Soldiers assigned to the 2nd Squadron,11th Armored Cavalry Regiment, cautiously advance into a bunker area as they conduct a raid on the Hateen Weapons Complex 26 March 2005 in Babil, Iraq. The raid was coordinated to disrupt insurgent safe havens and to clear weapons cache sites in the area of operations.

# The Lights and the Heavies

## Adapting Cavalry Branch to the Demands of Force 2025 and Beyond

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*The moment of greatest peril is the moment of victory.*

—Napoleon Bonaparte

The Army's white paper expressing the Army's latest vision for *Force 2025* delineates three primary lines of effort: First, *force employment* is defined as "Army forces in 2025 conducting decentralized, distributed, and integrated operations to prevent, shape, and win using agile, responsive, and innovative combined arms capabilities and special operations forces."[1] Second, *science and technology and human performance optimization* focuses on enabling effective combat units through effective and efficient application of science and technology.[2] Third, *force design* is developing and validating new operational and organizational concepts so the Army can accomplish its missions.[3]

Are these lines of effort sufficient to prepare the Army for dealing with threats in 2025 and beyond? From the perspective of maneuver warfare, this article suggests these lines of effort should be further evaluated to determine sufficiency in the context of emerging threats that cavalry squadrons will be called upon to address. Consider this alternate perspective on Army operations conducted during the last two decades: our success in Desert Storm, remarkable as it was, in fact became the death knell for large-scale, set-piece battles. The result of the one hundred hours of ground combat not only proved to the world our ability to absolutely overmatch our enemy in a conventional fight, but it also highlighted to our enemies the necessity to adapt their forces in order to avoid such a fight in the future—which they have done.

Our Desert Storm experience lulled us into complacency and a disregard for the adaptive nature of our enemies. This became apparent as our initial success in the 2003 invasion of Iraq (with planning largely based on assumptions drawn from Desert Storm) proved, in reality, not to be a victory but rather a significant failure to anticipate the *primary* threat—the insurgency that immediately followed.

The consequence of the changed security environment after Operation Iraqi Freedom (OIF) and Operation Enduring Freedom is that the core competencies of the U.S. Army are now, and must continue to be, grounded in asymmetric warfare in order to deal with the most likely future threats. Conventional conflict has been redefined because of the recognition by our prospective enemies that they cannot stand and fight a set-piece war with U.S. forces. Just as important, our enemies have concluded that there is no need to attempt to match our outsized expenditure on defense programs when they may fight effectively on another level that exploits our weaknesses. An American

Forces Press Service story reports that Gen. Martin E. Dempsey, former chairman of the Joint Chiefs of Staff, said in late 2013 that "the risk of state-on-state conflict is *diminished,* [italics added] ... but because of the global proliferation of technology, the ability of nonstate actors to wage conflict to injure or destroy *has never been greater* [italics added]."[4]

David Kilcullen's *Out of the Mountains: The Coming of Age of the Urban Guerrilla* describes how a combination of globalization, urbanization, weapons proliferation, and failed states will contribute to conflicts being fought within cities against a well-resourced, tech-savvy enemy who can rapidly scale to address our tactics, techniques, and procedures with the aid of commercial off-the-shelf materials and technology.[5] According to FM 2-91.4, *Intelligence Support to Urban Operations,* such enemies "may view [urban conflict] as their best chance to negate the technological and firepower advantages of modernized opponents."[6] The National Aeronautics and Space Administration's Langley Research Center corroborates this stance, according to a slide presentation by chief scientist Dennis Bushnell, which states that "warfare will become increasingly robotic and probably more affordable, [and] *swarms of* sensors/shooters are a given."[7] One need only look at

Russia's successes with hybrid warfare in Ukraine and Georgia—pairing deceptive information operations with special operations and paramilitary forces—or at the similar successes of ISIS (Islamic State of Iraq and Syria) in employing swarming against traditional forces in Iraq and Syria, to see examples of threats to come.

## Changing Role of the Cavalry

As the security environment has changed, so too has the primary demand for the cavalry squadron changed from destroying traditional enemy reconnaissance assets *en masse* to providing effective reconnaissance, surveillance, and targeting. This provides the senior ground commander with a better opportunity to assess cultural environments, threats, and opportunities; to complement special operations forces; and to neutralize the enemy. Improving the capabilities of our squadrons to match this demand is not as simple as adding a new weapon, sighting system, or vehicle; instead, it necessitates fundamental changes to cavalry squadron structure and employment.

## Adapting Structure

Numerous cavalry professionals have written on this subject, including Capts. Joshua Suthoff and Michael Culler. In their excellent article "Ideas on Cavalry," they write, "If cavalry is to be maintained, ideas to keep the branch relevant cannot be scoffed off as dangerous or outside our capabilities."[8] I stand atop their shoulders when saying that first, we must adapt our structure, recognizing that the Army of 2025 and beyond will have multiple requirements for cavalry squadrons.

The first requirement for decentralized light reconnaissance forces is best typified by the Army's increasing use of special operators, combined with unmanned and strategic platforms, in wide area security, special reconnaissance roles. The second requirement, developed from past experience, calls for an expeditionary, combined-arms maneuver force likely to face enemy armor upon initial thrusts into foreign countries. Recognizing that each of the current cavalry squadron formations excels at certain distinctive

Soldiers from 1st Brigade Combat Team, 1st Cavalry Division, maneuver M1 Abrams tanks 15 February 2014 at the National Training Center, Fort Irwin, California, during decisive action rotation 14-04.
(U.S. Army photo by Spc. Randis Monroe, Operations Group, National Training Center PAO)

competencies, accomplishing these two missions requires harmonizing and enhancing our existing capabilities. Though others have written on the need to recognize current structural facts on the ground and change armor branch to cavalry branch, I propose one step further, dividing the new cavalry force into light and heavy cavalry fields, with distinctive characteristics noted as follows:[9]

**Light cavalry—**

• includes the current infantry brigade combat team, Stryker brigade combat team (SBCT), and legacy battlefield surveillance brigade cavalry squadrons

• performs reconnaissance, surveillance, and targeting, and thereby provides security

• has enhanced capability for decentralized, platoon-and-lower attachment to other formations, primarily infantry

• is provided with off-road vehicles and complementary sensors and sighting technology, which allow them to effectively operate using decentralized squads and teams

• conducts training that includes the Reconnaissance and Surveillance Leaders Course, Army Reconnaissance Course, Air Assault School, Pathfinder School, Joint Fires Observer Course, Sniper School, and Combat Tracker Course

**Heavy cavalry—**

• includes current armored brigade combat team (ABCT) armored reconnaissance and tank crew members

• performs offensive and defensive tasks and provides forward reconnaissance and traditional security functions for the combined-arms maneuver force

• operates as offensive-oriented hunter-killer teams due to a combination of armored reconnaissance and tank formations

• conducts training that includes the Master Gunner Course and Army Reconnaissance Course

This proposed division of cavalry into lights and heavies, which would include separate military occupational specialties for each cavalry type but only one cavalry officer control field, is built on two premises:

(1) A well-defined, well-equipped, and well-trained cavalry force responds more effectively to adaptive, innovative enemies.

(2) The mentality, training, and experience required for soldiers in light and heavy cavalry formations differ widely, a fact which will only increase with the advent of new technology and shifting mission requirements going forward.

Separating soldier specializations into two elements will enable each formation's retention of well-trained personnel and organizational knowledge, and it will prevent the steep learning curve and difficulty understanding proper employment that often accompany soldier moves from one type of specialization to the other.

With the separation of specialized cavalry types established, we need more than structural change in the cavalry; we must also change how we fight.

## Adapting Employment

Besides adapting the structure of cavalry units, the Army must adapt how it employs them. Several recommendations on the employment of light and heavy cavalry follow.

**Decentralized light cavalry.** In their current configurations, our light cavalry squadrons have a litany of well-documented problems, summed up in a single question posited by Suthoff and Culler: "What makes a cavalry squadron different from its fellow infantry battalion within an IBCT [infantry brigade combat team] or SBCT besides an anemic modified table of organization and equipment (MTOE)?"[10]

As our force stands now, cavalry squadrons have a recent employment legacy as something other than reconnaissance assets. Instead, they have been viewed as similarly equipped, less capable, land-owning formations that appear redundant alongside infantry within the context of wide area security and asymmetric warfare. In light of this current setting, our force must adapt or perish. Instead of competing against the infantry for a purpose, cavalry should complement the infantry by adding unique value together with, and alongside, infantry formations—as the cavalry has done in the past.

Unfortunately, there appears to be a lack of synchronization of effort and communication of task and purpose between cavalry squadrons and infantry-based maneuver units. Our squadrons are not built to decentralize; indeed, conventional wisdom has us typically moving in the opposite direction, consolidating more organic assets within the light cavalry squadron and rendering it an anemic maneuver force (compared to infantry).

Instead of consolidating a plethora of assets within these light formations, we should focus on our core reconnaissance and surveillance competencies and tailor these squadrons toward shearing—that is, being able to

operate as decentralized elements. They should be trained, equipped, and empowered for detachment at the platoon, squad, and team levels, in keeping with the Army's vision for Force 2025 and future asymmetric warfare settings. We must accomplish this for the simple reason that rising hybrid and swarming threats call for a purpose-built response.

As future enemies become increasingly urban, networked, and dispersed, we must evaluate how our cavalry squadrons will continue to provide maximum value to the Army. One must consider that think tanks, military blogs, and our Army's strategic vision for Force 2025 have all highlighted the importance of special operations



(Artist's concept courtesy of DARPA)

An artist's concept of the new Ground-X Vehicle (GXV-T).

capabilities and decentralization. To this end, we have an untapped asset in the form of cavalry scouts and the light cavalry squadron, especially given that "an asymmetric enemy requires scouts capable of conducting reconnaissance *dismounted in small teams* [italics added] to be effective."[11]

**Modular requirements necessitate unbinding cavalry.** When detached from their parent squadron and working within infantry formations, small scout teams with enhanced training and technical capabilities could act as information nodes in an urban operational area, providing updated data and targeting information through close-access reconnaissance and surveillance. These teams could either work in a reconnaissance and surveillance capacity as "hunters," supporting infantry "killers," or they could fulfill a security function similar to the successful small-unit kill team methodology of OIF, where small ambush teams targeted improvised explosive device emplacement cells within urban areas and along main supply routes.[12] Whether actively or passively employed, these decentralized teams would be professionalized through schools, such as the Reconnaissance and Surveillance Leaders Course. They could become

experts of fieldcraft and concealability, drawing upon—as opposed to merely hand-waving—the lessons of Iraq and Afghanistan in order to conduct deceptive infiltration and exfiltration when attached to infantry units conducting operations such as cordon and search. These teams would then be vastly more effective when paired with emerging technologies.

*Force 2025* describes science and technology—particularly commercial off-the-shelf—as integral to the future of warfare. This bodes well for our cavalry squadrons because, as the Army's reconnaissance professionals, they are uniquely positioned to push for these capabilities and not simply to wait and see what technologies develop elsewhere and percolate down. Cheap and ubiquitous sensors could revolutionize the use of light cavalry as the sensors greatly expand potential reconnaissance and surveillance depth and coverage area, especially when paired with a structure of small, decentralized scout units.

Such teams would be equipped and trained to employ currently available sensors, such as the Close-Access Target Reconnaissance system and the Unattended Ground Sensor system.[13] These are devices that enable audio and visual tagging, tracking, and locating of targets—particularly, though not exclusively, in urban settings—and easily, and comparatively cheaply, increase information-gathering capabilities for the entire combat formation. Teams would also be equipped with currently available mobile target acquisition systems, such as the VECTOR rangefinder binoculars that, when paired with a Global Positioning System receiver, allow the operator to generate target-location grids as accurately as, and with much greater freedom of employment than, a massive, unwieldy Long-Range Advance Scout Surveillance System (LRAS3), at ranges common to urban environments.[14]

These technologies are currently taught in military schools but have yet to be assigned across all cavalry squadron MTOEs in the scout role. As Lt. Col. Eric Lowry wrote in a 2014 article, "Ten years of war in the Middle East fighting an enemy that can blend into the population have demonstrated the need for a more thorough ability to find and positively identify that enemy. The identification and destruction of enemy support networks … [is a] vital aspect that supports the Army of 2020."[15]

The aforementioned sensors and other unmanned surveillance technologies are examples of available capabilities that would allow detachments from light cavalry squadrons to more effectively identify and target these enemy networks. They would also greatly enhance a cavalry unit's ability to fulfill information requirements in future asymmetric warfare settings.

**Cavalry squadrons of the future.** The ideal light cavalry squadron of the future will be prepared to operate in a decentralized manner, detaching teams of reconnaissance enablers to comparatively robust infantry units. This recommendation fits well into the paradigm of regionally aligned forces and small-unit deployments for foreign internal defense. Teams and squads of light cavalry scouts equipped with surveillance control systems and specialized light vehicles—such as, perhaps, the light tactical all-terrain vehicle currently in use by certain airborne units, or, further in the future, the Defense Advanced Research Projects Agency's proposed Ground X Vehicle—could add unique value to infantry companies as currently provided by highly coveted sniper teams.[16] Rather than simply operating an LRAS3 (typically used on an infantry vehicle such as the Stryker or the mine-resistant ambush-protected [MRAP] vehicles), these teams would include personnel qualified as joint fire observers and trained through attendance at the Army Reconnaissance Course, Pathfinder School, and Air Assault Schools. With light vehicles and emerging technology, these teams can provide a capability outside the means of infantry. Rather than passively consuming sensor information through viewing terminals, such teams could instead use sensor and unmanned platform control systems to increase reconnaissance coverage and produce complementary surveillance value.

With a new MTOE, our light cavalry squadrons could train and prepare these teams along with fellow information-collection assets, such as an unmanned aerial surveillance platoon, a human intelligence team, and interpreters, all readily available for detachment to infantry companies. However, our current light formations err too far toward heavy and contiguous employment to operate along these lines. Decentralizing our light cavalry squadrons would allow the above-mentioned technology and training capabilities to be distributed across the entire maneuver force as opposed to being condensed within one formation. While bearing this in mind, the Army of 2025 also demands a combined arms maneuver capability—one that is best provided by heavy cavalry.

**Combined arms heavy cavalry.** Current cavalry squadrons equipped to provide armored warfighting capabilities include those within the ABCT and the SBCT. However, the lighter SBCT cavalry squadron is less effective in this role for a number of reasons. First, as practical experience has shown, the function of this squadron performing standoff reconnaissance as the tip of the spear for the SBCT and follow-on ABCTs does not survive first contact with commonly templated enemies. Employed within varied terrain, the cannon and antitank guided missile systems of even a small number of legacy Soviet systems, such as the BMP-2 infantry fighting vehicle, contain sufficient range and firepower to attrit an entire Stryker cavalry squadron and thus degrade the operational tempo of follow-on armored forces.

This employment dilemma calls to mind the similar invalidation of the pre-OIF brigade reconnaissance troop concept, in which light cavalry scouts equipped with high-mobility multipurpose wheeled vehicles failed to maintain heavy brigade combat team operating tempo due to sustaining unacceptable losses.[17] Second, couple this lack of Stryker cavalry survivability with the absence of robust, organic maintenance or fueling capabilities—such as those provided by a forward support company—and you have a formation unlikely to be able to sustain operating tempo in a future conventional, forcible-entry fight.

It would be far more effective to set unambiguous priorities, to integrate this functionally light cavalry force into a follow-on, dispersed, wide area security role, and to employ more heavily armored ABCT assets in a hunter-killer role at the forefront. In this

way, the Bradley-equipped cavalry scouts and tankers of the ABCT together would adopt the sole mantle of heavy cavalry.

Within heavy cavalry, effective force development and employment require specific preparation within a typically offense- and defense-focused mission-essential task list. However, a decade of general employment has meant that preparations for large-scale decisive-action missions have suffered. Additionally, as noted by Sgt. Maj. (retired) Derek McCrea, "the ABCT priority over the past decade has not included repetitive and traditional Bradley gunnery, maintenance, and maneuver training due to repeat deployments on nonstandard vehicles (MRAPs, etc.)."[18] By muddying the waters between light and heavy cavalry, we have created broadly focused and less technically proficient formations. In order to build and maintain a heavy cavalry mentality focused around the characteristics of the offense—surprise, concentration, audacity, and tempo—we must necessarily employ light and heavy cavalry squadrons in roles specific to their composition and core competencies. Our problem, reinforced by current doctrine, is that we tend to assume that capabilities are virtually the same across all types of cavalry squadrons.

As seen in the table on page 52, current cavalry squadron mission profiles do not distinguish between most of the various, differently composed formations, thereby promoting employment for the same kinds of missions.[19] We may improve our force by instead recognizing and harmonizing existing capabilities and limitations and making the ABCT heavy cavalry our primary *fighting cavalry*—a hunter-killer force capable of becoming decisively engaged when necessary and of being the tip of the spear in a forcible-entry fight into another country. Upon clearing the ground of armored threats, this force would be followed by a force of SBCT or IBCT infantry and light cavalry units in a primarily wide area security role, with decentralized scouts acquiring urban and low-intensity targets, gathering information, and developing the situation for their offense-focused infantry and heavy cavalry brethren.

## Conclusion

The Army would do well to remember the French knights at Agincourt who rode forth tall, proud, and
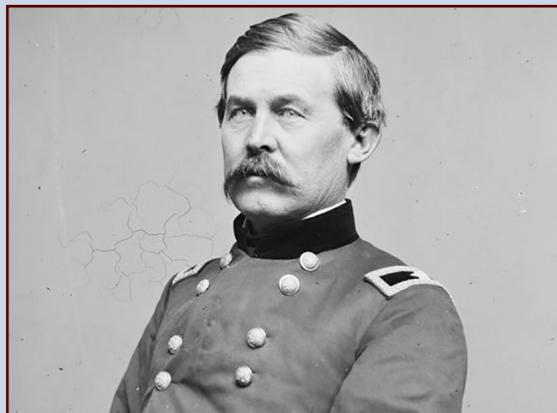


(Photo courtesy of the Library of Congress)

Portrait of Brig. Gen. John Buford (Maj. Gen. from 1 July 1863), officer of the Union Army

## The Decisive Role of Cavalry at Gettysburg

The Union Army's First Cavalry Division provided us with a classic example of the effective use of cavalry when it successfully accomplished traditional cavalry missions during the Battle of Gettysburg. In mid-June 1863, division commander Brig. Gen. John Buford was given the mission to find, impede, and collect intelligence on the Confederate Army, commanded by Gen. Robert E. Lee.

The Confederate forces had crossed north into Pennsylvania, but their exact location was unknown. However, on 30 June 1863, cavalrymen from Buford's force found the lead elements of Lee's army just west of the small town of Gettysburg, Pennsylvania. Buford immediately reported this via courier to the commanding officer on the field, Maj. Gen. John Reynolds, who ordered the bulk of the Union forces to begin prompt movement toward Gettysburg. In the meantime, Buford directed his force of about three thousand cavalrymen to seize the high ground overlooking the approaches to Gettysburg ahead of Confederate forces. Initially, Buford's cavalry, fighting as light infantry, caused Lee's army to deploy prematurely into fighting formations before it had fully concentrated its forces. This successfully helped delay the Confederate army's progress until the full complement of Union forces had arrived under overall commander Maj. Gen. George Meade. Subsequently, Buford's cavalry conducted relentless mounted reconnaissance missions that gave Union senior leaders accurate and detailed intelligence of Confederate force movements and dispositions.

Many historians regard the actions of Buford's cavalry at the outset of the engagement as perhaps the most important single factor that shaped the situation and enabled the Union Army to win the Battle of Gettysburg. Despite the passage of years and dramatic advances in equipment and technology, it is easy to envision how cavalry, both light and heavy, could play a similarly pivotal role in engagements fought under the conditions of the current operating environments.

| Type of Squadron | Armored Brigade Combat Team Cavalry Squadron | Stryker Brigade Combat Team Cavalry Squadron | Infantry Brigade Combat Team Cavalry Squadron | Battlefield Surveillance Brigade Cavalry Squadron |
|---|---|---|---|---|
| **Reconnaissance Tasks** | | | | |
| Zone Reconnaissance | F | F | F | P |
| Area Reconnaissance | F | F | F | F |
| Route Reconnaissance | F | F | F | P |
| Reconnaissance in Force | P | P | P | X |
| **Security Tasks** | | | | |
| Screen | F | F | F | P |
| Guard | P | P | P | X |
| Cover | X | X | X | X |
| Area Security | F | F | F | R |
| Local Security | F | F | F | F |
| **Offensive Tasks** | | | | |
| Attack | P | P | P | X |
| Movement to Contact | P | P | P | X |
| **Defensive Tasks** | | | | |
| Area Defense | P | P | P | X |
| Mobile Defense | P | P | P | X |
| Retrograde | P | P | P | X |
| **Stability Tasks** | | | | |
| Civil Security | F | F | F | R |
| Civil Control | F | F | F | R |
| Restore Essential Services | R | R | R | R |
| Support to Governance | R | R | R | R |
| Support to Economic/ Infrastructure Development | R | R | R | R |
| **Civil Support Tasks** | | | | |
| Support to Disaster/ Terrorist Attack | Capability depends on specific missions assigned. Depending on the mission, the squadron may require augmentation. | | | |
| Support to Civil Law Enforcement | | | | |
| Other Support | | | | |
| **F-Fully capable** | R-Capable when reinforced | | | |
| **P-Capable when enemy capabilities do not jeopardize mission accomplishment** | X-Not capable | | | |

## Cavalry Squadron Capabilities Matrix

Sgt. James Small and Spc. Andreas Plaza, Company A, 1st Squadron, 61st Cavalry Regiment, scan the area from a mountaintop overlooking the Towr Gahr Pass 6 November 2010 in Nangarhar Province, Afghanistan. The soldiers climbed over a 4,000-foot mountain to visit Gurem Village for the first time.

confident, only to be destroyed by English longbows—of which they were aware before the battle but had not deemed a pressing threat, warranting critical reflection and reform of force employment. Similarly, the cavalry branch must adapt—as opposed to just revisiting old ideas. At the same time, the Army must adapt by reconstituting the force, which should include reforming employment of cavalry to face the primarily urban, decentralized, flatly networked threats of 2025 and beyond. To that end, the Army must recognize that asymmetric warfare is not a niche capability—it is the future. Therefore, it must improve the force in accordance with two recommendations: development of specialized, decentralized light cavalry squadrons capable of detachment in reconnaissance, surveillance, and target-acquisition functions; and development of combined arms maneuver heavy cavalry squadrons trained and structured to conduct audacious offensive and defensive operations and more conventional reconnaissance and security, especially in forcible-entry situations. Above all, we must remember to be tactically sound and not doctrinally bound—in short, to innovate and not be like those French knights at Agincourt. ◼

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