

# Learning Program Management on the Battlefield at Gettysburg

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**W**hat's the best way to learn key program management concepts and skills? The Defense Acquisition University, like many institutions, employs both online and classroom instruction. There is also something to be said for experience as the best teacher, but that experience does not have to come from traditional acquisition programs.

In a recent Program Management Office Course (PMT-352B), the learning-from-experience concept was applied in a class field trip to the Gettysburg Civil War Battlefield. Using the Project Management Institute (PMI) definition of a project as "a temporary undertaking which produces a unique product or service," the Battle of Gettysburg can be considered a project—or to be more precise, two projects: the Union (Army of the Potomac) project and the Confederate (Army of Northern Virginia) project.

The purpose of the class field trip was to conduct an on-site examination of these two "projects" using the wealth of historical data readily available. This battlefield tour was led by John Baniszewski, who is both a licensed Gettysburg tour guide and has a "real" job as a project manager at NASA's Goddard Space Flight Center in Greenbelt, Md.

## Preparing for Battle

Class members were given a set of tailored readings prior to the trip, along with a score sheet created by Baniszewski and based on the PMI Project Management Body of Knowledge criteria. They were then required to score the two projects based on evidence accumulated from both the readings and their tour of the battlefield. At each tour stop, Baniszewski used a hands-on approach, designating a portion of the class as "Company A" and having them briefly walk through the troop movements on that portion of the battlefield. He also drew analogies from events on the battlefield to current acquisition projects in both NASA and DoD.

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As the battlefield tour progressed, students found the information necessary to fill in their score sheets. They learned that the Confederate project had a very clearly defined scope for invading the North but was unable to execute it. Gen. Robert E. Lee, normally an excellent communicator and integrator, seemed disorganized and out of touch with his key subordinates during most of the battle. The Union, on the other hand, was clearly disorganized as the project began, but with the leadership change to Gen. George Meade just days before the battle, that was rapidly turned around. Although not recognized as

either a charismatic leader or brilliant tactician, Meade used his resources wisely and proved to be a uniting force for the Union Army. In short, he was the better project manager in this situation.

So what are the project management lessons we can learn from the Battle of Gettysburg? I'm sure there are probably many more than we can cover here, so I will concentrate on four key themes that I think were very relevant to the outcome of the battle and are just as relevant to project managers in today's defense acquisition environment.

### Lesson 1: Communication

Communication among senior leaders and between the leaders and their troops was vitally important to the out-

come of every Civil War battle. During the Civil War, cavalry detachments were a primary communications tool for the army. They not only screened their own army's movements from the enemy, but also continually gathered information on enemy movements and troop strength.

him to go on a daring raid around the Union Army, which he had done successfully in the past. Lee agreed as long as Stuart was able to still perform his primary function of scouting enemy troop movements. Unfortunately, Stuart's raid not only took far longer than anticipated, but it also took him out of contact with Lee's army during the days leading up to the battle. As a result, Lee was almost totally in the dark as to his enemy's whereabouts and blundered into the Union Army at Gettysburg on June 30th, 1863. Lack of communication plagued the Confederate Army throughout the battle.

On the other hand, for Army of the Potomac, communication improved dramatically once Meade took over. Information about the Confederate Army was obtained from multiple sources (Union cavalry, civilians, Confederate deserters, captured prisoners, escaped slaves, and telegrams from Washington) and fed to the army's Bureau of Military Intelligence. Meade made excellent use of this unit to provide almost real-time intelligence. As a result, Meade was much better informed for decisions he made during the battle.

Just as communication played a vital role in the outcome at Gettysburg, it is also vital to success in project management. My study (reported in "The Ideal Program Manager," *Defense AT&L*, May-June 2005) found communication to be the top skill required of successful defense program managers.

### Lesson 2: Project Integration

Integration among the different units that make up an army is critical to their success on the battlefield. Lack of coordination at Gettysburg cost many troops their lives and many commanders their jobs.

At Gettysburg, Lee seemed reluctant to assemble his key subordinates to jointly discuss strategy. He tended to interact with commanders individually, giving them their orders and not expecting any debate. He may have been fatigued from the northward march, but most probably he was a victim of his recent and dramatic successes against the Army of the Potomac and thus had little respect for his adversary. His plan was simply to lure the Union army out into the open and destroy it. He gave no thought to a backup plan or the possibility of defeat. Not surprisingly, Confederate troop movements were not particularly well coordinated on any of the three days of the battle.



Gettysburg tour guide and real-life NASA project manager John Baniszewski (left) explains tactics with the help of author Gadeken holding battle plans. Photograph by John Bowden.

There was no better cavalry commander in the Civil War than Confederate Gen. J. E. B. Stuart. However, Stuart also craved the fame and fortune that went along with the job and was not above grandstanding when the opportunity presented itself. Such an opportunity arose as Lee took the Army of Northern Virginia on their second invasion of the North in June of 1863. Stuart pushed Lee to allow

come of every Civil War battle. During the Civil War, cavalry detachments were a primary communications tool for the army. They not only screened their own army's movements from the enemy, but also continually gathered information on enemy movements and troop strength.

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Meade took just the opposite tack in dealing with his key subordinates, having been one of their peers until just three days before the battle. As a competent field commander, Meade skillfully coordinated the movement of his strung-out units toward the impending battle at Gettysburg. Arriving at midnight after the first day of the battle, Meade immediately assembled all of his field commanders and assessed the information they provided. He then had a map of the battlefield drawn up with copies provided to his commanders, indicating their positions and assignments for the next day. Meade repeated this process at the end of each day of the battle, asking each subordinate to report in turn and asking their opinions of the strategy laid out for the coming day. He used this participative management approach to both obtain information and get buy-in from his key subordinates.

The need to coordinate different units in an army corresponds to the need to coordinate the different parts of a project (both subsystems and subteams, such as integrated product teams). Recognition of this need prompted the PMI to alter its established body of knowledge by adding an additional ninth element: *project integration*. In fact, one might argue that the essence of competent project management, and what makes it truly unique, is successful systems integration.

### **Lesson 3: Flexibility**

Even the best-laid plans of the commanding generals quickly became outdated as the battle progressed. So both Lee and Meade were constantly faced with balancing clear and specific direction to their subordinate commanders with the need to allow them the flexibility to adapt to the changing battlefield environment. Their success in achieving this balance was the single most critical factor in the outcome of the battle. To understand why this was the case, we need to go back to the organizational changes made in both armies leading up to the battle.

When he assumed command of the Army of Northern Virginia in 1862, Lee put together a team of very capable field generals with different talents. Lee was a master at using these talents so they complemented each other on the battlefield. But the talent mix was disrupted when Lee's leading field commander, Thomas "Stonewall" Jackson, was accidentally killed by his own troops after his brilliant rout of the Union army at Chancellorsville in May of 1863. This led to a reorganization of Lee's army that elevated James Longstreet to the position of Lee's most able lieutenant. Unlike Jackson, who was a daring, attack-oriented leader, Longstreet was a much more methodical and defensive-minded commander. Lee's reorganization also brought increased responsibility for two other generals, Richard Ewell and A.P. Hill.

Lee had evolved a style where he allowed his field commanders discretion in carrying out their assigned orders, but this proved to be seriously flawed with his new leadership team. Although Lee had given orders to avoid a battle until the whole army was assembled, the often-impetuous A.P. Hill and his lead element under Gen. Harry Heth decided to attack when they encountered an enemy force at the outskirts of Gettysburg. With no clear plan, Confederate units attacked piecemeal as they arrived on the battlefield. Still, Lee's army began to rout their opponent. In pursuing the retreating Federals, Lee gave Gen. Ewell discretionary orders to take the Federal position on Cemetery Hill "if practicable." But Ewell was reluctant to push his advantage on the eve of the first day, and by the next morning, Union troops were dug in and reinforced, making their position virtually impregnable. This effectively negated Ewell's contribution for the rest of the battle.

Longstreet, on the other hand, proved fully capable of executing discretionary orders on the battle's second day. Based on faulty intelligence, Lee directed Longstreet to make a flank attack on the Union left. When Longstreet discovered the extended Union line, he adapted quickly and executed a new plan that featured a carefully staged series of attacks designed to exploit the weaknesses in the Union position. Although outnumbered, his men drove the Union army back a mile and inflicted severe casualties on them.

The crux of the battle came on the third day, when Lee directed Longstreet to make a frontal assault against the middle of the Union line. Longstreet protested violently that the Union position was too strong and could not be taken. Lee ignored the advice of his experienced field commander and directed the attack be made. The rest, as they say, is history. Longstreet's lead division under Gen. George Pickett was brutally repulsed and "Pickett's Charge" became known as the high-water mark of the Confederacy. The haunting question that remains is why Lee didn't listen more carefully to his trusted subordinate.

Apparently he felt so sure of his plan that he was unable to adjust to the realities of the situation as it actually existed on the battlefield.

At Gettysburg, Lee seemed at cross purposes with his subordinates. Ewell and Hill, who needed close supervision and specific direction, floundered when allowed to use their discretion. And Lee's best field officer, Longstreet, was hamstrung with specific direction from Lee based on faulty intelligence.

The Union army was reorganized when Meade took command. Meade was able to appoint several competent field commanders—such as Reynolds, Hancock, and Buford—who played key roles in the outcome of the battle. However, Meade did not give his generals the same broad discretion as did Lee, since they were all operating in a hastily reorganized force that, one could argue, needed more centralized control. Still, Meade frequently consulted with his subordinates as part of his strategy of consensus decision making. Meade also had his share of problem generals—Howard and Sickles, for example—but their faulty decision making proved less costly to the Union because Meade compensated with his better information, planning, and control on the battlefield.

The flexibility dimension proved to be the key discriminator between the two opposing armies at Gettysburg. This is equally true in today's defense acquisition environment. Based on 360-degree feedback data accumulated over a 10-year period, defense program managers still lack the ability to properly delegate and empower their subordinates. In our database of almost 8,000 defense program managers, delegation and empowerment rank dead last of all the 24 skill areas. The results of faulty empowerment can be just as damaging to the success of our acquisition programs as they were on the battlefield at Gettysburg.

#### **Lesson 4: Courage**

With the increased range and lethality of their weapons, massed troops proved especially vulnerable in combat, and field commanders were slow to change their tactics to better protect their troops. Courage is what it took for Civil War troops to execute the orders of their superiors, and there was no lack of it on both sides during the battle of Gettysburg.

Examples of courage on the Union side include Gen. John Buford's decision to use his cavalry to hold out against the massing Confederate infantry on the outskirts of Gettysburg, thereby buying time and securing strategic ground vital to the Union during the remainder of the battle. The most-often-cited example of courage was Col. Joshua Chamberlain's desperate defense of the Union left on Little Round Top. Out of ammunition and in danger of being overrun by a superior enemy force, he ordered his men

to fix bayonets and charge down the hill. This move both completely surprised and then defeated their foe. Finally, there was Gen. Hancock, who anchored the Union center during Pickett's charge. Believing he should be constantly visible to his men, he bravely rode up and down the line in full view of the attacking columns. It earned him wounds, but it also earned him the admiration and respect of his men.

Examples of courage were equally evident on the Confederate side. Even though deep in enemy territory, Southern units were ripe for a fight and often had to be restrained by their commanders. The ultimate example of courage was the final Confederate charge on the third day of the battle involving over 13,000 troops moving across a mile of open terrain, where they were exposed to overwhelming artillery and musket fire. The sad commentary here was that such brave men suffered defeat through no fault of their own, but from poor planning, poor coordination, and lack of leadership.

There is a direct analogy between courage on the battlefield and courage in program management. Program managers must have the courage of their convictions and be willing to take prudent risks and be accountable for their actions. Over the last few years, much of the detailed direction has been removed from our acquisition policies in order to encourage our managers to adopt more flexible and innovative acquisition approaches. Yet this flexibility has been far from evident, which would suggest that program managers are still reluctant and perhaps lack the courage to take risks in our system. Although the policies have changed, the acquisition culture is still risk-averse. Courage is still needed to overcome this obstacle.

#### **In Any Environment, Challenges**

What I hoped to accomplish with the student field trip to Gettysburg and with this article was to show how closely the challenges faced during the Battle of Gettysburg match the challenges faced by acquisition program managers today. The biggest single variable affecting the outcome of the battle was people and their actions or inactions. This is equally true in our acquisition environment today. Program management is really people management. The actions or inactions of the program manager and his or her leadership team in using communication, integration, flexibility, and courage will set the stage for success or failure of the program, just as they did on the battlefield at Gettysburg.

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