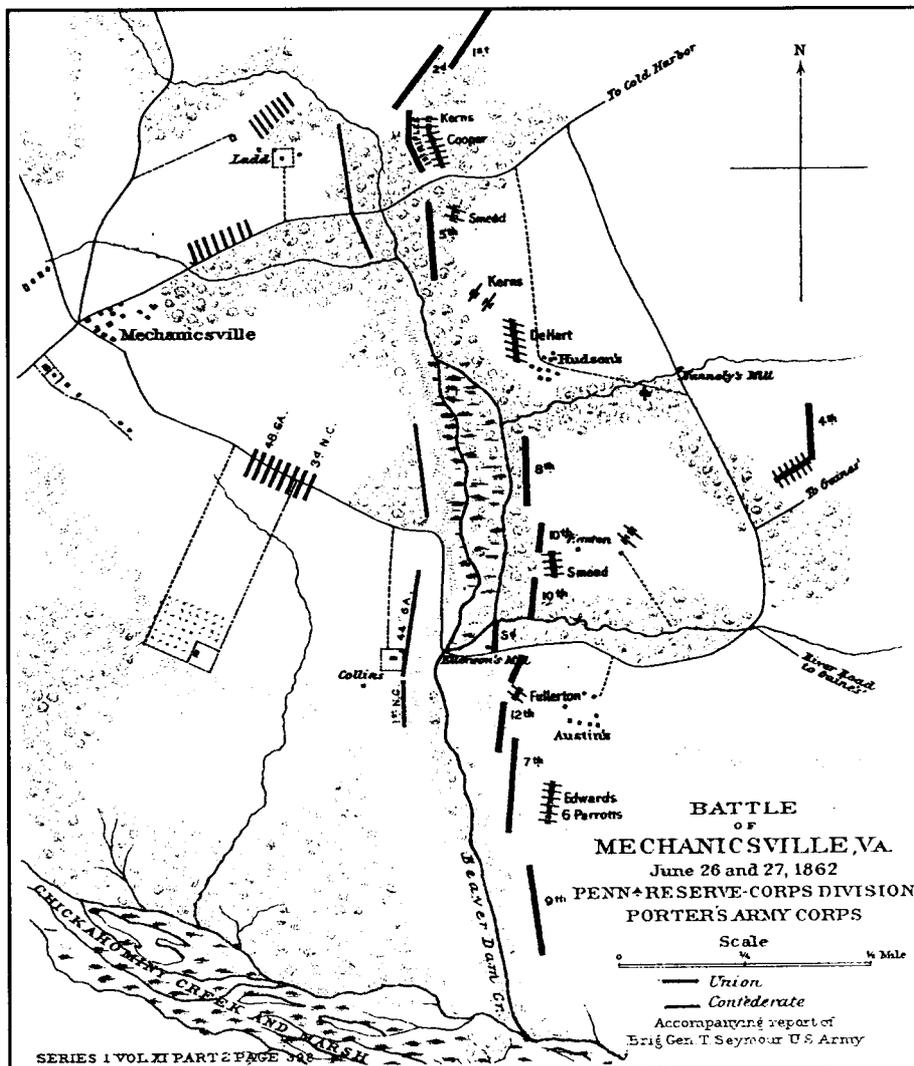
For early warning, McCall placed sharpshooters to watch the bridge crossings over the Chickahominy, while a

cavalry force guarded roads leading into Mechanicsville from the north. McCall would not be caught napping.

**Sequence of Events**

At 0100 on 26 June, Confederate units moved to assembly areas near Mechanicsville Bridge. Building up false cookfires before marching at night concealed the movement. H-Hour (0300) passed with no movement from Jackson. A.P. Hill expected Jackson to cross his front line at 0400 and had his soldiers awake and standing by. Jackson had planned to start moving around 0345, but he did not begin moving until 0800. Then Union cavalry delayed him with obstructed roads and bridges, while wrong turns in unfamiliar country cost him still more time.

At 1000 an impatient brigade com-



mander of A.P. Hill's, General L.O. Branch, crossed above Meadow Bridge. As his troops turned southeast toward Mechanicsville, they alerted Union pickets. By 1200 McCall knew specific details of Confederate moves and made adjustments. He sent more troops into Mechanicsville, moved a battery up to cover the Old Church Road crossing, and sent sharpshooters to support the cavalry that was harassing Branch. Jackson and his corps, now seven hours behind schedule, would not affect operations on Beaver Dam Creek that day.

A.P. Hill crossed at 1500, reasoning that Jackson would arrive by the time he deployed. Hill's men came under heavy fire from artillery around the village and the eastern ridgeline. Union forces in Mechanicsville moved back to the eastern ridge. Possibly mistaking this movement for the desired retreat, Hill deployed to attack and pursue.

As Hill's lead brigade cleared the village, Union guns above the creek engaged the Confederates, exacting a severe toll. McCall reinforced his upper line with a cannon battery. Concentrated rifle and cannon fire blunted Hill's first attack and overwhelmed his supporting artillery. The Union battery fires then neutralized each deploying Confederate battery, whose return fire was either short or inaccurate.

At 1600 A.P. Hill attacked again. He ordered one brigade toward woods north of Old Church Road to flank the Union guns and another brigade directly toward the creek. The two brigades used thick undergrowth to get their regiments close to the creek. The 35th Georgia crossed the creek after two bloody attempts, but Union infantry wounded the regiment's commander and sealed off the lodgement.

D.H. Hill could not immediately support A.P. Hill. Lee's order had attached engineer officers to divisions for "overcoming all difficulties to the progress of the troops." But no engineers or materials had been positioned near the damaged Mechanicsville Bridge. Units waited for repairs until a footway allowed General Roswell Ripley's



**This photo of Ellerson's Mill, taken three years after the battle, shows shell damage to the roof. (Photo courtesy Richmond National Battlefield Park.)**

brigade to cross just after 1600. A two-hour delay slowed D.H. Hill's artillery; one battery crossed, but the rest of his guns were too late to support operations.

McCall massed against A.P. Hill's second attack and used a regiment from the reserve to reinforce the line.

A.P. Hill kept attacking but not with the mission of crossing. He still expected Jackson's arrival to turn the position on Beaver Dam Creek. While he knew the disadvantages of storming the Union earthworks, he wanted to keep McCall occupied and prevent any shift to receive Jackson.

At 1700, A.P. Hill mounted a third separate attack with General W.D. Pender's brigade toward the Cold Harbor Road crossing. This attack did not coordinate with or support the other attacks. McCall countered by moving a regiment and battery to the threatened point.

Stalled Confederate assaults then allowed Union guns to concentrate on this third attack. Cannon and rifle fire mangled the Confederate formations so rapidly that none advanced within 100 yards of the creek. One company in the 38th North Carolina lost 27 of 32 men.

Around 1800 Pender thought he saw an opportunity to flank the Union left, but had no troops available and asked D.H. Hill for Ripley's brigade. Lee, now on the field, agreed, despite D.H.

Hill's objections. Also present was Confederate President Jefferson Davis, who—in a strange turn of events—confirmed Lee's instructions to D.H. Hill.

When Ripley issued his order, however, the mission changed. Instead of working around the Union left flank, he would attack a battery covering the Cold Harbor Road crossing, using two regiments, the 1st North Carolina and the 44th Georgia. The shocked commander of the latter unit, Colonel Smith, asked Ripley three times to repeat the orders.

Just after 1900, Ripley attacked directly into the teeth of McCall's defense. McCall saw the attack forming and deployed another regiment and battery at the threatened point. Abatis disrupted the tight formations; the 44th Georgia re-formed and continued under intense shelling that mortally wounded Colonel Smith. Union riflemen joined in as the advance came within 400 yards. The 44th Georgia color-bearer's eight gunshot wounds testified to the volume of fire.

This firepower smashed the attackers, and only unit fragments reached the creek abatis. Ripley found both regimental commanders mortally wounded and many company commanders shot down. He ordered the men to lie down and return fire. Darkness allowed the few who were uninjured to crawl back.

The attacks ended with nightfall around 2100. The defensive center of gravity—the eastern ridge, had not been seriously threatened. The attackers had lost more than 1,500 dead and wounded. The Union force, fighting from prepared positions, had lost about 390, little more than the 44th Georgia alone.

Union leaders prepared for continued operations under cover of darkness. Fresh companies rotated with tired ones. Infantrymen cleaned gunpowder-fouled rifles, and quartermasters brought up supplies of cartridges. Artillery batteries replenished their ammunition chests. The Union troops had accomplished all these vital tasks by 0100 on 27 June.

Meanwhile, Confederate preparations for 27 June met with difficulty. One battery could not resupply with shells until 1200; damaged field pieces were not repaired; and the evacuation of the wounded dragged on throughout the day.

Very late on 26 June, Union forces detected Jackson. His presence threatened Union supply lines and the Beaver Dam Creek position. Since holding this creek no longer offered a military advantage for the defenders, Porter ordered McCall to withdraw before dawn.

The first Union regiment moved at 0500, covered by artillery fire. By 0700 ambulances had completed the evacuation of the wounded. Confederate attempts to cross early on 27 June, while ultimately successful, did not disrupt the withdrawal.

### FM 100-5 Lessons Learned

Seen in the context of FM 100-5, the battle of Mechanicsville offers several lessons:

**Mass** (pages 2-4 and 9-1). Union forces repeatedly massed the effects of defensive fires to smash Confederate attacks. The placement of reserves allowed combat power to be massed quickly when needed. As Confederate artillery batteries arrived on the field, massed Union cannon fire rendered them ineffective.

**Unity of command** (page 2-5). With both Lee and Davis issuing orders, no

one commander controlled the battle. Although A.P. Hill may have held nominal control by commanding most of the committed troops, he did not direct Ripley's attack.

**Unity of effort** (page 2-5). Confederate leaders attacked with different objectives. Lee wanted to bypass Beaver Dam Creek. A.P. Hill wanted to hold the defenders in place. Pender's intent was to cross the creek. Ripley attacked a battery. Because of this confusion, attacks were made under conditions that were extremely unfavorable to the offense.

**Obstacles** (page 10-2). McCall's obstacles allowed Union forces to engage the Confederates at their greatest disadvantage. Destroying the Mechanicsville Bridge prevented surprise, disrupted Confederate operational tempo, and kept D.H. Hill's artillery off the battlefield. The abatis held Ripley in kill zones beside the creek where all weapons were concentrated against him.

**Flexibility** (page 10-2, 10-4). The Union employment of reserves at critical times either contained or defeated each attack. The reserve had no other specific mission, which allowed the reinforcement of threatened areas.

**Protecting the force** (page 9-1). The Union defense provided for force security. Surveillance units gave ample warning, delayed the attack, and allowed the timely reinforcement of threatened areas. Security force warnings enabled McCall to defend with a clear knowledge of the Confederate forces.

**Deception** (page 6-9). Confederate deception efforts were successful. Lee secretly repositioned 30,000 troops in assembly areas, and the simple ruse of building up campfires overnight worked at army level.

**Logistics** (page 12-11, 12-12). Lee had anticipated potential problems in General Order #75, but his logisticians executed it poorly as well. Class V resupply and medical recovery were delayed.

**Terrain** (page 10-2, 14-4). McCall exploited the terrain advantages, and the Confederates did not. Although Lee's army had Virginia soldiers who were

familiar with the battle area, no commander seemed to use this advantage. The Confederates had controlled the area until 19 June, yet D.H. Hill complained of having no accurate maps. As a result, no tactical commander knew the terrain.

**Time available** (page 10-3). The defenders constantly improved positions as the leaders learned the terrain. The one-day delay of the Confederate attack until 26 June proved costly, because it gave McCall more time to improve his defense. The attackers wasted precious time: Despite more than 12 hours in position near the Mechanicsville Bridge, D.H. Hill was needlessly delayed by bridge repairs.

When viewed in the context of FM 100-5, the area defense anchored on Beaver Dam Creek successfully held the Union Army's separated right flank. McCall's conduct of the defense built on strengths and concealed weaknesses. Although outnumbered three to one, he avoided the full effects of Confederate combat power. As a result, his force survived intact and fit for continued operations.

The Confederate offensive moves on 26 June failed, by FM 100-5 standards. The moves began with a five-to-one advantage and let it slip to three-to-one. Even then, they could not bring this combat power to bear at a critical point and time.

These lessons learned from mistakes more than 130 years ago at Mechanicsville are similar to those made on modern training battlefields. By exploiting the costly lessons of history, Army leaders can lay the groundwork for successful operations in the future.

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