The Confederate Deliberate Attack
5 P.M. July 1 to 8 P.M. July 2

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"On the 2d July…we attempted to dislodge the enemy..."
— General Robert E. Lee, July 4, 1863

With these words, General Robert E. Lee describes his intent for the operations following July 1. While hampered by inaccurate intelligence, Lee would devise a masterful plan on July 2 which would seek to mass most of his army against the decisive point: Cemetery Hill. Lee began his planning even before the attack culminated on July 1. "No, the enemy is there, and I am going to attack him there,"[1] he said to Lieutenant General James Longstreet at about 5 P.M. on July 1. Clearly he had decided to attack on July 2, rather than maneuver, should his July 1 attempt fail.

This article addresses Lee's command decision to conduct a deliberate attack on July 2, 1863. An analysis of his options, military factors in the decision, and previous educational background and experience, lays the foundation for how Lee developed and executed his plan. A critical assessment of this phase of battle will include how well Lee devised and executed his plan. It will find fault with some decisions of popular historical figures, but is not intended as personal criticism but critical analysis. It is intended to answer the question: Why? Why did Lee decide on a particular scheme of maneuver? Why did the Confederates deviate from the plan? And why did the plan fail?

It is said in the military, "Making decisions may be easy. Living with them is not." This article provides a study not just of each specific decision, but of how a series of seemingly well-considered decisions set in motion a series of events that in the end forced commanders into a corner, limiting their options and eliminating the possibility for optimal solutions. Lee's plan unraveled a thread at a time, until it was difficult to discern what the original plan was. The friction of the battlefield, a capable enemy, a terrain that offered first advantage then disadvantage, and the limits of man all contributed to both the "fog of war" and the fortunes of war.

This article approaches Lee's decision through the prism of relevant military factors, augmented by historical evidence. The factors are cumulative – applicable to the current phase of operation but also true "-isms" in military operations of this period. They are applicable to the experience of

the leaders, the capabilities of their soldiers and equipment, and their understanding of military thought at the time. These factors and considerations evolve over time, and it is unfair to critique historical decisions using more developed modern concepts. The professional soldier knows that little is written in stone and applicable in every condition. The professional soldier strives to know when to emphasize one principle over another in competing situations, and when to modify a principle to advantage. For example, in 1990 during Desert Shield and Desert Storm, President George H.W. Bush announced to the world that Iraq had to leave Kuwait by January 15, 1991. Some military experts may have said he violated the principle of surprise in making the announcement. Everyone knew what was to happen within hours of the deadline. But no outside observer realized that the United States had moved an entire army hundreds of miles into the desert to launch an attack on the extreme flank of the enemy. The U.S. achieved the desired level of surprise by changing the direction of the attack. The U.S. forced Saddam into two options: maneuver in the open desert against superior men and equipment or remain in defensive positions and die in place. The U.S. surrendered strategic surprise, but made up for it in operational surprise.

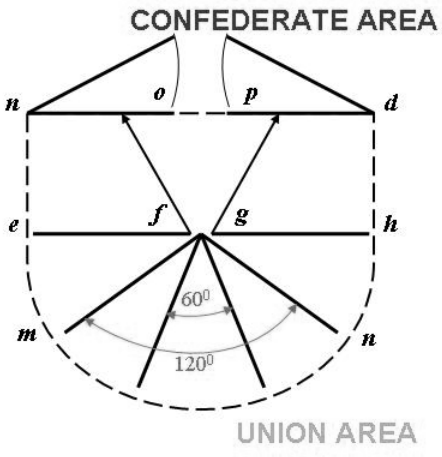
Figure 1 demonstrates the relevance of studying military factors as well as historical evidence. Dennis Hart Mahan was the tactics instructor at the U.S. Military Academy at West Point for decades. He taught most of the generals who fought in the Gettysburg campaign, and his influence on military thought was considerable. Mahan graduated from West Point in 1824, joined the faculty in 1832, and was the principle instructor in warfare until 1871. As the chairman of the "Napoleon Club," he was a proponent of Napoleon Bonaparte and Antoine Henri Jomini and was the principle interpreter to the American military of Napoleon's warfare strategies.[2] Mahan also wrote *Outpost*, the primary combat manual for most officers in the Civil War.[3]

In 1866 Mahan wrote an article providing his insight to the salient formed at Cemetery Hill at the Battle of Gettysburg. He addressed the angles formed by units and how the Union force had to deploy between 60 and 120 degrees at the apex. He discussed the relative combat power on both sides, the effect and direction of force on the diagonals of the parallelogram, the necessary command and control for both sides of the attack, the anticipated reaction to the attacks, the response to the reactions, and finally what orders needed to be issued -- and when -- in order to execute those reactions.

Mahan applied theoretical requirements to the specifics of the battle in critiquing performance. In doing so, he proved that self-analysis is a necessary step in improving performance and that the background of the participants impacted the course of events. Finally, he showed that beyond the historical documentation of events, exists the military factors hidden to most works. Mahan's tactical assessment is both technical and detailed, and would require significant effort and training to understand. The point of including it here is not to overwhelm the untrained historian, but to demonstrate the complexity of the events. That is to say, there was much more going on than the belief in some circles that two armies just showed up and shot at each other. There exists an entire world of military art and science generally ignored by historical discussion. Mahan unmasked both the art and science of war through his calculations and explanations of the manipulation of the forces to advantage.

FIGURE 1.
"Just show up and shoot" theory
Vs.
Impact of Education and Experience

And
Gettysburg Salient
(Cemetery Hill)



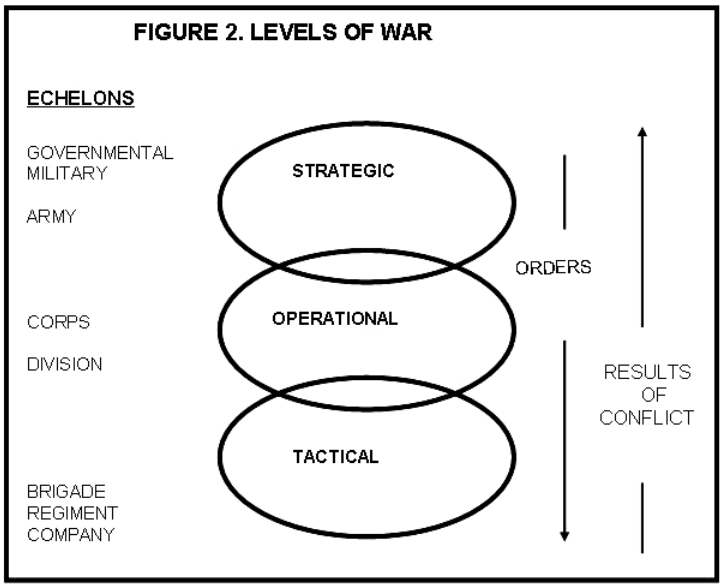
Army Navy Journal
26 May 1866
Dennis Hart Mahan

PARAMETERS

In addition to exploring Lee's planning effort, this article will also cover the effort his immediate subordinates undertook to meet that guidance. It specifically focuses on the operational level of war where it coincides with the tactical level. It includes the cycle of operations from the planning phase through the execution phase, showing the relationship between the results of a previous phase of battle and the orders and execution for the current phase of battle.

The larger decisions provide the context for lower-level orders and actions. To the outside observer, apparently unconnected events occur around the battlefield with no controlling idea. When one keeps in mind military principles and considerations and seeks to understand the intent of the larger decisions, these lower-level events fall into a cohesive pattern. Events and intents are linked. Once these events are put back into context, evaluation of what went right and what went wrong can occur. The serious student can go beyond the "who" and "what" to answer the question "why."

To understand and focus attention, Figure 2 provides the levels of war. The modified figure below depicts the levels of war from the current U.S. Army Field Manual 3-0.[4] While this depiction has only recently been formalized in army manuals, these levels existed in planning and execution during the Civil War. Interestingly, the recognition of differing levels and a corresponding analytical process to bring cohesion to the planning effort was espoused almost 200 years ago by Jomini, when he distinguished between theaters of war, lines of operation, and appropriate maneuvers.



"The strategic level is that level at which a nation determines national security objectives and guidance and develops and uses national resources to accomplish them."[5]

"Operational level is the level at which campaigns and major operations are conducted and sustained to accomplish strategic objectives within theaters … It links tactical employment of forces to strategic objectives."[6] Some examples from the operational level of war: Lee's overall intent for battle and his selected scheme of maneuver in order to achieve that intent. Analysis of the mission options, the enemy, terrain, and friendly forces in the development of that scheme is essential in understanding the context of Lee's intent and provides the linkage between the operational and tactical levels of war. This level corresponds to Jomini's "grand tactics."[7]

"Tactics is the employment of units in combat. It includes the ordered arrangement and maneuver of units in relation to each other, the terrain and the enemy …"[8]

Orders flow down the chain of command just as results of battles become an input for the next skirmish, battle, campaign, or strategy. Orders provide the link between the higher command levels and the soldier. They are the downward expression of the commander's intent. The results of skirmishes, engagements, battles, and campaigns are upward reflections of how effective soldiers are in executing those orders. Orders and results form a cycle of intent and action in which armies operate.

One of the elements of understanding the levels of war is the study of the impact of time and space, which is one of the confusing aspects of studying the battle. During the Civil War period, operations were not conducted by coordinating time. Once orders were issued, it was expected they would be carried out efficiently and with alacrity. Consequently, commanders did not do time checks or orient operations specifically to time. Similarly, in writing of events, one participant's timepiece may have differed from another's. Of course, the demands of adding space (distance) to an event further confused issues of time. For example, it appears from

studying the numerous messages between the Federal headquarters at Taneytown and the units on Cemetery Hill, that the riding time between locales was approximately 90 minutes. As a student deciphers when notes were sent, when intelligence was noted, when decisions were made, and when the executor of those decisions was notified in order to carry them out, that time window must be added into the sequence for analysis. Challenges remain. A note sent at 2 P.M. would be received at about 3:30 P.M., but the addressee might accurately annotate 4:30 P.M. in his memoirs. The circumstance is usually not intended deception, but it adds to the confusion. But reflecting on the time element helps answer the questions: "What did the commander know and when did he know it?" and "What did the commander intend and at what time?" Every order, once decided, takes time for delivery and space to execute it.

For this phase of battle, that time and space were needed for Longstreet's march and attack is a case in point. Due to the general lack of appreciation of the impact of time and space, discussions usually become focused on the documented historiography. So many writers have documented what they know, what they speculated, and what was rumored. This sort of debate of "who said what and when," rightfully rests with historians. However, the factors and impact of time, space, and intent on the operation fall in this tactical discussion. If the context of the overall battle can be identified and understood, it may add some clarity to the historical debate by illuminating the impact of military factors.

Part of this foundational work lies in the background of the participants. Their education and prior experiences brought them to this point. The influences of their studies and the lessons they learned from their previous battles all contributed to their understanding of the art and science of war and can further illuminate the impact of military factors on the Gettysburg campaign.

BACKGROUND

Education

The formal study of the art and science of military operations was in its infancy. Theoretical approaches to the challenges of the battlefield were being explored and developed by several icons of the period.

West Point instruction, historical references, and military journals of the period provided the framework of military thought, which directly influenced the deliberate attack of July 2. Practitioners of the period included Napoleon with his maxims, Frederick the Great, and such educators as Jomini, with his interpretations, and Mahan, from West Point. These men contributed to an evolutionary development of the theoretical art of warfare. Their concepts and ideas formed a framework in which successful tacticians could plan and operate.

Prior education directly influenced the scheme of maneuver for the deliberate attack. Frederick the Great, the influential and skilled Prussian leader of the mid-1700s, prized the flank attack, designing the "oblique order," whereby an attacker hit a defender's flank at an angle approaching 45 degrees rather than 90 degrees.[9] [9] The mechanics for conducting an oblique attack can be found in Hardee's Rifle and Light Infantry Tactics of 1861 and Casey's Infantry Tactics of 1862.[10] This tactic brings all attacking guns to bear on the defender, while protecting the flank of the attacker. Lee intended Longstreet to use this technique in positioning the main effort force.

Historical focus is usually on the forward areas where the units fight. However, the entire battlefield deserves study. Hospitals set up. Teamsters gather supplies. Supply trains wait. Scouts deploy. The all-important line of communication serves as a tether to the sustaining element of that army, notably the trains and the routes of egress in the case of defeat. Because of their importance, these lines are an anchor for these forces, and therefore must be protected in normal operations.

Jomini, the premier theoretician of the time, stressed the "proper order of lines of communication in relation to the enemy."[11] Lines of communication are an often-neglected part of the discussion, but according to Jomini are a most relevant aspect to planning and executing a campaign.

Similarly, Jomini's tenet of "concentration against the decisive point,"[12] that is, that "point whose attack or capture would imperil or seriously weaken the enemy,"[13] is vital to the discussion. Jomini went on to clarify that the tactical goal was to bring "the greatest possible force in a combined effort against the decisive point."[14] Lee's selection on July 2 of the decisive point and focus of combat power on that point met all these criteria.

Selection of the decisive point is problematic when studying Napoleon and Jomini. It is unclear how they identified this point, except through the discerning eye of the commander.[15] However, application of massed force on a specific key target was an improvement over the mass charges against massed formations resulting in mass casualties that characterized the previous era of warfare. In this regard, the emergence of the concept of the decisive point resulted in fewer battles of annihilation, more focus of combat power, and therefore, more reliance on command capabilities. Smaller armies could multiply their power by selectively applying their power.

Napoleon used interior lines and subsequent attack on a portion of the enemy as a common method of operation.[1615] With superior intelligence and increased ability to concentrate, smaller armies could achieve success over larger armies by attacking isolated forces and defeating larger opponents piecemeal.

While Napoleon sought battles of annihilation, he knew how to conduct a pursuit, as he did after his 1806 victory over the Prussians at Jena. Frederick also understood that a beaten army must be pursued for final destruction,[17] and Jomini wrote that, if beaten, the enemy must be pursued relentlessly.[18] The pursuit phase followed the earlier attacks and is critical in the case of a fleeing enemy.

Education would also provide warnings to the leaders regarding maneuvering in the face of his opponent. Jomini would caution that grand maneuvers (greater in distance than local flank attacks) should not be performed except in extraordinary cases. Two days of marching should separate opponents.[19] Maneuver might be conducted with more limited depth, only if the opposing commander "shows little skill" and only when numeric superiority exists.[20] Napoleon's Maxim 30 cautioned: "Nothing is so rash or so contrary to principle as to make a flank march before an army on position, especially when this army occupies heights at the foot of which you are forced to defile."[21]

Experience

In Pennsylvania Lee found himself in conditions very similar to those he experienced in Mexico. His army was in a "foreign country." Reconnaissance was therefore essential in gaining intelligence on both terrain and enemy. His army was smaller than his opponent's. He therefore had to be prepared to fight a campaign rather than the Napoleonic single titanic battle. Audacity would have to be measured against risk. Maneuver against weakness could bring victory.

The Civil War experience to this point offered some patterns for determining the scheme of maneuver. Frontal attacks resulted in high casualties and few positive outcomes – certainly not the concluding battle of any campaign. Lee had conducted these attacks unsuccessfully at Malvern Hill and Antietam. He had witnessed the Fredericksburg frontal attack but could not rely on the enemy to be as foolhardy again.

Conversely, flank attacks, such as those performed at Second Manassas and Chancellorsville, had resulted in fewer friendly casualties and increased chance of success. When given an opportunity, flank attacks yielded better results. Flank attacks also had the benefit of leveraging

some of the disadvantages caused by insufficient numbers. While flank attacks offered these benefits, they were, by definition, conducted from an unexpected direction. The level of surprise achieved is directly proportional to the distance from the expected direction of enemy attack, usually defined as the known position of enemy forces. At Chancellorsville, the gap between Stonewall Jackson's flank forces and Lee's holding force was significant, thereby increasing the element of surprise and enhancing the historical admiration of Lee's guile and audacity. It is also true that the greater the distance between forces the greater the risk. Dividing forces in the face of the enemy has an inherent increased risk. Increased distance of the gap and increased time to execute movement increase the opportunity for detection and counteraction, such as refusing or reinforcing the flank, or attacking the increasingly isolated force.

At Chancellorsville, Lee was operating on interior lines on an operational level and exterior lines on a tactical level when he dispatched Jackson to out-flank the enemy. However, at Gettysburg Lee was operating on exterior lines on both levels. A compounding element of risk at Chancellorsville, further enhancing history's admiration of Lee, is the allocation of forces. Lee retained 40 percent of his total force available with the blocking force and allowed Jackson to maneuver with 60 percent. The larger the maneuvering force means the greater the potential payoff, but the more risk to the blocking force, which by definition is located in an area of expected enemy activity.

Experience also provided Lee some insight into his adversary. To date, the Army of the Potomac was cumbersome in battle. It failed to follow up success. It magnified any setback in its response. At times, his enemy seemed oblivious to changing plans once the battle began to meet the demands caused of the enemy. Tied to its plan, it fought that plan until withdrawal in defeat was the only option. Apparently the Army of the Potomac was more concerned with losing a battle than winning a battle. If Lee was confident of his army's ability, he had sufficient encouragement from his enemy's poor leadership.

Education and experience provide a common framework in which men and armies operate. On the simplest level they provide a common language and *modus operandi*. When a commander directs a flank attack, he does not expect a subordinate to conduct a frontal attack. On a more sophisticated level, they lead to an expectation that the nuances of that flank attack will be undertaken (e.g., flank security and needed surprise for a flank attack to be successful) without orders. On the highest level, they distinguish what is possible, what is improbable, and what is impossible (e.g., how much friendly combat power would be needed to successfully accomplish the flank attack).

Truisms

The deliberate attack of the period has several truisms applicable to Lee's July 2 effort. The most relevant truism to the Gettysburg discussion is that a smaller army is limited in what it can do. While the Federal army suspected that Lee's force was approximately the same size, Lee was fully aware of his inferior numbers. At that time, combat power equivalents were determined by numbers of soldiers and cannons. While differences existed between rifled and smoothbore weapons, minimal impact occurred on the overall equivalents. The combat power of 1,000 Confederates was generally equal to the combat power of 1,000 Federals. Differences might exist in leadership and morale, but combat power was about equal.

A smaller army cannot surround a larger army. While history yields some anomalies of victory for the smaller combatant, such as the Battle of Cannae, specific conditions must be met. First, the smaller army must be able to bring its vast majority of forces into contact with the enemy while depriving that same ability to its enemy. Seven (or 70,000) soldiers can surround ten (or 100,000) soldiers, if all of the seven can be on the front line while only four or five of the ten are allowed to fight at a time. The fight is then seven against five. Napoleonic "squares" were hollow

in the center for that reason. A solid mass of men would not be efficient with a majority in the center being masked from use. Secondly, terrain must be either neutral or favorable to the surrounding army. Superior terrain occupied by an inferior army may offset the disadvantages of numbers.[22] Lastly, the leader of the numerically superior enemy must make mistakes to permit the above conditions to come to fruition.

None of these conditions existed for Lee at Gettysburg. Lee's adversary was already operating on interior lines, encouraging Lee to operate on exterior lines. And Lee's enemy was occupying good terrain. Lee could not expect General George Gordon Meade to make such a simple mistake. Indeed, Lee believed Meade would not make mistakes.[23] Assuming Lee's smaller army, with exterior lines, could initially control terrain around Meade's larger army, the larger army, operating on interior lines, could overwhelm any point on the perimeter in an attack and break out from encirclement. With equivalent combat power, a surrounded larger force cannot be forced to remain inside the pocket. Surrounding his enemy was not an option for Lee.

A larger army, however, can be defeated psychologically, where the nerve of the commander becomes the decisive point and is attacked. The target of the flank attack is not only the exposed unit, it is also the mind of the defending commander. A flank attack is, by design, unexpected, and its impact goes beyond the soldier under fire. The import is magnified in the mind of the attacked commander. At Chancellorsville the target was not just Howard's exposed 11th Corps flank, but also Hooker's mind. At a minimum, unexpected flank attacks interrupt the defender's intended plan. At a maximum, they cause panic or freeze the defender in place long enough to result in an even more significant defeat. It is unique for a commander faced with unexpected danger to immediately consider his opportunities for success. Most recoil. To date, Lee's successful maneuvers had most impact not against the soldier, but against the enemy commander.[24] Lee respected Meade. (Seldom does a people produce two leaders seemingly un-phased by fear, but the United States did with Lee and Grant.)

Given the above, Lee's smaller army could only expect to defeat a larger army a piece at a time, militarily. Lee did not have the numbers to attack all the Federal force simultaneously. He would have to focus his force at particular points. He would have to use his force efficiently, as well, and "Get all the guns into the fight." Lee could not afford any portion of his force to remain idle, or commit forces to other than important tasks. Lee had to this point been successful in this effort, where he brought significant Confederate forces to bear against limited selected Federal forces. Rather than attack many units, Lee focused on limited enemy forces.

The second truism is that offense is more efficient than defense.[25] The attacker controls the level of energy (tempo) and can employ his forces more efficiently by focusing his assets.

In the offense, even an inferior force can focus its power, strike swiftly against a weakness, rupture a defense, and quickly exploit any gained advantage before the enemy can regain its composure. Intelligence and quick maneuver are key to this offense. By setting the tempo of battle and forcing the enemy to respond to friendly efforts, the attacker can more easily achieve efficiencies.

In the defense, by the sheer act of defending, any force initially has unused forces. Defenders always hold more terrain than will be attacked. By using terrain advantageously, the defender tries to wear down the attacker, then seizes the initiative by counterattacking. Keys to the defense are excellent intelligence and the superior use of terrain. The defender must rely on weakening the attacker before it can exploit the initiative. A comparatively smaller defender is that much more disadvantaged.

These limitations of the first two truisms will have significant impact on Lee as he develops his specific scheme of maneuver. Having culminated his hasty attack, Lee's options were to conduct a deliberate attack, shift to the defense, or maneuver and restart the operations sequence again.

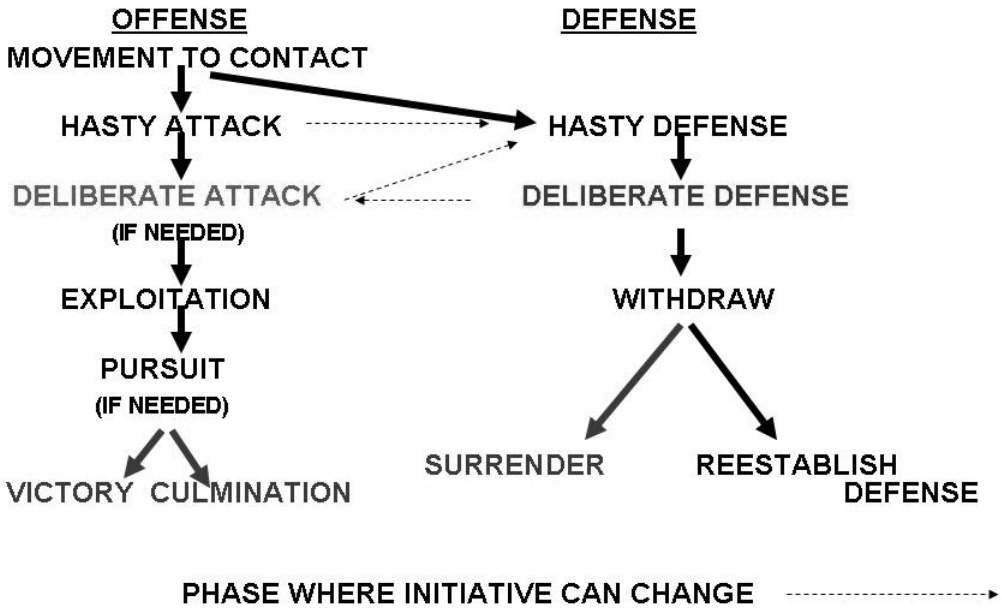
A third truism is that operations have an orderly sequence. Military operations flow in a logical series of activities. Figure 3 shows this sequence. For example, hasty attack and hasty defense are the logical extensions from movement to contact. Once a commander makes contact with the

enemy, his choice is limited to either defense or offense, if he remains in the area. Should he decide to conduct a hasty attack, and it succeeds in forcing the enemy to withdraw, he begins exploitation. On the other hand, should the hasty attack fail, he undertakes a deliberate attack with detailed planning to maintain the offense. Or, if he deems it appropriate, he reverts to the defense, first in a hasty manner, then deliberately. A commander cannot exploit the situation before conditions are favorable to do so. Those conditions inherently follow successful attacks.

As the battle progresses, this sequencing unfolds in the eyes of the reader. It is inescapable. Note that certain actions cannot lead directly to victory. Lee's hasty attack of July 1 could not lead immediately to victory. Future phases are needed. Defensive operations cannot lead to military victory. Subsequent offensive phases are needed for decisive military victory.

However, the serious military student must look for additional opportunities to explore the decision-maker's other options. For example, as he witnessed his hasty attack, Lee had the options of hasty defense, breaking contact by maneuver and restarting the phases on another battlefield, or conducting a deliberate attack. While they appear as less valuable "what if" drills, the professional student must ensure that potential decision points are discerned and options considered – this is the initial step in grasping the lessons learned. In doing so, the focus now becomes the question: "Why?" To analyze the battle, we need to go beyond the "What, where,

Figure 3. PHASES OF OPERATIONS



and when?" Only then can the serious military student consider application of the lesson learned to future battlefields. To initiate each one of these phases, a command decision ensures proper command and control and unity of effort. Commanders have options, and seek additional options. Then, commanders select from the available options after deliberation.

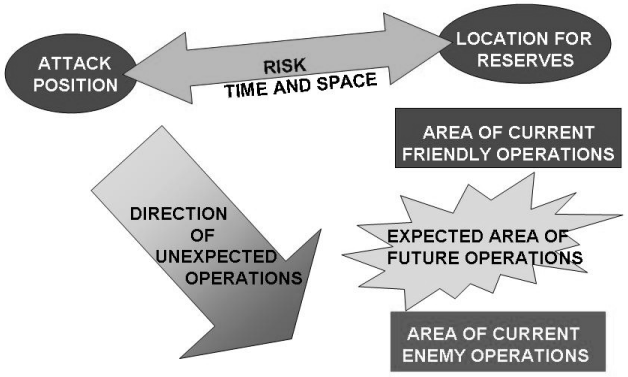
Studying the campaign follows these sequencing of operations and identifies command decision points. For example, on July 1, Lee proceeded from movement to contact to hasty attack. Did he consider hasty defense? What factors should he have considered? What weight should be applied to these factors? Each decision point inherently has options, by definition. During the

course of the battle on July 1, it is documented that Lee considered maneuver from the Gettysburg battlefield, but chose to remain.[26] What were the relevant factors to that decision, and did those factors change in the course of battle, indicating a potential decision point? Was there any reconsideration?

Conversely, ignoring decision points and continuing through the battle as if the decision points do not exist, makes the commander an observer to the battle, rather than a participant. Either the leader will control events, or events will surely control him. Successful commanders control events.

The fourth truism is related to operations sequence. Decisive battle must have a concluding offensive phase. Offense brings victory. Once in the offense, remain there. If one assumes the

Figure 4.RISK INCURED WHEN SHIFTING FROM DEFENSE TO OFFENSE



offense too quickly, then one must adjust the environment to remain in the offense. One consistent factor in studying Napoleon, Jomini, or Mahan, is that the offense dictates the battle. Mahan noted that even a successful and decisive defensive battle requires a terminating offensive phase.[27] Even an unsuccessful attacker, delivering blow after blow on the defender, will not continue to do so to the point of attacker annihilation. When the attacker becomes too weak to attack, he will go on the defense himself. This allows initiative to pass to the opponent, if an offensive phase is possible. Defense alone can never result in decisive military victory over the enemy. At best, defense alone results in stalemate, and Lee was not interested in stalemate.

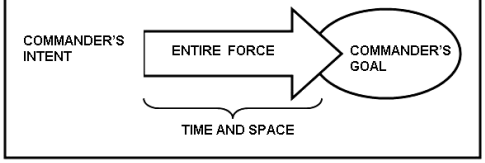
Commanders must also seek to maintain the offensive momentum of an attack by introducing additional forces to capitalize on the successes of the initial attacking force, usually during the exploitation and pursuit phases. An attack that is successful, but which has insufficient forces for exploitation and pursuit, will terminate prematurely with limited success, as it did as Second Manassas (or Bull Run) and the first day's battle at Gettysburg. Forces during the allocation process cannot be shortchanged. The attacking force, exploitation force, and pursuit force must all be sized to succeed. Shortchanging one force at the expense of another will either bring defeat or premature culmination. If insufficient force is available to properly resource all phases, the commander must resource the earlier phases first.

The next truism is that the greatest risk to an attacking commander occurs during movement of the attacking force to its attack position. The attack position is the position occupied just prior to beginning the attack. Commanders allocate forces to achieve certain tasks in the planning phase. Attacking commanders allocate forces for the main effort (the single effort most essential in seizing the objective) as well as shaping efforts that assist or contribute in some way to the main effort. To create flexibility and to enhance the chance of success, commanders may shift the

emphasis from the main effort to a shaping effort, if favorable opportunities emerge. Shifting the main effort allows for another way to achieve the desired outcome.[28]

As a result of this allocation process, commanders usually do not have sufficient additional forces to serve as reserves (needed to respond to enemy activity) and still resource the other offensive needs simultaneously. (Smaller armies of the period, given combat equivalents, would never have excess forces for both tasks.) Given that reserves are located to assist in the general location of expected enemy activity, and that attacking forces are usually repositioned to an area of unexpected enemy activity, the two locations are usually distant from each other. As the

FIGURE 5. INTENT LINKS UNITS TO DESIRED GOAL



attacking force moves from its reserve position toward its attack position, it becomes unavailable for reserve or other duties. During this time the commander is most vulnerable to enemy action. Figure 4 displays this dilemma during the transition to the offense.

Another truism is that events are linked by time, space, and hopefully, by intent. Campaigns are conducted to achieve certain goals. Those goals remain constant for as long as the force is able to achieve them. They provide an umbrella for all actions. How a commander goes about achieving those goals may evolve. He may use offensive action, if advantageous, and shift to defensive action, as circumstances dictate. But his goals remain constant. Students of the battle must keep the goals of each commander foremost in their minds to maintain the relationships between events and units. Some study the Battle of Gettysburg believing each day was a whole new beginning, unrelated in intent, time, and space. Confusion results rather than coherence.

Regarding space, 10,000 men take up so much space. Divisions of 5,700 men on a line take up so much space. And to defend against 5,700 men takes a certain number of men, given terrain and other factors, and those men take up so much space. Time and space are unchanging realities when considering command decisions and are a significant factor in those decisions and the tactical events associated with them. Time and space are part of the friction on the battlefield.

Soldiers require a given amount of space, whether on a road or shoulder-to-shoulder in the attack. Two men cannot occupy the same space, yet often in historical references units magically move from one part of the battlefield to another or are not allocated sufficient space on maps for their units. A brigade of 1,500 men in double lines would present about a 450-yard front. Controlling that frontage during battle is not an easy task. Divisions and corps are that much more difficult. Increasing levels of forethought and anticipation are needed the higher the echelon. Students of the battle may find the movement of forces, the impact of logistics, and the ordering of lines of communication more mundane than the excitement of individual stories, but these are of utmost concern to high-level commanders and drive those lower-level events, so well covered by historians.

Regarding time, it takes a given amount of time to move a determined distance. It takes a soldier 20 minutes to walk a mile and perhaps 12 to jog that same mile. Add streams, vegetation, slope, and other distractions, and time increases.

Goals and intent link time and space to historical events and therefore must be viewed as the package they are. A hasty attack is conducted with an abbreviated decision-making process with whatever forces are immediately available from the terrain currently occupied. A deliberate attack

is conducted after gathering information, detailed reflection, and organizing forces that are sized appropriately to accomplish specified tasks. Deliberate attacks should be unified in their effort to maximize opportunity of success. Diversion of forces is inefficient and limits opportunity, especially for a smaller army.

The last truism is that the attacker picks the time of battle, and the defender picks the place. Simply stated, the attacker will organize and move his force to a position, and when he is satisfied, he will begin the attack. If he is not satisfied, he will delay his attack until he is. The defender who is dissatisfied with his position will adjust or move to a more advantageous position.

Lee had many goals for the campaign, one of which was to draw the Federal forces into a battle where they could not withdraw to safety, as they had always done in defeats before this. He had to position himself so that he could, with initial success, follow up with additional successes and force the Federals to fight a decisive battle. If he could achieve tactical success locally, he would force a more significant conclusion beyond Gettysburg.

SITUATIONAL ASSESSMENT

Results from the Hasty Attack

Lee's overall assessment to this point was favorable. He had linked up the main body with Lieutenant General Richard S. Ewell's advance guard. Longstreet (minus Major General George Pickett's division) would close in behind A.P. Hill during the night, releasing Brigadier General Robert Anderson from reserve duties and protection of the army's southern flank. Major General Edward Johnson was joining Ewell, and Major General J.E.B. Stuart would close in some time during the day. Lee had not expected to make contact with elements of the enemy's main body, but there can now be no doubt that both armies were in the Susquehanna Valley and that his line of communication (LOC) was secure. His short-term goal of forcing the Army of the Potomac east of South Mountain and away from the LOC had been achieved. He had escaped being trapped in the Cumberland Valley. His force had advanced far enough into the valley, and he had secured enough of the road network to maneuver, and if necessary to withdraw, needing at least two passes or access to the open terrain to the south to accomplish either. He, of course, had the option to continue the attack – a full range of options for the commander. His force had severely damaged two corps, if the evidence from the littered fields and the lines of prisoners was an indication. Those same fields revealed the cost to Robert Rodes', Harry Heth's and William Pender's divisions.

Dawn would bring the answer to the question of whether Meade was going to concentrate at Gettysburg at a forward location or further to the rear. Meade would not leave the remnants of two corps isolated from the main body for any length of time. By morning Meade would have had almost 24 hours (all forces within an arc of 25 miles of marching) to concentrate himself. While Lee should have been encouraged up to this point, if Meade had decided to concentrate his remaining forces at Gettysburg (rather than any point further to the rear), Meade's continued presence could not be viewed as positive for the Confederates. If he was in Gettysburg tomorrow, Lee knew that Meade must have thought it advantageous to concentrate there. The day's results, if that became the case, were certainly not that positive. To this point, the battle was a draw operationally, with each side retaining the key to their respective efforts. Lee retained the initiative, and Meade retained the blocking position needed to concentrate – Cemetery Hill.

Mission

Lee's overall military objectives remained well within his grasp. Having to defer the further gathering of supplies,[29] his enemy was a great distance from Washington. With his enemy coming toward him, Lee had set the precise conditions he had sought. He had sufficient operational depth to conduct a series of engagements to destroy his enemy and then threaten the capital.

Maneuver or Stay?

Even in the absence of the intelligence and security Stuart's cavalry could provide, Lee had five options: Maneuver north and west or south and east to another battlefield, remain and defend, fall back toward Cashtown and defend, or continue the offense. Maneuvering presented several challenges, including the tactical requirements to execute, the need for security and intelligence, the suspected enemy situation, and finally, measuring the potential benefit.

Maneuvering to another battlefield would require a turning movement, in which the attacking force seeks to avoid the enemy's principle defensive positions by seizing objectives to the enemy's rear, either causing the enemy to move out of its current positions or divert major forces to meet the thrust.[30] A turning movement, to be conducted safely, is a positional attack that requires mutual support. When close to an opponent, turning movements have increased risk. Jomini would caution that a separation of two days' march was required to execute a turning movement or "detour." To be successful, numeric superiority was essential, and the opposing commander must have limited "skill." Lee faced several constraints. With the Federals so close, the maneuvering force must be within supporting distance of friendly forces, lest it become isolated, detected, attacked, and defeated.

Following some Napoleonic guidance, some writers, even some key participants,[31] suggest that Lee should have maneuvered to another battlefield. A likely selection would have been the vicinity of Pipe Clay Creek, coincidentally the same location selected by Meade as a potential area from which to execute a defense. Maneuver may have been an option prior to the hasty attack, after which Lee rules it "impracticable." The challenges of security and intelligence caused by Stuart's absence, and the hasty attack's generally positive result, made maneuver less attractive. Stuart would be needed to provide a screening force and reconnaissance force during any shift.

For an operational turning movement to the south and east, terrain would greatly constrain Lee. The distance from the mountains near Fairfield and the Round Tops is less than 10 miles. Without Stuart to provide security and intelligence, Lee could not move some 20 miles to Pipe Creek in relatively open country in march column. He would have to occupy a series of positions to maintain supporting distances, "leapfrogging" his units to Pipe Clay Creek – a more difficult proposition. Those supply trains already east of Cashtown Pass would also have to move simultaneously with the combat troops along parallel routes for protection. Given the less than 10-mile depth, good parallel routes are not available.

Shifting south to Pipe Creek would have necessitated a shift of the lines of communications to the south of Cashtown Pass to either Monterrey Pass behind Fairfield or through Hagerstown even further south. Maneuvering to the south while maintaining the current LOC would expose the LOC to attack and disruption, causing the diversion of combat power, and thereby hurting the chance of success against the enemy. Maneuver south and east would require adjustments to the LOC. It would take care and 24 to 36 hours to implement that shift. Time was not on Lee's side.

Consider the scout who reported to Lee on the evening of June 28 that five enemy corps were located toward the southern end of South Mountain and near Frederick City. Also reflect that A. P. Hill and Lee conferred early on June 30, and Hill reported that "[Lee's] scouts corroborate what I have received from mine – that is the enemy are still at Middleburg and have not yet struck

their tents."[32] Both these reports indicate significant enemy forces along the route Lee would take to move from the current point of concentration at any point south and east to threaten Washington. To be sure some enemy corps have been located in the vicinity of Gettysburg, but not all corps. To maneuver without security and intelligence toward an unscouted location in enemy territory, when the enemy cavalry is present and active, into an area where suspected enemy corps are located is problematic to say the least. Maneuver remained "impracticable." In is interesting to note that Lee thought maneuver "impracticable," while Meade considered it "sound military sense," and an option Meade "feared Lee would take**."**[33] In reality, by moving to Gettysburg, Meade constrained Lee's ability to maneuver. Such are the uncertainties and ironies of war!

While some enthusiasts question why Lee did not maneuver toward Pipe Creek on July 1, few writers bring up maneuver to the north and east. This option would be extremely dangerous even had Stuart been present. While it was a tactical option, maneuvering further into the Susquehanna Valley would expose the LOC to attack and endanger Hill's isolated corps as the movement occurred. Exposing one LOC by maneuvering to attack "would be a great fault."[34]

Assuming that Lee could maneuver safely to defensive positions either south and east or north and east, how could he force Meade to attack him? Meade could simply move parallel to Lee and again interpose his troops between Lee's army and Washington, wait for some advantage (while Lee could not wait),[35] conduct operations, and if needed, again fall back to the protection of the Washington defenses north and west of town. Lee spent considerable effort after June 25 moving further and further north to draw Meade away from those defenses,[36] so to now allow Meade those comforts would be to surrender the advantage of operational depth that Lee sought. Lee knew he might need that distance to conduct a successful pursuit of the Federal army. Maneuvering would shorten the enemy's LOC while extending Lee's, thereby exposing it to attack when his own cavalry was unavailable to protect it. The only viable options were continuing the offense, or assuming a defensive posture near Gettysburg. Lee had to defeat the enemy before advancing toward Washington. He either had to attack Meade or force Meade to attack him. How he could do that, other than through an "impracticable maneuver"?

Attack or Defend?

Meade's moving to Gettysburg, coupled with the absence of Stuart, greatly limited Lee's maneuver options. His only viable options were to remain and defend or continue the attack.

Lee's educational background encouraged offensive action,[37] and his experiences to date had shown that defensive action never resulted in victory. In addition, Lee was in enemy territory. Should Lee retain the initiative and attack, or should he revert to the defense? Stating with certainty what thought processes and weights Lee applied to specific categories is problematic. However, the following generally form the basis for analysis. An analysis of terrain, the friendly troops available, and the situation of the enemy can illuminate the factors Lee would have considered for decision. Each category requires sub-categories and separate analyses prior to developing a plan. Each category can impact the results, and the combination of all the categories into a final analysis is needed to develop a sound, comprehensive plan. It is far too simple to consider that regardless of circumstances, Lee would always attack. If a numerically superior enemy were on excellent terrain, with no weaknesses, even the most ardent supporters must allow Lee the depth of reasoning to consider a defense.

Terrain

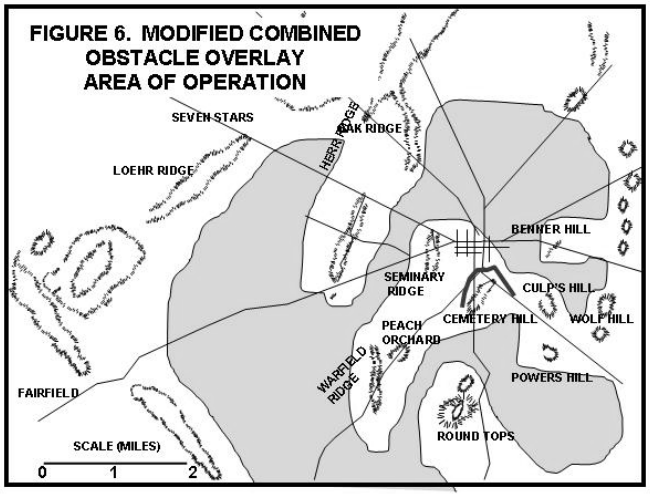
Figure 6 shows key terrain in the general area of operations, and Figure 7 shows the specific slope of key terrain on the Gettysburg battlefield. The Federal forces occupied Cemetery Hill after Lee's hasty attack. While not dominant terrain in itself, the gentle slopes between it and town to the north, west, and south, and the more vertical terrain to the east combined to enable the hill to dominate the road network to the east and south. Culp's Hill and Wolf's Hill, to the east, and the Round Tops, to the south, were more dominant, but unoccupied, hills.

Lee had seen the terrain on July 1 as he rode toward Seminary Hill. Figure 6 shows the area of operation, including key terrain, built-up areas such as cities and towns and the road network, and the location of known enemy forces. The shaded areas depict terrain dominated by adjacent high ground. These areas are not conducive to defending forces in that enemy artillery can use plunging fires from high ground, causing casualties without ground attack.

Another option would be to fall back toward Cashtown, either along Loehr Ridge in the vicinity of Seven Stars or at Cashtown itself. Cashtown offers no sustainable area for battle. Support elements would need to be near Fayetteville – too far to the rear. To the west of town, undulating terrain with streams in the intervening low grounds generally ran north and south beginning with Seminary Ridge and going westward past the village of Seven Stars, a distance of about four miles. South of that village was a hill complex (Carr Hill). These hills could anchor a defense that ran along a ridge to the northeast to another high ground to the north of Chambersburg Pike.[38] Loehr Ridge does offer good defendable terrain (Figure 6), but the potential loss of access to the second pass (Monterrey) would inevitably lead to the same constraints posed by the Cashtown Pass. Lee would be "painting himself into a corner."

Regarding the option of defense near Gettysburg, the undulating hills of Herr's Ridge to the immediate west of Gettysburg could also serve as a defense from attacks from the east, but attacks from the south could move north paralleling these hills, thereby negating their advantages. The valleys between the hills were essentially avenues of approach running north and south. Similarly, Confederate forces moving south in this same valley would be masked from Federal forces near Cemetery Hill first by Herr's Ridge and then by Warfield Ridge. Either Lee could use the hills to mask his move south, or the enemy would use them to move north against Hill's southern flank.

The Peach Orchard-Warfield Ridge area was key to operations on the south side of the battlefield. While the Round Tops could provide observation of the orchard, observation further west into the low ground was limited. Occupation of Warfield Ridge would not only provide observation into that low ground, but also an artillery platform to engage forces in that low ground and along the Seminary and Herr's ridges, as well as access into the southern flank of the



Confederate force. On the other hand, Confederate control of this area provided access into the Federal army. If occupation was not possible, denial to the enemy, such as with cavalry, was necessary.

For Lee the terrain between Cemetery Hill and the Round Tops was masked by the rise along the Emmitsburg Road. Except for Powers Hill, the ground to the south of Cemetery Hill and east of the Round Tops was not visible.

Some of the terrain that had favored Lee on July 1 now worked to his disadvantage. Oak Ridge ran from the north of town to the north and west and so dominated the Seminary Hill complex and the vast valley to the north of town that it, along with the town itself, split the Confederate-held part of the battlefield. To the east of town, Benner Hill dominated that same valley. Benner's Hill was also adjacent to other hills to its north, east, and southeast. Although Benner Hill commanded the ground to its northwest and west, it was in turn dominated by the adjacent hills to its east and south, and these hills were accessible by the York Road and Hanover Road. To hold Benner Hill the passes along those avenues of approach would have to be held. Wolf Hill, the closest hill between Benner Hill and Culp's Hill, would have to be neutralized, if not taken. Federal forces on Wolf Hill adversely affected occupation of Benner Hill and greatly restricted Confederate access to Culp's Hill. During the hasty attack, Oak Ridge allowed Ewell to dominate the Union 1st and 11th corps. On July 2 this same terrain split the Confederate efforts. Given the isolation to forces east of town caused by the Rock Creek valley, the town, and the access by adjacent terrain, defending in the Benner Hill area was problematic. Even in the offense, Ewell's divisions of Johnson and Major General Jubal Early were isolated from other friendly forces. From the vicinity of Benner Hill, additional hills, including Powers Hill, were again visible from the north.

The town itself was a challenge to command and control. Attacking through town was difficult in either direction. Advancing lines through town could not be formed or maintained. Even if a force was successful moving through the town, it would face a delay to reestablish order before continuing any further. This delay would expose them to anti-personnel artillery fire for an extended period of time. Given the current dispersed force, holding the town was essential to provide a link between Ewell and the rest of the army. Holding the town was better than not holding it, as it acted as hinge around which units could swing either in the offense or defense. If Benner Hill fell to the Federals though, the town would have to be vacated with forces pulling back to Oak Ridge.

The key to Benner Hill was the Wolf Hill area. While its height rose above other terrain, vegetation hindered its use for observation and as an artillery platform. Adjacent terrain features such as the extensive ponds from McAllister's Mills and Rock Creek combined with the hill itself to form a significant obstacle. An army had to control not only the hill, but the surrounding hills and valleys to gain any advantage. In controlling that area, an army gained access to Baltimore Pike to the southeast, the Hanover road to the north, Benner Hill to the northwest, and Culp's Hill to the west. Sufficient troops were required to accomplish that control. A commander had to have sufficient forces to anchor his line to this obstacle, but also have sufficient forces to control adjacent areas as well. If the Federals controlled Wolf Hill, the Confederates did not have sufficient access to Culp's Hill, and Benner Hill would be threatened.

Figure 7 details the immediate slope of the terrain of key hills to provide some appreciation of the participants' ability to discern elements of topography. Shown here is the slope of the hills, depicted as a percent of climb from the geographic crest of the hill for a distance of 300 yards in specified directions. Three hundred yards is used because that is the distance at which enemy artillery and infantry rifle fire is most effective. Clearly certain advantages exist from specific directions, while disadvantages exist in other directions. Many writers focus on the elevations of the hills. Those that have to climb the hills note that it is the slope that makes a climb easy or difficult. The legend shows the percentage of slope and provides a corresponding profile. Climbing a 40 percent slope under fire is a significant challenge!

Vegetation and streams had some limiting considerations, but to a lesser extent than slope. Vegetation on Culp's Hill, the Wolf Hill complex, and some of the Round Tops complex provided cover and concealment for the defenders, while breaking up command and control efforts of the attackers.

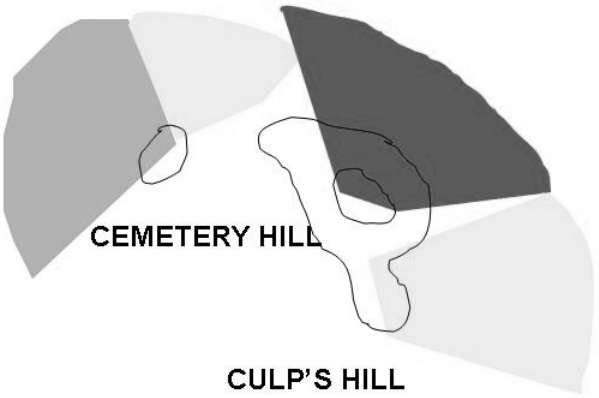
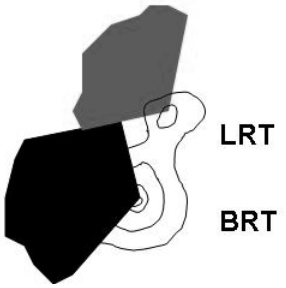
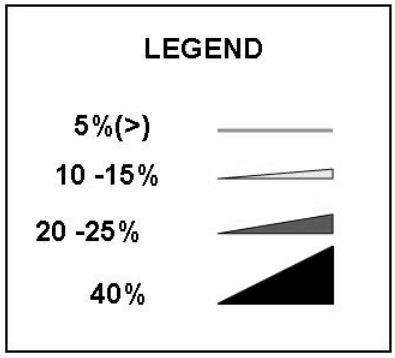


Figure 7. Impact Of Slope On Offensive Decisions





Terrain did not support the status quo for Lee. Ewell was isolated, and Lee's southern flank was exposed. While the terrain in Hill's front was favorable, the terrain facing Ewell was not. Either Ewell would require further extension or withdrawal. Control of the Peach Orchard-Warfield Ridge area would facilitate operations in the south, and control of Wolf Hill would allow operation on the north and east side of the battlefield.

Friendly Troops

Four Confederate divisions had damaged two Federal corps on July 1. Now Lee had eight divisions available (three being damaged). Ewell's corps was now together along with his trains. Anderson started rejoining Hill at dawn. Longstreet (minus Pickett, who would arrive later in the day once relieved by Brigadier General John D. Imboden) was three miles behind Hill. Longstreet directed further movement forward early the next morning. That order was rescinded[39] until Lee had finalized his plan. To determine "the who, where, and how" of the operation, moving Longstreet further might result in poor location of Longstreet's force and block Ewell's potential shift to the right.

Lee had considered moving Ewell around town to the right of the line.[40] Oak Ridge and the city provided Federal forces with a typical Napoleonic obstacle that prevented cooperation between friendly flanks. Napoleon would maneuver in such a way as to force an enemy to place an obstacle (river, forest, or range) between its units. Employing a reserve with other front-line forces to attack one flank, Napoleon would rupture the defense and then move against the other flank and rear of the enemy.[41] Lee was now providing his enemy that same advantage if Ewell remained on the defense. Longstreet could be positioned on Oak Hill as a reserve, but exterior lines would make a defense impossible with the currently held ground. If Benner Hill fell to the enemy, a significant portion of Cemetery Hill would also be denied. Benner Hill then was central. It should be surrendered for the defense, and it should be retained for the offense. From it, Ewell could assault Culp's Hill, making Cemetery Hill "untenable."[42]

Moving Ewell to the right with his trains would take the remaining part of the day. Moving him to the right would take pressure off Cemetery Hill. Federal defending forces could fall back to Culp's Hill and Powers Hill maintaining a viable defense after the fall of Cemetery Hill itself. If the suspicion that Federal forces were strengthening on Ewell's flank proved true, those forces would be available for attack against Ewell as he shifted. Federal forces occupying Benner Hill would relieve pressure on Cemetery Hill, negating Cemetery Hill as the decisive point. Once freed up, these Federal forces could also move to correct the exposed southern Federal flank. Moving Ewell would allow the Federal commander time to either attack or correct that southern weakness. While Ewell moved, Longstreet would be frozen in place, unable to move on those roads needed by Ewell. Shifting Ewell was becoming a more complicated endeavor.

Once Lee decided to keep Ewell on the left, major generals Lafayette McLaws and John B. Hood would continue movement to directly behind Hill, in the vicinity of Herr's Ridge. Stuart had not yet closed, but would do so by the end of the day.[43] (Lee had been aware that Stuart was in the area since about 3 P.M. on July 1.)

Enemy Situation

Lee knew he had unexpectedly faced two corps during the day. Were these corps the other two not located from the June 28 report? Were they the two located near Middletown on June 30? Were they isolated from other corps? What of the other corps?

By nightfall Lee knew at least two to three enemy corps were present,[44] and by 9 A.M. the next morning (if not the previous night), Lee learned from Ewell that elements of the 12th Corps had closed from the east and that the 5th Corps, thanks to an intercepted note from a courier,[45] was closing by early morning on July 2 from the east. Late on July 1, Lee and Longstreet saw additional forces on what would become known as Little Round Top.[46] Sightings of other enemy forces arriving from the south would lead to the conclusion that at best only five Federal corps were present, and at worst at least six. When viewing the enemy line, four of the seven enemy corps could not be seen. With the remnants of two corps on Cemetery Hill, part of one extending toward the south, and part of one on Culp's Hill, significant enemy units remained unaccounted for. Meade was retaining a significant force either for reserves – or to conduct an attack.

Federal reserves would be placed to the rear of and accessible to anticipated areas for reinforcing defending units. Reserves would locate behind Cemetery Hill in a central location. The hills beyond Culp's Hill could hide a significant force to the west and south.

Reconnaissance yielded strength on the north and east side of Cemetery Hill and weakness to the south. Additionally, the Federal force had reinforced Cemetery Hill, "but was chiefly massed to his right, leaving much of the center and almost his entire left unoccupied."[47] As for defending units, the Federals seemed to extend from the apex for a short distance south and west along the Emmitsburg road,[48] where that flank was "in the air." The reconnaissance to the south also led to

the belief that the Round Tops were not occupied. Longstreet could move undetected to attack positions south and west behind the Peach Orchard on the flank on the enemy.

During the night the Federals vacated the area to the east and southeast of Wolf Hill. This withdrawal was fortuitous for Ewell. He and his commanders had initially argued that Cemetery Hill was more easily assailable from the west. (See Figure 7.) Ewell wished to remain in that area under the impression that they could easily gain Culp's Hill, which at the time was thought unoccupied. Once occupied, the slope of Culp's Hill to their immediate front was almost twice as bad as Cemetery Hill. Ewell, who had spent considerable time arguing to remain, now found himself in a more difficult position under changed circumstances. Because of the Federal withdrawal, Ewell could now secure Wolf's Hill with a minimum force and thereby gain access to Culp's Hill without a significant fight. Benner Hill could now be used safely as an artillery platform. Ewell now could reargue with Lee to remain, and once that issue was resolved, the operational decision was settled.

Mission Analysis Conclusion: Attack

Defense would mean partial withdrawal and surrender of initiative. Meade would surely concentrate and become stronger. Without Stuart, both intelligence and flank security would compound force inequities. Lee would have to divert infantry forces to perform security missions. Education had emphasized this need.[49] Just as Napoleon favored the offense,[50] Lee would continue the offense. As it was not possible to encircle enemy forces,[51] Lee would "attempt to dislodge"[52] them from their current defenses and "enable us to reach the crest of the ridge"[53] [Cemetery Hill] and pursue the retreating force. When the enemy situation is combined with the factors of terrain, a modified combined obstacle overlay clearly shows advantageous terrain for attacks.

While Longstreet would later argue[54]that the absence of Stuart was good reason not to hazard an attack, the best way to secure one's flanks without security forces is to make one's flanks less relevant when compared to the immediate, more pressing needs inflicted upon your opponent. A cautious, defensive-minded commander worries about his flanks to justify defense, while an offensive-minded commander makes those concerns less relevant.

On the other hand, if Lee attacked, the Federals would have to respond to his action, rather than seeking weakness to his defense. Lee could therefore protect his flanks and rear by attacking. What more intelligence could Stuart provide than what Lee already knew: The Federals offered an exposed flank in a location where Lee could achieve mass against a decisive point. From a theoretical perspective the situation and opportunity met most of the criteria for successfully implementing the principles of war, as they existed at the time.[55]

Battles never fully meet all educational guidelines. Perfect answers and perfect solutions never exist. Judgment is needed. Lee could not heed Napoleon's caution: "Never do what the enemy wishes for the simple reason is that he does wish it. Avoid the field of battle … where he is fortified and where he is entrenched."[56] Lee also knew he was too close to his enemy to maneuver. What other advantages could be gained by waiting? What circumstances could Stuart find that were more advantageous than those already present?

THE PLAN

Why did Lee specify one division behind another attacking from behind the Peach Orchard when there was room for divisions beside one another? Why was secrecy so important? Why did Lee consider moving Ewell to the right, then change his mind and keep him on the left? What was Hill's often-overlooked task?

After a review of the terrain, the enemy's current position and strength, and the friendly forces available, we find the answers are easily discernable. A brief tactical study of the battlefield framework regarding mass and the decisive point is necessary to explain Lee's intent.

Achieving Mass at the Decisive Point

All things being equal, combat power was determined by the number of soldiers available. More soldiers equaled increased mass. There are two ways to achieve mass on the decisive point. The first is for two forces to attack from the same general direction toward the same objective at the same time, and the second is to attack from two divergent locations toward the same objective at the same time. Both methods achieve the same level of mass on the objective.

Differences do exist between the two methods. Two converging forces are not within supporting distances initially. The attacking commander has to determine how to introduce his reinforcing forces. How does he position those forces to take advantage of any success of either of the converging forces? Security of two separated forces is also a negative factor in this method. However, diverging forces also require coordination between attacking forces. Are they sequential or simultaneous attacks? What benefits are derived by each option? The second method also places the defender's commander in a dilemma. He must consider how to commit reserves to opposing directions. His questions are, What is the enemy's main attack? In which direction do I send reserves? How many reserves? All or some? Each method has some inherent weaknesses and some inherent strengths.

Indicative to this study is that under the former method, the attacking unit and the defending one may be operating either on interior or exterior lines. Under the latter method, the attacker is operating on exterior lines, and the defender is operating on interior lines. With this condition, advantage must go to the defender on interior lines. Operating on interior lines was the preferred solution for Napoleon, Jomini, and other practitioners of the period.

Advantage can be regained for the attacker by achieving surprise. A flank attack executed unexpectedly, with focused mass, requires immediate and appropriate response from the defender. Any delay would negate the advantage of interior lines as insufficient time exists to reassess and move those reserves to the desired influential point on the battlefield.

Figure 8. Achieving Mass At Decisive Point – Two Cases

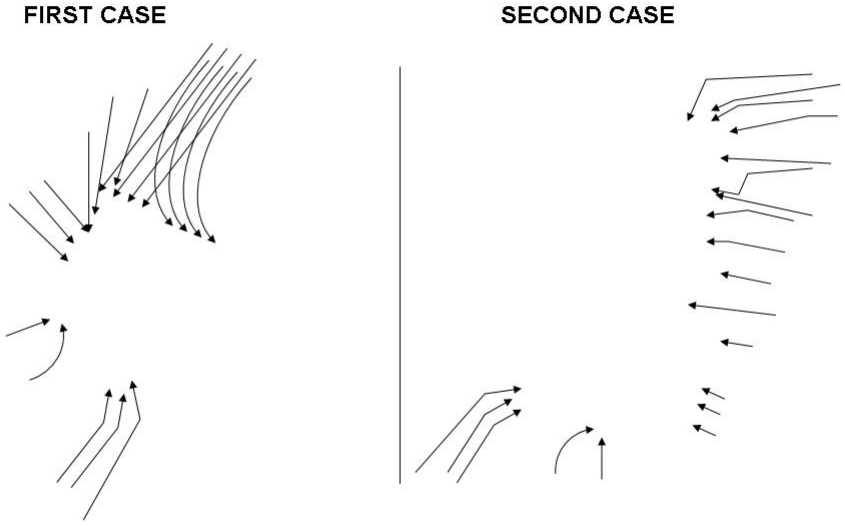


Figure 8 shows a theoretical approach to achieving mass at a decisive point. Units move along the arrowed axes toward the decisive point. The goal is to focus energy rather than have that energy dispersed. Given the same scale and distances of the two cases, the first case focuses energy far better than the second case. The converging units come closer together, supporting each other and more focused to the center.

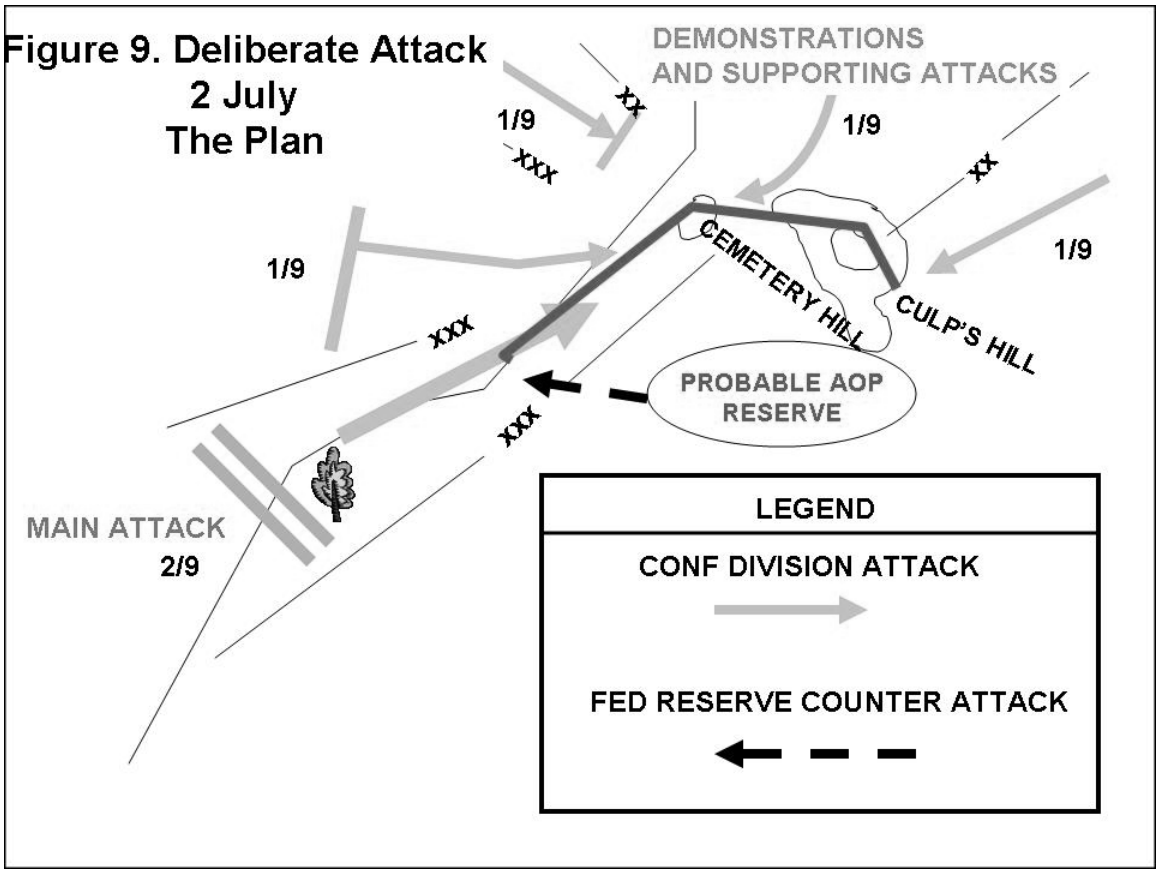
When Lee seeks to attack with a certain number of divisions to achieve mass on a decisive point, the actions require so much time and space. With an army of 75,000 soldiers, Lee would need at least 40,000 men to achieve mass.

The question arises, "What part of the battlefield is large enough to accommodate a majority of the Army of Northern Virginia, at least approaching 40,000 soldiers? What part of the battlefield, if lost or retained by the defender, would imperil or seriously weaken the enemy? Only one point can affirmatively provide the answer.

The Cemetery Hill complex, including the dominating Culp's Hill, evolved to become this decisive point. That evolution began with the culmination of the Confederate hasty attack on July 1, when Johnson was unable to seize the hills and Lee did not release Anderson's division until mid-afternoon. Adding to that was the Federal retention of Cemetery Hill on July 1 and its subsequent occupation of Culp's Hill. Of note, another factor in the evolution was that Meade, although he wanted to,[57] was unable to straighten his line early on July 2. Finally, Lee's retention of Ewell on the left, thereby maximizing exposure of Cemetery Hill, allowed Lee to mass two-thirds of his force against it. No other piece of terrain could support the massing of such numbers, nor be in such location as to force the Federals to "dislodge" from their current defense. When Cemetery Hill remained a salient, it became the decisive point. The defender would strengthen it, and reserves would be within supporting distance. The attacker would mass his forces to seize it. Both opponents contributed to the evolution of the decisive point.

Some historians differentiate between Cemetery Hill and Cemetery Ridge, concluding that Lee only wished to take the hill. The conclusion is unsound for several reasons. First, it was impossible for Lee, from his vantage point, to discern the difference between the hill and the ridge. Where does one end and the other begin? Second, if Lee's troops stopped short of the hill top, Federal cannons and infantry on the hill, along with troops on Powers Hill, Culp's Hill, and McAllister Hill, would still dominate the Confederates halted on the lower ridge. Lastly, these historians fail to realize the space needed for each division. The entire ridge and hill are needed for two or more divisions.[5857]

Figure 9 shows a sketch and brief outline to Lee's intended plan. Key terrain, including the hills and the Peach Orchard, are provided along with the "suspected" Federal deployments. Approximate unit boundaries between divisions and corps are located. Their corresponding combat power is specified. Each division represented approximately one-ninth of Lee's overall combat power. The figure shows the relationship of combat power and the applied direction of that power in the overall plan. In doing so, it becomes clear how mass was to be achieved and where that mass was focused (decisive point). At least six divisions would contribute in the initial assault. For the sake of clarity, Pender's division is not shown, as it was not part of the initial effort.[59] Also shown is the suspected Federal forward line of troops, the suspected reserve location, anticipated Federal counterattack in response, and general timelines for the assault phase.



Main Effort

Longstreet would make the main effort by marching undetected using the low ground to the south to a point where he could align his unit. (Figure 6 shows this low ground as well as Warfield Ridge to the south and west of the Peach Orchard, from which Longstreet was to advance.) Longstreet would clear the woods, deploy in lines for attack**,** move over the knoll of the Peach Orchard, and quickly assault the exposed flank of the enemy. Longstreet would have about twenty minutes to achieve the desired impact. In twenty minutes Meade would have to correctly assess the danger, decide and order a properly sized force, and move that force to within supporting distance of the attacked flank. All this presumes that those Federal forces are available. In twenty minutes Longstreet could march one mile from the Peach Orchard toward the objective. Longstreet would orient on the Emmitsburg road to ensure that he, with Anderson's assistance, could "dislodge" the force on Cemetery Hill. With approximately 20,000 soldiers available, when reinforced with Anderson's division, Longstreet was sized to hit the flank of one corps and, if counter-attacked by a single reserve corps, easily defeat it as well. If attacked by even a larger force, with Hill fixing the central corps, opportunities for Ewell would occur. To take advantage of the current situation Longstreet would need to attack as soon as possible in a massed formation with one division behind the other along a narrow front. Lee directed this unusual formation to ensure maintaining mass and directed energy along a narrow front toward the objective,[60] just as Jackson had done at Chancellorsville. This confirms the theory that flank security was not needed for Longstreet. He would be on the enemy's flank, and no one would be on his flank.

Longstreet would counter Lee's plan with a proposal to place his divisions parallel to the Emmitsburg road, where they would initially focus on seizing or at least controlling the Round Tops before moving further toward Cemetery Hill. While earlier reconnaissance to that flank yielded no strong Federal force near Little Round Top, the proposal challenged the results of the reconnaissance reports, or assumed that the Federals would post a strong force on or near Little Round Top. In reality, Longstreet's proposal was not a counter-proposal, but another method of achieving the same goal of attacking the flank of the enemy. Like Lee's, Longstreet's proposal was sound: This wider movement would control the Round Tops and cause the Federals to respond. But this wider movement would take more time, require additional intelligence, and incur increases risk. It would also, initially, increase the distance between the effort and Ewell's force.

Longstreet's proposal seemed to envision a more cataclysmic battle than Lee's. His proposal would be at cross-purposes to Lee's goal of "dislodging" the enemy. If Longstreet occupied the Round Tops and then proceeded toward the objective of Cemetery Hill, how could the Federals vacate their position along Cemetery Ridge? The Taneytown road, located just behind the Round Tops and one of Lee's envisioned Federal escape routes, would be blocked, so Longstreet's proposal would inhibit "dislodgement."[61] Lee ultimately rejected Longstreet's proposal, again focusing the force up the Emmitsburg road – and delineating his objective.

It was critical that Lee attack before Meade did. Longstreet would by-pass the Round Tops and the vegetation at their base. Unoccupied, they were neutral to the effort. Had they been occupied, Longstreet's move would have been seen, and once Longstreet began deployment for attack, he would certainly have been observed. Federals on the hill would also be available to strike Longstreet's flank during the attack. Now, once over the Peach Orchard, those hills would be irrelevant, by that time located to the rear of his force.[62]

Shaping Operations

Lee would leave Ewell on the left to demonstrate, securing Benner Hill and Wolf Hill to provide access to Culp's Hill. Ewell undertook this action with a skirmish line, when Major General Henry Warner Slocum, temporarily in command on July 1, injudiciously withdrew Major General Alpheus S. Williams' division from the area. In doing so, Ewell would fix defending forces on Cemetery Hill and Culp's Hill.

With an effective demonstration Ewell might draw reserve forces toward him rather than Longstreet. By conducting a simultaneous demonstration, rather than a sequential one, Lee would force the enemy commander to assess which attack was the main one. Assessments take time, and in that time Longstreet would achieve the desired impact. The plan puts the enemy commander in a dilemma. If the enemy over-commits to either wing, the other wing has an increased chance of success. If the enemy hesitates, Longstreet will be successful. Additionally Ewell would exploit any defensive errors to his front, creating another opportunity for Ewell to convert his demonstration to an attack.[63] If Lee had undertaken a sequential demonstration led by Longstreet, the enemy commander would commit his reserves toward Longstreet, and the chance of under-commitment or over-commitment is lost, with significant adverse results.

A conversion of the demonstration into a successful attack on Culp's Hill would make Cemetery Hill "untenable." That is to say, Cemetery Hill could not be occupied under existing conditions. The enemy would either withdraw or counterattack Ewell to force him off Culp's Hill.

Ewell would maneuver his forces to the best available terrain, but he would divide his forces in the face of the enemy. Ewell had fought hard to remain on the left and now had to deal with increasingly negative developments. Johnson and Early would bypass the areas of steep slope and attack over the best terrain available in sector. (See Figure 7.) Johnson would shift further left, and Early would remain in front of Cemetery Hill. Split by the town from those two efforts on

Ewell's left, Rodes would attack over the most gentle of slopes and the most open terrain, making his force susceptible to enemy fire.

Stuart's absence would force Ewell to dispatch infantry forces toward the east to protect the army's left flank. Ewell secured Wolf Hill easily, but now he would need to extend his forces even further east and farther from his battle. Wolf Hill was the key to accessing Culp's Hill. Had the Army of the Potomac retained Wolf Hill, Ewell would have had to attack up the steepest part of Culp's Hill. Ewell's forces would control the York-Hanover roads by securing the passes. Ewell would use the seizure of Wolf Hill to as much advantage as possible. Security on that flank was vital, but the diversion of combat power never works to advantage.

Hill would provide assets from Anderson's division to assist Longstreet, and his remaining forces would take advantage of opportunity to attack. Anderson's division, according to Hill,[64] covered the whole front occupied by the enemy, while Pender's division extended from Anderson's left to the seminary. Heth's division in the rear served as reserve. (This description of Anderson's relation to the enemy also identifies the Confederate expectations on the limits of the Federal line.)

In a confusing post-war account, Heth, a close friend of General Lee, reports an 1864 conversation in which Lee said that if Pender had remained on his horse half an hour longer the Confederates would have carried the enemy's position.[65] Lee's comment was confirmed by a second source[66] and has significant implications to the entire fight.

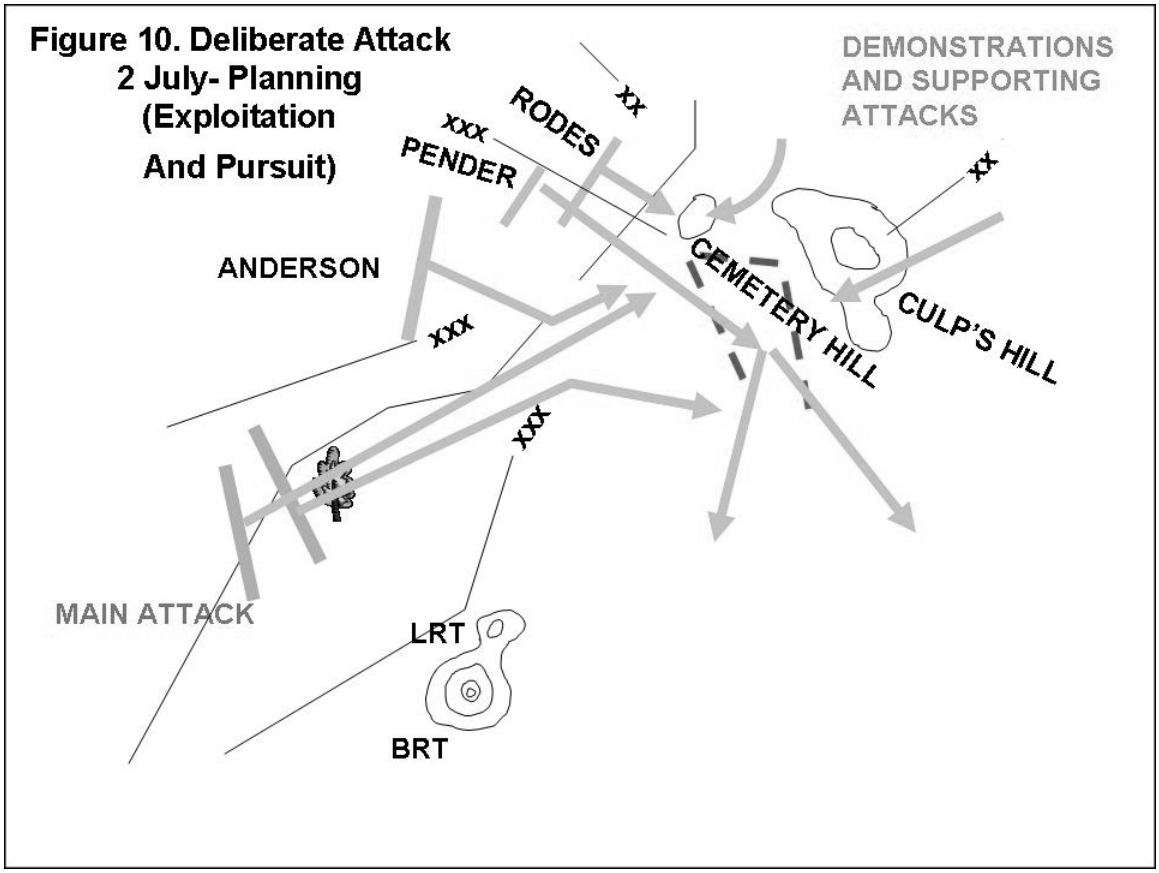
A review of missions for each element may help clarify an explanation. Longstreet was not sized to defeat the entire Federal force, nor was he given instructions for further actions after the seizure of Cemetery Hill. Ewell had similar restrictions on sizing and the seizure of Culp's Hill. Given Lee's stated goal of "dislodging" the enemy, what force was left to initiate and conduct the pursuit? The remnants of Hill's corps were the only force remaining for that task. Pender's Light Division, along with the uncommitted brigades of Anderson's division, comprised that force.

Some writers, unfamiliar with the military requirements following a successful attack, ascribe Anderson's inaction to faulty leadership or confuse "second wave" forces with exploitation and pursuit forces. Exploitation and pursuit forces are committed when conditions are right. A certain condition and timing element exist. Second waves follow the first wave with no pre-conditions with the orders previously given, such as when Hood was to follow McLaws in the intended plan. Because the second wave did not occur, some writers suggest it did not exist, or they find fault with Anderson and Hill for not sending the other brigades forward. The other obvious option was that the conditions for advancing exploitation and pursuit units had not yet been met. In considering Lee's above comment to Heth and Brigadier General Gabriel C. Wharton, an explanation can now be hypothesized that Lee wanted Pender's division to follow and pursue. Lee anticipated that he would issue that order within "half an hour," but the wounding of Pender prevented Lee from issuing that order.[67]

Referring to Figure 3 and the criticality of the pursuit as espoused by Napoleon, Frederick, and Jomini, Lee had to consider follow-on operations. He viewed the entirety of Longstreet's and Ewell's efforts to "dislodge" the enemy. He would not allow the Federals to escape unmolested to the protection of Washington. Instead, he would pursue. No other force was available on July 2 for this mission. Lee was well aware that potential existed for only limited gains without cavalry to pursue.[68]

Figure 10 shows the axes of advance for Pender's division. This unit, with the shift of Rodes' division around the town, was now masked from the enemy. It provided no immediate benefit to the defense where it was. Pender's division was now available to join the offense, once the conditions were met. Once the main effort and Ewell's force closed on their objectives and the Federals began their withdrawal from Cemetery Hill, Pender's force would proceed over Cemetery Hill, maintaining contact on the Baltimore pike or the Taneytown road, and keep pressure on the Federals through the night. Meade would never be able to reestablish the chain of

command, continue movement, or find and occupy defendable positions at night. Stuart and Pickett would be available for further pursuit and destruction on July 3.



Critiquing the Plan

Lee's plan was a good one, generally. The two keys to this attack are simultaneous demonstrations and secrecy for Longstreet's movement. Any early detection would result in the Federal left flank being refused and reinforced. Longstreet must crest the hill and continue up the road on that exposed flank. If Meade failed to react sufficiently, Longstreet would succeed. Overreaction would result in Ewell's success. Success by either Longstreet or Ewell would result in overall success – "dislodging" the enemy from Cemetery Hill.

Lee's plan achieved mass at the decisive point. It utilized multiple branches to achieve success. It relied on increased coordination and timing. It took advantage of any errors in judgment made by the opposing commander. Lee's allocation of combat power, including Pender's exploitation and pursuit force, was excellent. His elements were appropriately sized to accomplish their assigned tasks, based upon the terrain and reported enemy strength and location.

Lee's unified effort prevented the Federal forces from addressing one attack successfully, then using that same force to move against another attack. Unified effort from fixing forces was essential for the same reason. Lee's deployments had accounted for the defeat of up to six corps. Each element, even without Pickett and Stuart, was sized appropriately. The main effort comprised one-third of Lee's total force, the demonstrations with another third of his force converged on and dominated the objective, and the remaining force was available for commitment to the pursuit. Each element had a contributing task. Each element took advantage of favorable terrain. Each element took advantage of current and anticipated enemy weaknesses.

Success would be based on unified effort, with everyone's success predicated on the effort of flanking units to prevent the enemy from reinforcing. Teamwork was essential.

At first blush, it appears that Rodes should have moved around the town to deploy with his corps. The town split Ewell's corps. Hill's forces initially served to fix the enemy. Rodes could have reinforced Johnson's or Early's effort. However, moving Rodes would have forced Pender to man the front line to fix the enemy where Rodes had been, forcing Pender to assist in the initial assault and hindering the pursuit. Additionally, space was limited on the east side of the town. The steepness of Culp's Hill split Ewell's force, and Wolf Hill hindered the larger commitment of forces further to the left. Only in hindsight would reinforcing the right seem more important, but a pursuit force is essential to prevent a withdrawing enemy from reestablishing his defense. Little fault can be assessed on this point.

However, the plan could be improved. Lee's orders to Longstreet could warrant some criticism on a superficial level. "Partially envelope the enemy's left" is a force-oriented command. The attacker is drawn to find and attack that flank wherever it is. "Up the direction of the Emmitsburg road" is a terrain-oriented command. The attacker goes up the road regardless of where the enemy is located. While most writers focus on the first part of the order, both parts together could have sent Longstreet in two directions. Which part is more important? How much of a diversion is permissible to each part? If only one part of the plan is possible, which supersedes the other? In studying the execution of this command, its impact becomes evident.

EXECUTION

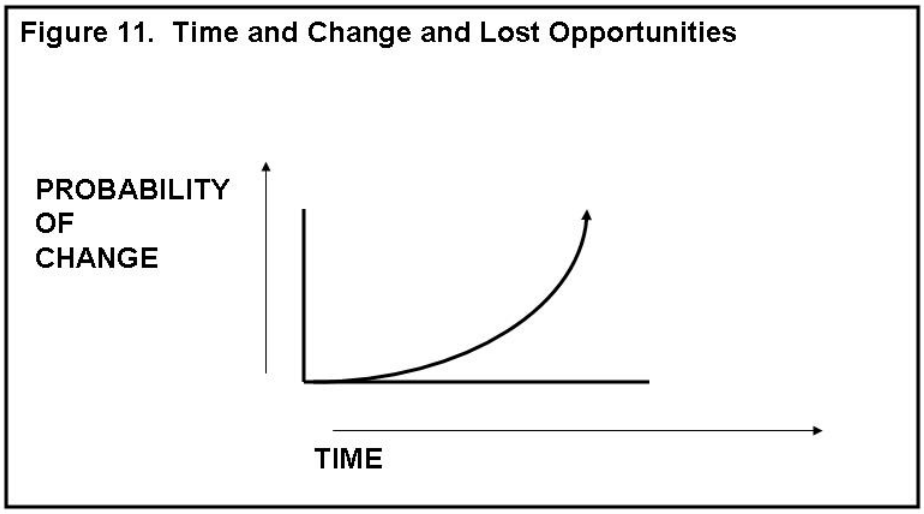
The March and Counter-March

Historians have well documented the delays along Longstreet's march and countermarch and speculated on why they occurred. For the tactician little can be added except to note another reason for Lee's increasing anxiety over the day. Longstreet was initially positioned to the center and rear of Lee's line and along the LOC. Longstreet temporarily filled the reserve role, until Lee determined his next action. Anderson could now be released from reserve duty to rejoin Hill. As in the discussion concerning Figure 4, as Longstreet moved toward his attack position in the wood line, masked by the knoll of the Peach Orchard, but lacking cavalry to recon, screen, and provide intelligence, his movement was more easily detected. Longstreet's flanks were more exposed to enemy attack. Although Anderson moved into position around noon to close the gap between Longstreet and the main body and refuse his flank, the gap remained at least one and three-quarter miles to four miles long during Longstreet's march. Hill's flank could be exploited by an attack. The longer Longstreet remained detached, the more exposed he was. During the entire movement, Lee would have a very small reserve.

On the other side of the battlefield, given the isolation of his two divisions caused by the town and the low ground between Benner's Ridge and Oak Ridge, Ewell was also open to enemy attacks. Once the attack began, any enemy offensive plan would be curtailed to respond to Lee's attack, but time for executing the march had to be kept to a minimum. Secrecy not only protected Longstreet from enemy action, it also increased the level of surprise, once the attack began.

Figure 11 shows the relationship between time and change. When exposed to time, change is not a linear progression but an exponential one. Commanders can change intent, subordinates can change situations, reality and perception can change. Opportunities for maneuvers such as flank attacks and extended-distance maneuvers open and close quickly. When Lee began his planning phase, the opportunity was open, but how long would it remain so? Even during the extended march, Longstreet believed the enemy was still along the Emmitsburg road.[69] But for Lee, growing anxiety would be a normal response.[70] So during the march period, both of Lee's flanks were somewhat exposed, his reserves were moving away from the main body (Heth's division

remained in the rear but could only provide limited assistance to any Federal action), his cavalry had not yet closed, and the enemy had sufficient forces in the area to either defend or attack (and may have had a large and growing attack force masked by the hills).



Some writers have suggested that Lee should have allowed Longstreet to maneuver around the Round Tops to launch an attack from the rear. However, that plan would have displaced Longstreet from Hill. It would have almost tripled the distance Longstreet had to cover exposing both he and Ewell to attack. Furthermore assuming that he could find roads and routes without cavalry, and that security could be maintained, the time required would have tripled as well. Thus his vulnerability to Federal response also increased.

Although the benefit of this plan was potentially greater, since it required more distance from the main body, the risk was unnecessarily high (a flank was already exposed) and the time to implement was unavailable. By the time Lee and Longstreet detected Federal forces occupying the Peach Orchard,[71] Longstreet's movement to the south had already been detected. Movement further south and east would only have invited enemy attacks. It would have taken longer to implement that movement, given the exterior lines, than it would take the Federals to move to defensible terrain to block the action. Of course, the greater the distance and change in direction of attack, the less chance that Ewell could work in unison with Longstreet. Longstreet's unsuccessful attack would work to the detriment of the Confederates. If Hood was stopped, he would have been significantly isolated for enemy counterattacks. If Hood was stopped, the enemy's overall position would be strengthened. Meade would be on tighter interior lines, discouraging withdrawal. Lee's intent was just the opposite – to "dislodge" the enemy.

Sickles' Movement

Deployment of Major General Daniel E. Sickles' corps forward to the Peach Orchard is associated with a long list of pros and cons. Well-documented timelines and accounts can lead to logical conclusions. Writers and enthusiasts have certainly identified many of the implications.

While Sickles may have brought his desired change to the attention of Meade a number of times without receiving his desired command emphasis, three key points need to be made, bearing in mind that one can hypothesize both the advantages and disadvantages of his movement into catastrophic results for both combatants.

Discussions do not adequately weigh military considerations. From a tactical perspective on the positive side, Sickles' forward movement gave operational depth to the line, allowing reinforcements to move in front of the general line of defense rather than to the rear of the line, where the presence of logistical and administrative elements would have added new uncertainty to the outcome. On the negative side, following orders in the military is paramount,[72] and Sickles knew he was moving from the area designated by Meade.

Second, in moving forward, Sickles not only endangered his command, but he placed other units that had come to his assistance in added danger. The brotherhood of arms allows for an expectation of assistance if needed when one is doing his duty. However, one cannot demand assistance when one is violating orders. Sickles, by moving forward, both disobeyed orders and placed other units in danger. If there are "mortal sins" in battle, this is one of them.

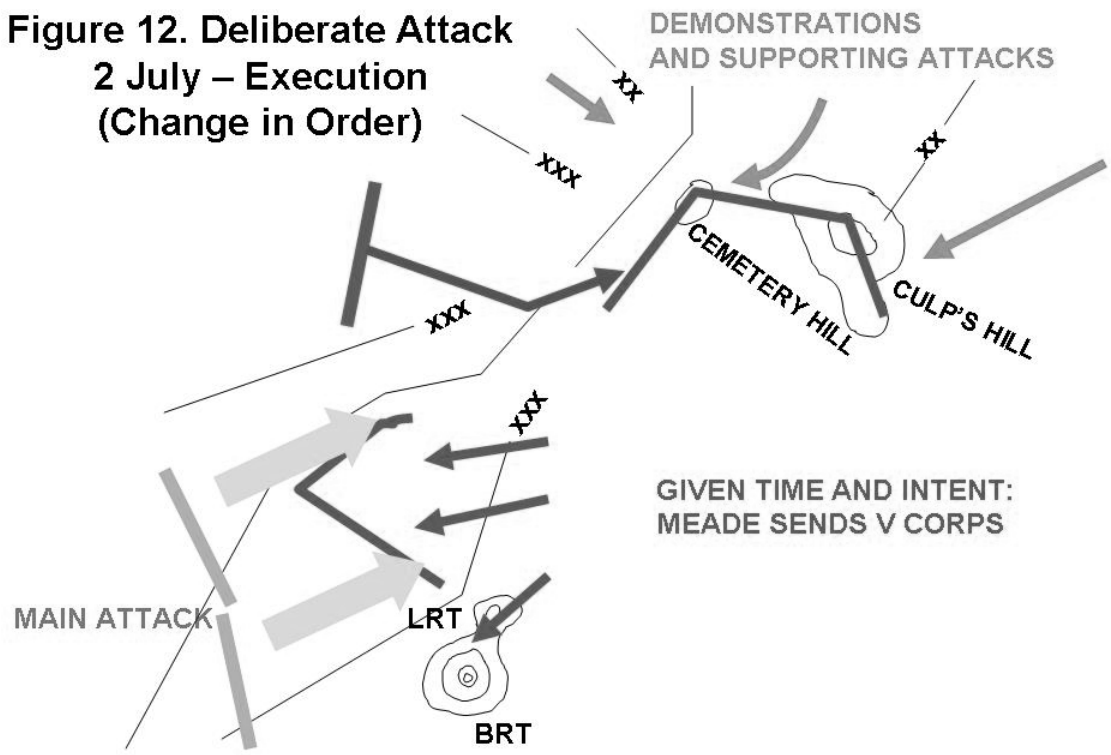
Third, recall that Meade had considered a "strong and decisive attack" on his right, retaining the 5th Corps for that task. If Meade continued with that intent, the 5th Corps would have been unavailable to respond quickly to Longstreet's assault. Sickles was unaware of this intent, and his movement would have been disastrous to himself and the Federal army under those conditions. By chance alone, the Federal left would be saved on this day, because Meade decided not to attack.

Attack

With the march delays over,[73] the erroneous withdrawal of Federal cavalry from the flank allowed Longstreet to move further undetected than he would have otherwise. One can credit Colonel Hiram Berdan's Sharpshooters, Brigadier General Gouverneur Warren, or the absence of cavalry, but once Longstreet was detected, the clock began ticking. Longstreet had about twenty to thirty minutes from when he was detected to impact. To his credit, Meade immediately responded by sending the entire 5th Corps.[74] Meade knew that any major attack from an unexpected direction would not be a diversion – it would be the main effort, and it would entail more than a single division. Sending at least a corps would be appropriate. Longstreet's psychological impact was negated; his physical impact would now be lessened as a result.

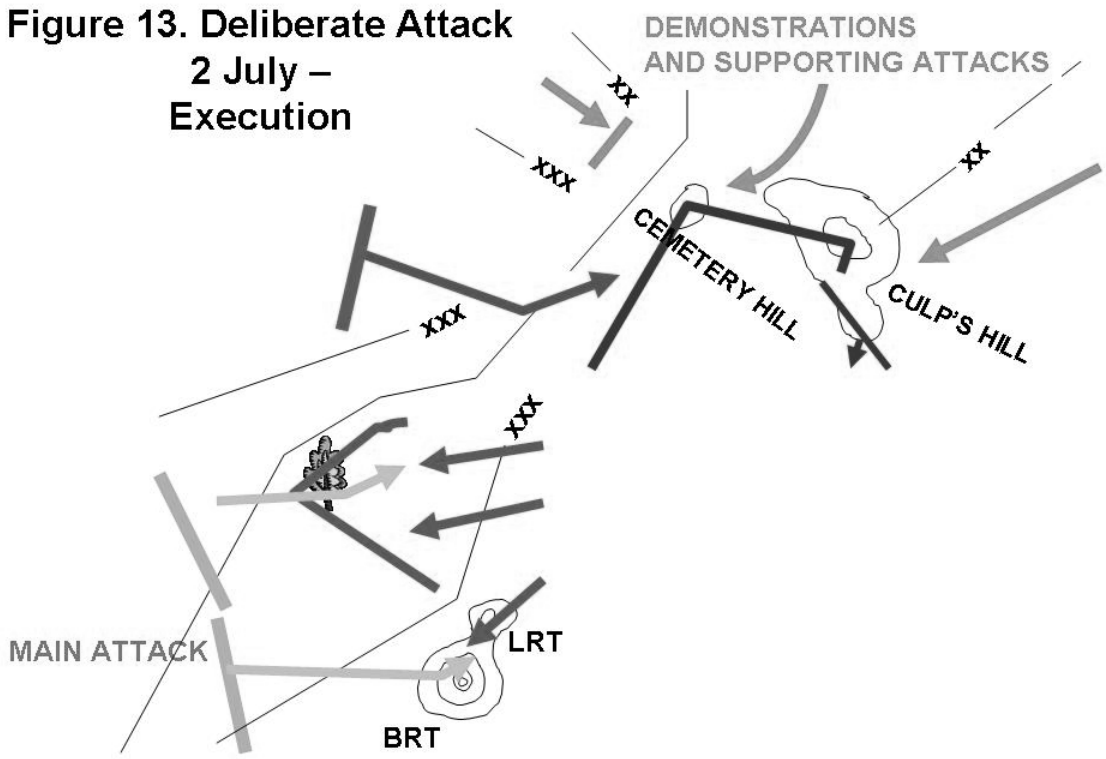
Lee joined Longstreet's attack force for final directions.[75] Lee may not have directed Hood to redeploy toward the right, but he did witness it, and therefore, approved of the shift to the right. Longstreet, facing the unexpected appearance of Sickles in forward positions, engaged in an artillery duel, surrendering any element of surprise and providing additional time for Federal deployment.

Even during this extension to the right, Longstreet initially intended to launch both divisions simultaneously,[76] but Lee directed a change with Hood to open a sequential attack by division[77] and remain oriented on the road.[78] Longstreet still intended to bypass the Round Tops, remaining tied to the road. Figure 12 shows Lee's new intent with the direction of intended attacks. With Sickles deployed forward, Longstreet had to remain along the ridge about 900 yards to the rear of the orchard. This new line, shifted south and east, now brought the Round Tops into new relevance. The Round Tops dominated Sickles' flank, the orchard, and Longstreet's entire effort. Federal forces in the vicinity encouraged Confederates further from the intended fight.



The continuing artillery duel and further reconnaissance by Hood on the right resulted in further diversion of combat power. Erroneously believing the entire line from the orchard to the Round Tops was occupied, Hood changed direction of his advance. The shift caused brigades to enter the battle sequentially, with some effort diverted to the Round Tops.[79] The re-direction forced Longstreet to hold McLaws and allow the situation to develop. Figure 13 shows the new axis of advance. Hood's brigades now had to reinforce weakness and seek gaps rather than overwhelm. McLaws would now commit the right side of his division while holding the left side in a further effort to draw Federal power away from the Peach Orchard.[80] Once the orchard was sufficiently weakened, McLaws' left flank would attack toward Cemetery Hill and rejoin the attack with Anderson's division. Anderson was to join in with three, if not four, brigades.

Ewell's demonstration immediately began with artillery. But without the direct threat of infantry to that side, Meade could withdraw additional forces. Much of the 12th Corps redeployed, leaving weakness which would be exploited by Ewell's later attacks. While some 12th Corps elements were misplaced, some were available, but not needed to reinforce the left.



Critiquing the Execution

Lee's initial shift of Hood and the execution of a division attack by echelon was sound. With Hood attacking first, Lee increased opportunities. If Hood found the Federal flank, the Federals would have to vacate the Peach Orchard without a fight. If Hood was blocked, he would divert Federal combat power away from the Peach Orchard, thereby making McLaws' attack easier. The diversion was well intended but began the separation of both Confederate wings.

However, the shift of Hood's division and the subsequent deployment of Federal corps, divisions, and brigades had a significant impact on the intent. Confederate combat power was being dissipated far from the decisive point. So much power was diverted at such an extreme direction, that most Federal writers erroneously describe the attack solely as a flank attack, without identifying the objective of Cemetery Ridge/Hill. This ignorance reinforces the belief that the Rounds Tops were more relevant than was intended.

Which part of Lee's orders was more important? Was finding a flank to assail more important than focusing effort close to Cemetery Hill? Longstreet knew the answer, but Hood did not. An unclear order, as it moves down the echelons, can result in diversion from intent and a resulting shift of energy. Longstreet adjusted his positions to accomplish both parts of the order, but he still had to tie into Anderson. While the shift to the right was well intentioned, it created an environment where a subordinate could make a further adjustment. Hood diverted brigades in search of the flank. His initial diversion occurred so rapidly that other brigades became mal-positioned. McLaws had to refocus his attack back up the road and then, responding to the Federal counterattacks, had to redirect other units (Brigadier General William T. Wofford's brigade) away from the objective. To the corps commander, up the road was more important, but

to the lower level, the flank was more important. The cumulative impact of Lee's shift and Hood's diversions caused the result.

The attacks devolved into a series of brigade efforts rather than a coordinated one. Individual brigade commanders exercised judgment in directing their energy. Gaps between units appeared and were exploited by the Federals. Federal corps-level attacks were no longer needed. Confederate advances could now be blunted with Federal divisions and brigades and finally even a regiment. A sequential attack requires judgment by each succeeding commander. Commanders evaluated their flank units, found them wanting, and did not advance as desired. Less aggressive attacks allow a defending enemy to focus on more aggressive attacks. The cumulative effect was that advancing units were stopped sequentially. Like breaks in a line of falling dominos, the ones left standing had no impact.

While Anderson has drawn criticism for not attacking with all his brigades, Hill's report specifies that Anderson was to cooperate with as many brigades as could join in with Longstreet's troops as he advanced. Hill goes on to identify those three brigades. Anderson clarifies to say that his attack was to be guided by the advance of Longstreet's divisions. As Longstreet's divisions moved north, more of Anderson's brigades were to advance. Given that Longstreet's divisions were halted, not all of Anderson's brigades advanced, in strict compliance with his instructions. Hill and Lee watched this attack culminate and could have issued additional instructions to Anderson's brigades had they thought prudent.

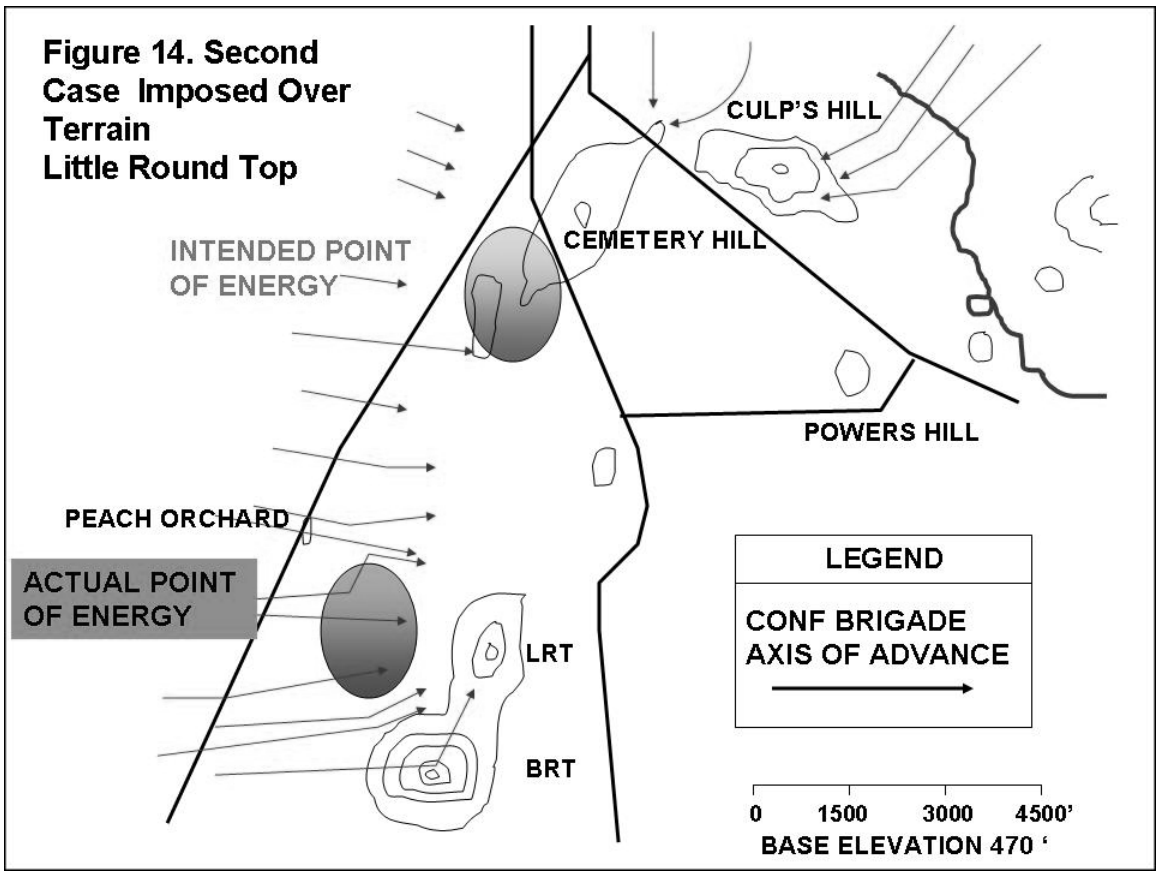
With Longstreet's lack of success, the only chance of success would fall to Ewell, who was originally assigned as a demonstration. The diversion cut Lee's chance of success, and it now rested not with the main effort but with a shaping effort, which was unsupportable. This condition is not a recipe for success. Ewell's demonstration had to be simultaneous for it to contribute to Lee's intent. It was hours late and provided a sense of security for Meade on that flank, permitting additional forces for Meade's counterattacks. Ewell achieved some limited success. Johnson secured a lower shelf on Culp's Hill and Early fought to the top of East Cemetery Hill. Each force was unsupportable, and exposed flanks caused both commanders to divert combat power for flank security. Rodes did not advance significantly. While he fixed some enemy forces to his front, the lack of success permitted other enemy forces to be used to reinforce other parts of the battlefield at key times. Brigadier General John B. Gordon's brigade had to remain between Early and Rodes for security and could not reinforce the success of Early's other brigades. Colonel Samuel Carroll's brigade and other Federal units were allowed to shift from Rodes' sector to successfully attack and push Early off Cemetery Hill. Rodes' lack of advance adversely impacted units on both his flanks, collapsing the effort in both directions.

Once Ewell launched his attacks, he achieved limited success, but diverting combat power for security tasks hindered any immediate reinforcement both in Johnson's front against Culp's Hill and Early's front against Cemetery Hill. The 6th Corps arrived on the battlefield, but was not needed immediately and became Meade's reserve.

When Lee criticized his troops' lack of coordination, he was not, as writers often assume, referring solely to time. He was not only referring to Ewell's attacking later than Longstreet. He was also critical of the direction of attack. Of Longstreet's eleven attacking brigades, only one partially attacked Cemetery Hill, Brigadier General Ambrose Wright's brigade of Hill's corps). The other brigades, while killing many of the enemy, were not contributing to the desired goal. So disjointed were these attacks that many writers describe the effort as brigade echelon attacks rather than the intended division echelon attacks. Only Anderson's brigades were designed to attack in echelon. So misdirected were the efforts that many Federal participants thought this attack was a flank attack directed against the Round Tops, missing the desired orientation up the Emmitsburg road and the significance of Cemetery Hill altogether.

Referring back to Figure 8, the second case shows what dispersion occurred. The first case depicts Lee's intended plan. Figure 14 uses the second case using brigade axes of advance,

properly sized, turned and imposed over terrain to show the diversion of combat power from Cemetery Hill toward the Wheatfield.



Other fleeting opportunities open and close so rapidly. A combination of delays earlier in the day, the lack of pressure from Rodes, nightfall, and the wounding of Pender all prevented Lee from following up Wright's small force, which had successfully occupied the center of the Federal line. The Confederates ran out of energy and daylight on July 2.[81]

To that end, some alternative solutions deserve consideration. Longstreet should have moved Hood to the left of McLaws rather than to the right. A simultaneous attack by both divisions with McLaws attacking the Peach Orchard directly and Hood moving around to strike between the Federal 3rd and 2nd corps and working more closely with Anderson would have forced the fight from the Wheatfield toward Cemetery Hill. Lee's attack was also directed at Meade's mind. Any effort which would result in battle closer to Cemetery Hill would stress Meade. A significant engagement near the Copse of Trees on July 2, coupled with a forceful attack by Rodes and Early would similarly have put pressure on Meade.

On July 2 Ewell "fought his plan, rather than his enemy." Once Ewell realized that Culp's Hill was occupied, his continued fight to remain on the left was unwarranted. His terrain was growing increasingly disadvantageous and his enemy was growing stronger on that flank. His corps was now acting as three separate divisions rather than one corps. He would have been wise to change his advice to Lee. Know when to cut your losses is the lesson.

While seizure of the Round Tops would have resulted in a shift of battle, Longstreet and Ewell were no longer working in unison, even if Ewell launched simultaneously. A fight over the Round Tops would have required McLaws to shift southeast rather than northeast, creating unsupportable gaps between Longstreet and Anderson. Timing of the demonstration would have

been different. If the Rounds Tops had been the target for the main effort,[82] the demonstration would have initiated the attack to keep Federal reserves as far from the main effort as possible. Mass against a single decisive point would be lost. The timely arrival of the 6th Corps would have resulted in a significant battle for that terrain, but in the end, Confederate wings would now be split with even more extended exterior lines and even tighter interior lines for the Federals.

CONCLUSIONS

The control of events over time is the true test of ability. Once a sequence of events is set into action, it is difficult to control. Being too late can be as detrimental as being too early. Unrelated events spin uncontrolled, confusing the participants and baffling the observer.

Lee had used certain patterns in previous engagements. In Lee's previous battles, he remained focused on weakened enemy units. Once he made contact with a specific unit, he sought to continue pressure on that same unit. Now, that weakened force was entrenched and reinforced -- no longer open to exploitation. In the past Lee had massed most of his force against a limited portion of the enemy, virtually ignoring other enemy elements. On July 2 he was taking on a significant portion of undamaged Federal forces on exterior lines.

The deliberate attack for July 2 was well- planned, for the most part. Better coordination between wings was essential. That responsibility rests with Lee. Focus on the objective rests with his corps commanders. Lee did not seize his objective and had to settle for limited gains.[83]

Much criticism is leveled against Stuart, Longstreet, Anderson, Hill, and Ewell for July 2. Lee does not, yet he was responsible for coordinating the wings. His knowledge of Hood's shift inferred other adjustments would be needed. While Lee actively supervised some change in effort in Anderson's division,[84] he should have exercised more active supervision all along the center of his line.

Limited successes, like those during the hasty attack on July 1, resulted in the belief that continued effort might be successful. The seizure of the Peach Orchard, the lower crest of Culp's Hill, Early's temporary seizure of East Cemetery Hill, and Anderson in the center of the Federal line, would encourage Lee to try another attack. As Lee moved toward another decision point on the evening of July 2, another assessment of enemy, terrain, and friendly troops was needed. However, Lee's condition was worsening. His force was becoming out of balance with the demands of certain tactical missions. This deliberate attack damaged Hood and McLaws and further weakened Early. Added to the damage to Heth, Pender, and Rodes incurred by the hasty attack, further offensive efforts became problematic, even with the addition of Pickett and Stuart.

With Stuart and Pickett rejoining the army, and with the assumption that the Federals had now concentrated, Lee could now consider maneuver to defendable terrain and attempt to force Meade to attack him. But whatever advantages in combat power, terrain, or situation that had existed at the beginning of July 2, no longer existed.

Lee's opponent had again fought well. Unlike previous battles, the Federals did not recoil from a strike, but rather counterattacked. Lee's opponent had skillfully shifted forces during the course of the battle. In the past, his opponent had seemed to hold on to a plan to the point of defeat. Now, he was responding to Lee's efforts decisively by "tailoring units." Tailoring occurs when subordinate elements from other units are dispatched and temporarily fight with other units. Divisions from the 2nd Corps fought alongside other corps. Brigades were intermixed as well. Indeed, even corps were combined while the battle raged. Lee had predicted that Meade would not make an error, and Lee had been right.

These developments in the Federal leadership were significant. Lee's opponent now had the capacity not only to absorb blows but to deliver them as well. While Federal soldiers had fought well in the past, their leadership had been found wanting. The rotating command of the Federal

army and the corps had been dysfunctional, because of a lack of ability. However, Lee was witnessing the birth of a worthy opponent under its newly capable, flexible leadership.

Gettysburg was essentially a simple battle. Despite all the details, intricacies of timing, and unexpected turns, both commanders remained focused on the decisive point. They maneuvered their force to control it. Lee had to take it, and Meade had to prevent it. As Lee approached his next decision for July 3, one thing was clear: This new commander of the Army of the Potomac was different than his predecessors.

Tomorrow would be another day.

Notes

[1] Clarence Buell & Robert Johnson, ed., *Battles and Leaders of the Civil War* (Edison, NJ: Castle Books, Reprint, no year), 3:339.
[2] Russell F. Weigley, *The American Way of War* (Bloomington: Indiana University Press, 1973), 81-87.
[3] Michael Phipps, "Mahan at West Point: 'Gallic Bias' and the Old Army: The Subconscious of Leadership at Gettysburg," *Leadership in the Campaign and Battle of Gettysburg*, (Gettysburg, Pennsylvania: Gettysburg National Military Park, 2002), 8.
[4] Antoine-Henri Jomini, *Art of War*, trans. G.H. Mendall and W.P. Craighill (Westport, CT: Greenwood Press, 1974), 68-69.
[5] Department of the Army, *U.S. Army Field Manual 3-0, Operations* (Washington, D.C.: Government Printing Office, 2001), 2-2 - 2-5.
[6] Ibid.
[7] Jomini, 69, 178.
[8] *U.S. Army Field Manual*, 2-2 - 2-5.
[9] Peter Paret, ed., *Makers of Modern Strategy* (Princeton: Princeton University Press, 1986), 101.
[10] Silas Casey, *Infantry Tactics for the Instruction, Exercise and Maneuvers of the Soldier, a Company, Line of Skirmishers, Battalion, Brigade or Corps D'Armee*, (Dayton, Morningside House, Inc., 1985), Vol. 1, pp. 66,79, and 120, and Vol. 2., 71-74.
[11] Larry H. Addington, *The Patterns of War Since the Eighteenth Century* (Bloomington: Indiana University Press, 1984), 40. Weigley, 83.
[12] Weigley, 84.
[13] Paret, 154.
[14] Ibid.
[15] *U.S. Army Field Manual*, 5-7. Current military thought clarifies the uncertainty of selection of the decisive point by an evolutionary development in the art of war. The U.S. Army now identifies the center of gravity, those "characteristics, capabilities, or localities from which a military force derives its freedom of action, physical strength, or will to fight." A decisive point then is related to this center of gravity. It provides access to the center of gravity. It provides advantage over the enemy and greatly influences the outcome. The decisive point may be force-oriented or terrain-oriented. Without Stuart, Lee had no continuing intelligence regarding exposed enemy forces other than those immediately facing Lee. Without intelligence, a force-oriented decisive point is difficult to identify, monitor, and execute. In *Art of War* (p.89), Jomini states that the greatest talent of a general is to choose the objective points of maneuver. Today's relationship between center of gravity and decisive point remained undeveloped in Jomini's time.
[16] Paret, 133.
[17] Ibid., 103.
[18] Ibid., 152.
[19] Jomini, 140.
[20] Ibid., 206-207.
[21] General Burnod, *Napoleon's Maxims of War*, trans. G.C. D'Aguilar (David McKay of Philadelphia: Philadelphia, 1902).
[22] Today, a smaller unit can surround a larger one if it is equipped with sophisticated weapons and procedures that multiply each soldier's impact. Lee's soldiers and weapons capabilities were comparable to his enemy; no multipliers existed. The U.S. Army has further evolved when making these types of calculations to determine how to approach a battle. Mass is not determined by numbers of soldiers, but by impact of their weapons. Rather than calculate how many weapons (and therefore soldiers) are needed to have a specific impact on the enemy, the army now calculates "massing effects" on the enemy. With precision targeting and delivery, calculations focus on how many of the enemy are to be affected and what weapons are needed to achieve that result.
[23] A.L. Long, *Memoirs of Robert E. Lee* (Secaucus, N.J.: The Blue and Grey Press, 1983), 274.
[24] Glenn Tucker, *Lee and Longstreet at Gettysburg* (Dayton, Ohio: Morningside Bookshop, 1982), 96.
[25] Offensive operations that retain the initiative are more conducive to efficient use of a smaller force. Not all offensive operations retain the initiative. The defender can retain the initiative under certain conditions, such as when executing an ambush or setting a "trap."

[26] Long, *Memoirs of Robert E. Lee*, 277; James Longstreet, *From Manassas to Appomattox*, (Bloomington: Indiana University Press, 1960), 358.
[27] Dennis Hart Mahan, *A Complete Treatise of Field Fortifications* (New York: John Wiley, 1836), 9-10. Jomini, 69.
[28] *U.S. Army Field Manual*, 4-23.
[29] U.S. War Department, *The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies* (Washington D.C.: Government Printing Office, 1881-1891), Series 1,27(2):308. [Hereafter cited as *OR*]
[30] *U.S. Army Field Manual*, 7-12.
[31] DaCapo Press, ed., *The Annals of the Civil War* (New York: DaCapo Press, 1994), 414.
[32] James I. Robertson, Jr., *General A.P. Hill* (New York; Random House, 1987), 205.
[33] George G. Meade, Letter to G.G. Benedict, *New York Times*, 11 August 1886.
[34] Jomini, 139.
[35] *OR*, Series 1, 27(2):308**.**
[36] Weigley, 107-115.
[37] Paret, 133.
[38] James Longstreet, *From Manassas to Appomattox*, 357.
[39] Lafayette McLaws, "Gettysburg," *Southern Historical Society Papers* (Oakman, Alabama: H-Bar Enterprises, 1997), 7:68.
[40] *OR*, Series 1, 27(2):446.
[41] Paret, 133.
[42] *OR*, Series 1, 27(2):446.
[43] Terry L. Jones., ed., *Campbell Brown's Civil War* (Baton Rouge: Louisiana State University Press, 2001), 206.
[44] Long, *Memoirs of Robert E. Lee*, 278.
[45] OR, Series 1, 27(2):446. Harry W. Pfanz, *Gettysburg and Culp's Hill* (Chapel Hill: University of North Carolina Press, 1993), 86.
[46] James Powers Smith to Major Campbell Brown, no date, Vertical File V-5 James Powers Smith, Gettysburg National Military Park Library.
[47] A.L. Long, Letter dated 5 April 1876, *Southern Historical Society Papers* (Oakman, Alabama: H-Bar Enterprises, 1997), 4:67.
[48] *OR*, Series 1, 27(2):358. *OR*, Series 1, 27(2):318.
[49] Dennis Hart Mahan, *An Elementary Treatise on Advanced-Guard, Outpost and Detachment Service of Troops and the Manner of Posting and Handling Them* (New York: John Wiley, 1836), 65.
[50] Paret, 133.
[51] Writers and enthusiasts often correctly comment on the extended exterior lines that Lee used in this battle. Assuming that Lee could seize the unoccupied Round Tops, the area south of Power's Hill to Wolf Hill, then take up his current line, Lee's perimeter for an encirclement would be over 19 miles long, versus the 11 miles already found to be critically long.
[52] *OR*, Series 1, 27(2):298, 308. In Lee's immediate note to President Davis on July 4 and subsequent outline dated July 31, Lee consistently used the word "dislodge" as his intent, rather than "surround," "destroy," or other words to infer a single engagement at that location. "Dislodge" means to force the enemy from its current location and implies a subsequent engagement of continuous pursuit would follow the current operation.
[53] *OR*, Series 1, 27(2):308. Lee was clear on his intent to dislodge and on his objective. He described the ridge as both high and commanding and held by the enemy. The only terrain that meets the above criteria during Lee's planning process was Cemetery Hill. The Round Tops would only become occupied in the execution phase.
[54] *Annals of War*, 434.
[55] Jomini, 70-72.
[56] Albert S. Britt, III, *Jena Campaign Studies, Critical Analysis in the Study of Military History* (West Point: United States Military Academy, 1973), 107. Burnod, *Napoleon's Maxims of War*, Maxim # 30.
[57] *OR*, Series 1, 27(3):486. Meade expressed a desire to make a **"**strong and decisive attack on the right" to relieve the pressure on the salient of Cemetery Hill.

[58] A standard Confederate division requires about 1,200 yards for a frontage, which is the distance from the current Cyclorama Center to the Pennsylvania Monument. Twelve hundred yards is the entire length of the ridge. The ridge would only be big enough to accommodate one division. The limited "Ridge Objective" is simply too small for this larger force. Speculation also exists that Lee's attack was directed against the lower portion of Cemetery Ridge, where the Pennsylvania Monument now exists, rather than against Cemetery Hill. That area offers no tactical advantage. It rests in low ground dominated by the Round Tops, Powers Hill, and Cemetery Hill. Its lower elevation was hidden to Lee by masking and thus posed the obvious challenge of directing forces to occupy an area which could not be seen, identified, and specified. How does one move to an area and direct other forces blindly?
[59] *OR*, Series 1, 27(2):308. In his reports, Lee states that Hill had a mission to "avail himself of any opportunity that might present itself to attack.
[60]" McLaws, 72-73. Longstreet expected McLaws to attack as soon as he got into position. Because General Hood was marching behind McLaws, Longstreet did not allocate time for Hood to deploy to either flank. Hood was to follow McLaws.
[61] On the morning of July 3, Longstreet would again seek to move around the Round Tops endangering the Taneytown road. Lee would order the halt to that endeavor. It becomes unclear whether Longstreet ever grasped the nuances of Lee's plan. Ewell apparently understood the concept of not blocking the Federal escape routes when he did not seize or threaten the Baltimore pike either on July 2 or 3. Ewell would turn the back of his brigades on July 3 to the usually lucrative and vital target of attacking the enemy LOC.
[62] Longstreet, 370.
[63] OR, Series 1, 27(2):446.
[64] Ibid., 608.
[65] Henry Heth, "Letter," *Southern Historical Society Papers* (Oakman, Alabama: H-Bar Enterprises, 1997), 4:154.
[66] William Hassler, ed., *The General to His Lady: The Civil War Letters of William Dorsey Pender to Fanny Pender* (Chapel Hill: University of North Carolina Press, 1965), 262. Lee tells Wharton, "And we would have succeeded had General Pender lived."
[67] The addition of assistant division commanders and executive officers for brigades and more detailed planning sequences with decision support templates allows for continuous command and control uninterrupted by the loss of a single man.
[68] Long, *Memoirs of Robert E. Lee*, 287.
[69] *OR*, Series 1, 27(2):358.
[70] A.L. Long, *Southern Historical Society Papers*, 68. I. Scheibert, Letter dated Nov. 21, 1877, *Southern Historical Society Papers* (Oakman, Alabama: H-Bar Enterprises, 1997), 5:92; Long, *Memoirs of Robert E. Lee*, 281-282.
[71] Long, *Memoirs of Robert E. Lee*, 282.
[72] John Gibbon, "Another View of Gettysburg," *North American Review* (June 1891): 704-713.
[73] *OR*, Series 1, 27(2):308.
[74] *OR*, Series 1, 27(1):592.
[75] At least eight references exist that state that Lee joined Longstreet at the beginning of the attack: John C. Haskell, "Letter to John W. Daniel," *Supplement to the Official Records of the Union and Confederate Armies* (Wilmington, N.C.: Broadfoot Publishing Company, 1995), Serial No. 5, 5:351-352. William Youngblood, "Unwritten History of the Gettysburg Campaign," *Southern Historical Society Papers* (Oakman, Alabama: H-Bar Enterprises, 1997), 38:315. James Longstreet, "Lee's Right Wing at Gettysburg," *Battles and Leaders of the Civil War* (Edison, N.J.: Castle Books, 1995), 3:341. *OR*, Series 1, 27(2):350. McLaws, 72. Helen D. Longstreet, *Lee and Longstreet at High Tide* (Wilmington, NC: Broadfoot Publishing, 1989), 64. William C. Oates, *The War Between the Union and the Confederacy and its Lost Opportunities* (Dayton, Ohio: Morningside Bookshop, 1974), 206. *OR*, Series 1, 27(2):308. Lee changes his earlier order redirecting Longstreet to now seize the Peach Orchard first. Edwin Coddington in *The Gettysburg Campaign* (p.736, footnote 90) attempts to explain this change as another phase to Lee original plan. However, when Lee issued the initial order, the enemy was not in the Peach Orchard. Coddington uses Douglas Freeman as a source, who in turn, uses Arthur Fremantle in *Three Months in the Southern States* (April-June 1863):259-260. But Fremantle clearly states that Lee did not arrive in the center of the line until after the cannonade started.
[76] McLaws, 72.

[77] *OR*, Series 1, 27(2):319, 404. Longstreet, "Lee's Right Wing," 3:341.
[78] Ibid.
[79] *OR*, Series 1, 27(2):404, 414.
[80] McLaws, 73. Longstreet, *From Manassas to Appomattox*, 370.
[81] *OR*, Series 1, 27(2):665.
[82] *Annals of War*, 425. Longstreet consistently specifies Cemetery Hill as the target in his multiple writings. He did not appreciate the Rounds Tops as important until after the battle. The Round Tops could not have been the intended target. Lee calls it the "ridge" rather than hill, referring to Cemetery Ridge.

The culmination of a series of apparently unrelated events can have a significant role in the outcome. For instance, Captain Samuel Johnston had to give an inaccurate report. Lee had to believe the enemy flank was exposed and located along Emmitsburg Road. Buford's cavalry had to be pulled from that flank and not replaced. Sickles had to move forward, thus forcing Longstreet to initiate the attack 1,000 yards to the rear of the intended attack position. The conflict between Sickles and Meade regarding Meade's intended position for the 3rd Corps had to exist uncorrected. Longstreet had to be delayed for a specific period of time. Longstreet had to move virtually undetected for a specific amount of time. Lee had to believe that maneuvering Hood to the right would result in finding the exposed flank. Meade had to appropriately respond with sufficient force to stop Hood's attack at Little Round Top. And finally the timing of these events, not just in isolation, but in relation to each other, had to occur as it did. All these chance happenings had to occur before anyone could consider the Round Tops relevant to the deliberate attack of July 2. Even Longstreet did not fully appreciate their relevance until after the battle. With an equal number of Longstreet's forces attacking Cemetery Hill and Little Round Top, one could believe Round Top might also have been his objective. That belief is not supported, when considering that Rodes, Pender, and Anderson were also part of the same attack. Further, Lee would not have constrained Longstreet with any reference to Emmitsburg Road. If Round Top was the objective, Longstreet's artillery was greatly misplaced. Of the 14 batteries, two were not deployed, four could not shoot at the Round Tops, and four other batteries could only partially fire at the Round Tops. If the Round Tops were the objective, the attack would have been along Bushman Hill, rather than through a marsh and over Devil's Den. Lastly, Ewell demonstration would have been directed against Powers Hill, not Culp's Hill, and the demonstration would have preceded Longstreet's attack to divert Federal reserves.
[83] *OR*, Series 1, 27(2):298, 308.
[84] C. M. Wilcox, "General Wilcox to the Rescue," *Philadelphia Weekly Times*, 24 Nov. 1877, 1.