# ARMOR

## Mounted Maneuver Journal

### July-September 2014

# CAVALRY UPDATE (6X36)

# ARMOR

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# COMMANDANT'S HATCH

*BG Lee Quintas*
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# Cavalry Update

Based on recent trends observed at the National Training Center, the Army Chief of Staff asked the Maneuver Center of Excellence (MCoE) to answer a poignant question. Our goal was to determine if today's cavalry squadron is manned, trained and equipped to accomplish the reconnaissance and security (R&S) missions required of a bri-

gade combat team (BCT).

On April 29, 2014, in a collaborative effort with our teammates at MCoE, Army Capabilities Integration Center and Training and Doctrine Command staffs, we provided the Chief information and recommendations on short- and long-term solutions to man, train and equip cavalry squadrons to

accomplish their R&S missions as part of combined-arms maneuver (CAM) and wide-area security (WAS).

As the Army transitions focus to decisive-action training environment (DATE) rotations in preparation for the

## Problem statement:
### Is today's cavalry squadron manned, trained and equipped to accomplish required reconnaissance and security missions?

## Answer:
## NO

## Methodology:
☐ Conduct DOTMLPF review of cavalry squadron capabilities: determine short-term and long-term solutions

## Results:
☐ Initiatives underway: leader development (maneuver leader-development strategy, Department of Recon
☐ and Security, professional-development model) doctrine, FDUs
☐ Additional actions required: FDUs, R&S BCTs, Lightweight Reconnaissance Vehicle, communication,
☐ future enhanced capabilities

## Cavalry squadrons are critical because they:

☐ Identify opportunities and dangers
☐ Create and preserve options
☐ Determine enemy intent
☐ Enable discriminate use of force

☐ Facilitate transition
☐ Ensure freedom of maneuver and action
☐ Develop the situation in contact
☐ Provide time and space

**Figure 1. Cavalry capabilities review.**

next potential conflict, it is imperative that all branches understand the cavalry's capabilities. Cavalry squadrons, through the execution of R&S missions, provide critical support to the BCT because they:

• Identify opportunities and dangers;
• Enable discriminate use of force;
• Create and preserve options;
• Facilitate transition;
• Ensure freedom of maneuver and action;
• Develop the situation in contact;
• Determine enemy intent; and
• Provide time and space.

DATE rotations across the three combat training centers (CTCs) and all three BCTs reveal mission challenges for the cavalry squadron, which can be organized into related problem sets. These problem sets reflect the cumulative impact of an over-reliance on technology and subsequent adoption of flawed doctrine, organizations and concepts following Operation Desert Storm – continuing with the Army's transformation to modularity.

# Evolution on how we got here

In the years following Operation Desert Storm, the fielding of new sensor technologies and the emergence of a digital network combined to provide scouts with significant capability enhancements. With an increased ability to gather and share information from afar, a new contact paradigm emerged that assumed cavalry formations could gain contact and develop the situation mounted from unarmored or lightly armed platforms – all while remaining safely outside the enemy's direct-fire engagement range.

This contact paradigm shaped the organization and employment principles of the reconnaissance, surveillance and target acquisition (RSTA) squadrons of what was then our interim formation, the Stryker BCT (SBCT), and subsequently, of the brigade reconnaissance troops organic to the armored brigades of our mechanized divisions.[1] These formations possessed minimal combat

capability relative to their parent organizations; they were designed to serve primarily in an information-collection capacity at a distance from and out of contact with the enemy.

The contact paradigm proved problematic under the demands of the wars in Afghanistan and Iraq. In fact, the 2003 march to Baghdad initially raised concerns about this detrimental influence. Standoff information collection from light platforms proved unrealistic in high-tempo operations characterized by a series of movements-to-contact and sudden, sharp encounters with Iraqi conventional and paramilitary forces. In the complex operational environment in which they operated, brigade commanders required formations with the ability to develop the situation through close contact with enemy forces, capable of providing early warning and security for the main body.[2]

Despite recent combat experiences to the contrary, the Army retained the contact paradigm and RSTA influence
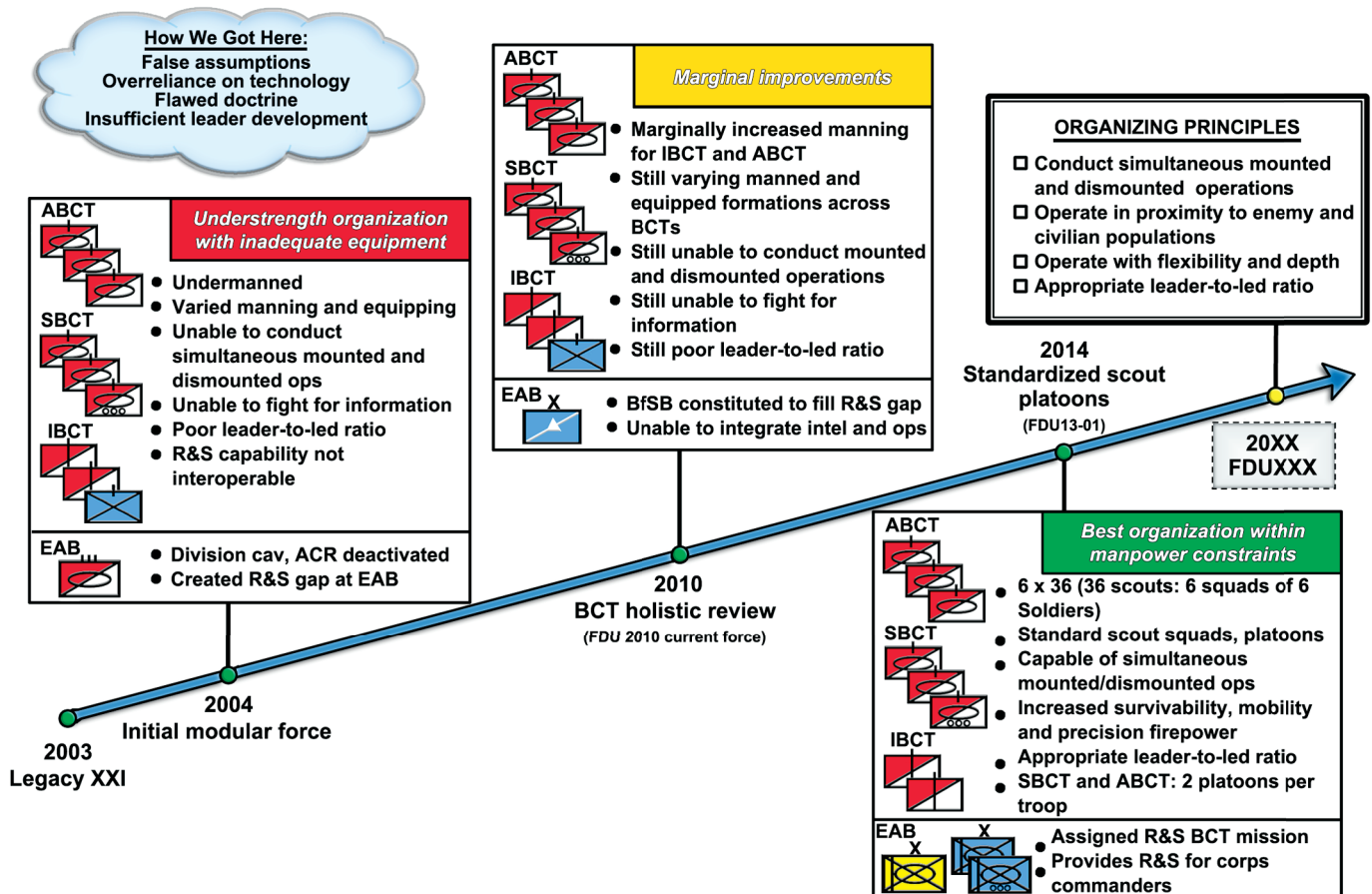


Figure 2. Cavalry-formation evolution.

during transition to modular BCTs and elimination of division cavalry squadrons and the armored cavalry regiment (ACR). The deactivation of these formations left the force structure without an organization that possessed the organic assets, doctrinal underpinning and specialized training to execute the broad range of traditional cavalry missions (zone, route, area reconnaissance, guard, screen, cover, etc.). The compounding factors of flawed modular cavalry squadrons and the loss of the aforementioned traditional cavalry capability were not readily apparent as the force entered focused and extended counterinsurgency and security-force-assistance campaigns in Iraq and Afghanistan. Only when BCTs addressed the challenges of full-spectrum of warfare would cavalry formations fully expose their limitations. This realization occurred because of our ongoing shift to an Army of Preparation and the ensuing DATE rotations in echelons-above-brigade (EAB) warfighter simulations, and at our respective CTCs.

The following discussion describes the most significant challenges to the cavalry squadron and recommends actions that will create formations consistent with the organizing principles of appropriate leader-to-led ratio; capable of conducting simultaneous mounted and dismounted operations in close proximity to enemy and civilian populations; and organized with both the flexibility and the depth required for mission success.

**Problem Set 1: BCTs do not effectively employ cavalry squadrons or apply mission command in support of R&S operations.**

Despite the importance R&S operations play in setting the conditions necessary for tactical and operational success, the Army's BCTs struggle to effectively employ their organic cavalry squadron. Inadequate leader development, flawed doctrine and understrength organizations combine to create a generation of leaders who lack the knowledge, skills and experience to effectively plan and execute R&S operations within the context of CAM and WAS operations.

Brigade commanders and their staffs

lack leader development and training to plan and execute R&S missions. Brigade staffs ideally comprise subject-matter experts with a variety of skills, including fires, aviation, intelligence, engineering and logistics. In the case of R&S operations, however, no designated staff officer possesses the unique training and experience required to assist the brigade commander to properly employ and use his R&S assets in answering his priority information requirements.

The lack of updated R&S doctrine and related education and training for leaders above the company level compounds the lack of R&S expertise for commanders and staffs at BCT and EAB. Currently the Cavalry Leader's Course (CLC) provides the most advanced functional course taught at MCoE, targeting company-grade officers and senior noncommissioned officers serving at the troop- and cavalry-squadron level.

**Problem Set 2: Cavalry squadrons lack the training and the leader development and education to conduct R&S operations and to integrate all arms and enablers (e.g., fires, aviation, engineers, chemical-biological-radiological-nuclear-explosives).**

Related to challenges encountered at BCT level, the squadron command team and supporting staff also suffer from a lack of knowledge, skills and experience in conducting R&S operations. Compounding the lack of experienced senior leaders, cavalry squadrons contain a generation of Soldiers and junior leaders more comfortable conducting counter-improvised-explosive-device and presence patrols, or a four-man stack, than they are conducting a zone reconnaissance or screen mission. The demands of 13 years of operational deployments to Operation Iraqi Freedom and Operation Enduring Freedom focused time and resources very specifically to these theater and missions. The tempo of Army Force Generation also caused leaders to forgo sending subordinates to critical functional training such as the Reconnaissance and Surveillance Leader's Course, Army Reconnaissance Course and CLC. The cumulative effect of this deployment-focused training over 13

years has resulted in scouts unfamiliar with R&S operations.

In addition to a general decline in individual- and collective-task proficiency, modular cavalry squadrons face limitations in their structure and manning. As currently organized, the various cavalry squadrons of the BCTs are unable to conduct the security missions of *guard* and *cover* normally associated with a cavalry formation. As an unintended casualty of modularity, cavalry squadrons now also lack historically organic relationships with aviation, fires and intelligence enablers. The resulting lack of habitual relationships in training and deployments creates training shortfalls in our cavalry leaders, and this results in cavalry organizations not fully capable of conducting all their doctrinal tasks and missions.

**Problem Set 3: Cavalry squadrons cannot conduct appropriate combinations of simultaneous mounted and dismounted operations in close contact with the enemy and the civilian populace.**

As previously mentioned, rapid increases in technology contributed to an erroneous belief that future cavalry formations could conduct reconnaissance operations either dismounted or mounted, and that technology would allow units to conduct security operations out of direct contact with the enemy. Overwhelming success in Operation Desert Storm proved to be a poor example of future war, contributing to the thought that future war would be easy and that technologically superior U.S. forces would dictate the nature of the conflict. Instead, the wars in Afghanistan and Iraq confirmed that future enemies will fight asymmetrically — choosing to fight our weaknesses rather than our strengths. Recent history also validated that formations conducting R&S operations will require the capability to fight and develop the situation through close contact with the enemy — a fight that is often complicated by proximity to indigenous populations. Accordingly, our scout formations must be able to conduct R&S operations both mounted *and* dismounted, *and* able to fight for information in close contact with the enemy and among the people.

**Figure 3. Scout platoons lack integrated OSRVT capability to download UAS feeds, such as from this Shadow, during operations.**

**Problems 4 and 5: Cavalry squadrons are equipped with inadequate vehicles, weapons and communications.**

Cavalry organizations lack equipment required to conduct R&S operations. Based on ongoing and future force-design updates (FDUs), cavalry formations require the increased broadband over Internet Protocol of Nett Warrior and associated advanced voice and data long- and short-range systems for mounted and dismounted R&S missions. Also, scout platoons lack integrated One System Remote Video Terminal (OSRVT) capability to download unmanned aerial system (UAS) feeds during operations.

**Infantry BCT (IBCT):** The uparmored humvees (UAH) fielded to the IBCT cavalry squadron lack the passenger-carrying capacity, protection and mobility required for R&S operations. UAH cannot survive direct-fire engagements against enemy heavy machine-guns or anti-tank guided missiles, and they lack the firepower to fight for information. Ironically, the limitations of UAH restrict the number of personnel available for dismounted operations across the IBCT cavalry formations. The IBCT also lacks the organic mobile, protected firepower (MPF) required for security operations and to support successful transition operations.

**SBCT:** The Stryker-recon variant and the Stryker-infantry carrier variant lack stabilized optics and stabilized weapons systems required for R&S operations.

**Armored BCT (ABCT):** For the reasons previously stated, the UAH fielded to the scout platoons of the ABCT's combined-arms battalions lack the passenger-carrying capacity, protection, lethality and mobility required for R&S operations.

## Actions underway

Many of the initiatives necessary to address the shortfalls in R&S-related training, leader development and education are underway.

An initiative has commenced to review and revise the live, virtual, constructive and gaming materials designed to train BCTs and EAB formations. This effort seeks to ensure that units and the elements designed to externally assess units (CTCs, Mission-Command Training Program, etc.) employ scenarios that address R&S operations critical to success in the DATE.

Complementary to unit efforts to train leaders and formations, the MCoE has reinvigorated R&S-related leader development and education to enable cavalry squadron leaders and staff. The MCoE has aligned functional courses to allow attendance following professional military education (PME). Also, the MCoE has initiated revision of modified tables of organization and equipment, coding positions in support of the R&S functional training and reinforced by an R&S career path as reflected in updates to Army regulations 600-3 and 600-25.

While current R&S functional training covers operations at the squadron echelon and below, Intermediate-Level Education will pilot an elective this fall to teach field-grade officers how to plan and execute R&S operations at BCT and EAB level. Similarly, the MCoE proposes designing R&S electives to afford training opportunities at the U.S. Army Sergeants Major Academy, Pre-Command Course and, eventually, for distance learning. Collectively, these efforts will provide future leaders and staffs with the training, education and experience to man and conduct R&S missions at echelon.

Finally, revisions and improvements to doctrine underpin future cavalry squadron and R&S operations. All maneuver doctrine now includes an R&S chapter. A rewrite of Field Manual 3-98, *Reconnaissance and Security Operations*, awaits final draft review. Future initiatives include similar R&S chapters for all related doctrinal publications – both at EAB and of our sister branches and centers.

## Recommended actions

Army 2020:

- FDU 13-01: A set of three related documents that standardize the scout squads and platoons of the three cavalry squadrons with no personnel growth – recommend immediate approval. As of this publication, the FDU standardizing the ABCT has been approved; we expect the standardization of the IBCT and SBCT to happen in the coming months.

- The decision to assign the R&S mission to one ABCT and two SBCTs was made Sept. 24, 2013 – while further drawdown announcements are likely, the corps-level R&S capability gap endures – recommend immediate implementation.

- An acknowledged vehicle shortfall exists in the IBCT cavalry squadron – recommend expedition of a government-off-the-shelf/commercial-off-the-shelf solution for the Lightweight Reconnaissance Vehicle.

- Improved manned/unmanned

teaming – both air and ground (e.g., OSRVT, UAS, etc.)

- Improved capabilities at the squad level to achieve tactical overmatch (e.g., Lethal Miniature Aerial Munition System, Maneuver and Fires Integrated Application, etc.)

Army 2025 and beyond:

- A pending FDU further standardizes scout platoons of the IBCT infantry battalion to consist of 36 Soldiers – recommend approval for fielding as the opportunity presents itself.

- Consistent challenges experienced by cavalry squadrons conducting R&S operations support a standardized squadron design – recommend validation and resourcing of the requirement for cavalry squadrons to reflect a standardized 6 x 36 x $3^2$ – squadrons consisting of three cavalry troops, with each cavalry troop consisting of three scout platoons.

- Develop the future cavalry squadron with enhanced capabilities (UAS, unmanned ground vehicle, MPF, etc.).

In conclusion, cavalry squadrons require agile and adaptive leaders and the appropriate formation composition to enable Army brigades to operate as part of joint and multinational task forces – to seize and retain the initiative in diverse operational environments across the range of military operations. Cavalry organizations and their brigade headquarters require appropriate training, manning and equipping to achieve their R&S objectives. To achieve their objectives, cavalry squadrons fight for information and simultaneously conduct mounted and dismounted operations, employing critical enablers such as aviation, fires and MPF.

Cavalry squadrons organized in a 6 x 36 x $3^2$ configuration and supported by task-organized and habitually related enablers – complemented with comprehensive institutional and organizational training, leader development and education – are best prepared to accomplish the mission. Preparation includes adherence to an R&S career path that develops leaders through repetitive cavalry assignments, alignment of PME and functional training and an emphasized maneuver leader-development strategy. Finally, continued refinement of R&S doctrine, practiced through the implementation of the DATE scenario at home-station training and CTCs, sustain readiness in an evolving and dynamic environment.

## Notes

[1] Mark, Daniel MAJ, "Effective or Efficient: The Conundrum of the Armed Reconnaissance Squadron," AY 08-09, master's thesis, U.S. Marine Corps Command and Staff College, http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA508021.

[2] Cameron, Robert S. Dr., *To Fight or Not to Fight: Organizational and Doctrinal Trends in Mounted Maneuver Reconnaissance from the Interwar Years to Operation Iraqi Freedom*, Fort Leavenworth, KS: Combat Studies Institute Press, 2010.

# In Memoriam: MG Thomas C. Foley, 33rd Chief of Armor

It is with great sadness that we have to report the death of retired MG Tom Foley. He passed away in his sleep Oct. 14, 2014, with his family beside him.

Thomas Carl Foley was commissioned a second lieutenant of Armor upon graduation from the University of Massachusetts in 1957. He entered active duty at Fort Knox, KY, in 1958 as an Armor officer, beginning more than 34 years' service in the U.S. Army, including two tours in Vietnam and seven in Europe. MG Foley's commands included a Cavalry troop, 1/33 Tank Battalion and 3rd Brigade, 3rd Infantry Division (Mechanized). He also served as assistant division commander of 8th Infantry Division.

MG Foley served in several significant staff assignments – most notably on the Army G-3 staff, where he assisted in developing the Abrams main battle tank. From 1986 to 1988, MG Foley played a leading role in combat and doctrine development at U.S. Army Training and Doctrine Command headquarters. These assignments helped prepare him for command of the Armor Center from 1989 to 1992. During his command tenure at Fort Knox, he oversaw the preparation of Armor and Cavalry organizations for combat operations in Southwest Asia that culminated in the highly successful Operation Desert Storm. He also crafted and implemented Armor 2000, a master plan that served as a roadmap for the branch's development through the 1990s, ensuring its readiness and adaptability to the challenges of the 21st Century.

MG Foley culminated his career as the 33rd Chief of Armor and commanding general of the U.S. Army Armor Center and Fort Knox, and retired from the Army in 1992.

His awards and decorations included the Distinguished Service Medal with oak-leaf cluster; Legion of Merit; Bronze Star Medal with oak-leaf cluster; Meritorious Service Medal with oak-leaf cluster; and Air Medal with V device.



His military schooling included the Armor School's basic and advanced courses; Naval College of Command and Staff; and the U.S. Army War College. He held a bachelor's of arts degree in finance from the University of Massachusetts and two master's of science degrees: one in international relations from George Washington University and one in systems management from the University of Southern California.

As members of the armored force, let us carry on his legacy as a Soldier and an Armor leader. Forge the Thunderbolt!

**BG D. Scott McKean**
49th Chief of Armor

# GUNNER'S SEAT

**CSM Michael Clemens**
**Command Sergeant Major**
**U.S. Army Armor School**

# Manning, Equipping and Resourcing Cavalry Organizations

*"The importance of reconnaissance cannot be overemphasized. There is typically a battle which precedes the battle – a confrontation of opposing reconnaissance units – and the winner of that preliminary battle is most often the victor in the main event." –BG Edwin S. Leland Jr.*

Is the Army adequately organized and equipped to perform effective reconnaissance and security operations? As the force reorients on a decisive-action training environment, maintaining and potentially expanding organizations capable of fulfilling the roles outlined in the Army's capstone concept are paramount. ("Countering enemy adaptations and retaining the initiative in future armed conflict will require a balance of forces capable of conducting effective reconnaissance operations, overcoming increasingly sophisticated anti-access technologies, integrating the complementary effect of combined arms and joint capabilities and performing long-duration area security operations over wide areas.") These should be guiding principles of both our organization and capability. In an Army tasked to operate in expeditionary, austere environments at the limit of extended lines of supply, an organized cavalry squadron becomes increasingly significant to a higher headquarters in meeting the demands of Army 2025.

Countering enemy adaptations and retaining – or, better yet, exploiting – the initiative is certainly a hallmark of our cavalry organizations. Nothing better illustrates this point than 3rd Squadron, 7th Cavalry's operations around the Iraqi city of Najaf in 2003. At 6 a.m. March 25, 3/7 Cavalry attacked Objective Floyd. Fighting took place in a sandstorm, which reduced visibility to 25 meters, causing the Americans to rely on thermal imaging to target Iraqi troops. At 10:43 a.m., U.S. Soldiers reached the bridge and found it to be free of wiring for detonation.

After crossing the bridge, the 3-7 Cav sent Troops A and B north to secure a dam and bridge and to set up blocking positions to further isolate Najaf. This group came under attack by hundreds of Iraqi paramilitaries, who snuck up to close quarters during the sandstorm. At the same time, Troop C, securing the bridge around Objective Floyd, came under heavy attack by Iraqi forces charging their positions in civilian vehicles, which even went so far as to ram an M3 Bradley with a city bus and crash a loaded fuel tanker through American lines. While Troop B was moving northward, the unit was ambushed by Iraqi forces at close range. During this engagement, two Abrams tanks and one Bradley were knocked out, and their ammunition ignited. However, the blast panels worked as they were designed, and no crewmen were killed. Troop B continued to fight and reached their blocking positions as nightfall put an end to the Iraqi attacks.

After nightfall March 26, 2nd Battalion, 69th Armored Regiment, attacked south from Objective Jenkins in an attempt to link up with 7th Cavalry Regiment at Objective Floyd and thereby complete the encirclement of Najaf. That night they successfully linked up with 7th Cavalry.

On March 27, 7th Cavalry withdrew after 120 hours of continuous combat. This certainly demonstrates a cavalry squadron's ability to counter adaptation and exploit initiative.

Conducting effective reconnaissance operations and integrating the complementary effects of combined-arms capabilities is another area where the cavalry, properly organized and employed, excels. An outstanding example comes from the account of 113th Cavalry Group's operations in XIX Corps' zone in Belgium in early September 1944. The 113th Cavalry Group was to reconnoiter aggressively east and northeast in advance of XIX Corps. The group was to conduct a reconnaissance of five main routes the corps would use, reporting road and bridge conditions and enemy positions while bypassing any heavy resistance. The two-squadron cavalry group (113th and 125th cavalry squadrons) were augmented by Company B, 82nd Engineers, and Company C, 803rd Tank Destroyer Battalion.

Commencing Sept. 5, the group conducted reconnaissance over a 20-mile front for more than 125 miles.

Encountering resistance ranging from light to determined, the group moved on its own for three days, brushing aside, defeating or bypassing the enemy until it reached the Albert Canal and the fortress of Eben Emeal, where it established a screen and was joined by 30th Infantry Division. After conducting a battle handover with the 30th, the 113th crossed the canal 35 miles south of its position and pushed north against stiff opposition until the Soldiers secured the bridge south of Vise, which allowed 30th Infantry to cross. Effective reconnaissance, led by a cavalry organization, allowed a corps to retain the initiative while its divisional assets were conducting refueling-and-resupply operations, and then attack along the most advantageous route and seize a crossing into Holland.

Long-duration area security operations are the final trademark capability of well-trained cavalry organizations. During the Vietnam War, 11th Cavalry Regiment – properly task-organized and equipped – conducted Operation Kittyhawk April 1967 through March 21, 1968. The regiment was tasked to secure and pacify Long Khánh District. It achieved three objectives: Viet Cong (VC) were kept from interfering with travel on the main roads; Vietnamese were provided medical treatment in civic-action programs like Medical Civic Action Program, or MEDCAP, and Dental Civic Action Program, or DENTCAP; and, finally, reconnaissance-in-force (RIF) operations were employed to keep the VC off balance, making it impossible for them to mount offensive operations.

Immediately following Kittyhawk were Operations Emporia I and II – a road-clearing operation with limited RIF missions by the 1st and 3rd squadrons in Long Khánh District – and Operations Valdosta I and II, a regimental-sized operation. Valdosta's purpose was to provide security at polling places during elections and to maintain reaction forces to counter VC agitation. Because of the operation, 84.7 percent of eligible voters cast ballots in Long Khánh District in the first general election and 78 percent in the second.

Wide-area security missions conducted for more than two years across the 200 kilometers of the Long Khanh District allowed both II U.S. Field Force and the Army of the Republic of Vietnam's 3rd Corps freedom of maneuver.

In closing and as demonstrated by real-world examples, the U.S. Army's cavalry organizations – when properly manned, equipped and resourced – have a unique function on our combined-arms teams. The value of an organization missioned and trained from the outset to conduct reconnaissance and security missions with leaders well-versed in the application of those specialized skills is invaluable to our formations and cannot be cheaply duplicated. It is a skill the expeditionary Army cannot afford to lose.

## Acronym Quick-Scan

**RIF –** reconnaissance in force
**VC –** Viet Cong

# FROM THE BORESIGHT LINE

# Flareouts

**by William D. Darnell**

"Gunner, Sabot tanks, near tank."

"Identified, Range 1600."

"Up."

"Fire."

"On the way."

***Boom!***

The tower announces "cease fire!" over the radio. You just had a flareout. Reports of flareouts from the armor community are becoming a more common occurrence as of late.

A *flareout* is a secondary blast envelope at the muzzle end of the gun tube that could be a precursor to a *flareback*. To mitigate the possibility of a flareback or flareout, closer attention to the performance of maintenance on the bore evacuators must occur.

A *flareback*, in simple terms, is unspent propellant from the round that mixes with oxygen and creates a fireball from the breechblock after the round has been fired during case base ejection. A *flareout* is a secondary blast envelope at the muzzle end of the gun. While the gun is doing what it is supposed to do with a flareout, the situation is ideal for a flareout to become a flareback.

So what to do?

After a flareback or flareout is experienced, follow the procedures outlined in Technical Manual (TM) 9-2350-388-10-3, WP 0464, Page 0464-4, "Flareback of Burning Gas into Turret after Firing Main Gun." There are three steps, and the procedure is all maintenance-related.

The M1A1/ M1A2 main battle tanks have a M256A1 gun tube that uses an eccentric pressure scavenging system, which aids in the removal of spent propellant gases from the gun tube. "Eccentric" means that the gun and bore evacuator do not share a common center. This allows the gun to

be depressed lower over the back deck of the tank.

As the projectile travels down the gun tube, it passes the bore-evacuator holes. Propellant gases expand into the bore evacuator, storing pressure to aid in the evacuation of spent propellant gases. Pressure varies due to round type and atmospheric conditions. The first round can reach up to 200 pounds per square inch in the bore evacuator because of a secondary reaction with the air in the evacuator. Bore-evacuator holes are drilled at 30-degree angles toward the muzzle end of the gun tube to allow the flow of gases to exit.

Once shot exit occurs, rapidly expanding propellant gases create a blast envelope at the gun's muzzle. Flareouts create a second blast envelope. This is an indication that not all gases are being spent at the proper time. While, in this case, the bore evacuator is working to expel all unspent gases, the fear is that a flareback may occur at anytime.

The bore evacuator asserts itself as gun-tube pressure drops and allows the gases to exit the muzzle end of the gun. Normally, that is the white puff of smoke you see at the end of firing. The flareout is that white puff of smoke that has turned into a second blast envelope. The scavenging part of the system is the difference between low pressure from the breech opening to the bore-evacuator holes and high pressure from the bore-evacuator holes to the muzzle end of the gun, creating a partial vacuum.

Past unit-maintenance standard operating procedures would have us clean the bore evacuator and then slap a healthy coat of GAA, or "grease aircraft automotive," on it. The thinking process behind this is it would prevent rust and be easier to clean after firing. This practice could potentially clog up the bore-evacuator holes, not allowing the bore evacuator to do its job. The

proper way to maintain the bore evacuator is to use "cleaner lubricant and preservative" (CLP), National Stock Number (NSN) 9150-01-054-645. Using CLP provides rust protection while limiting the chance of the bore-evacuator holes becoming clogged.

Apart from enforcing safety, equipment inspection is potentially one of the most important areas a tank crewman can focus on. According to TM 9-2350-388-10-3, WP 0547, Page 0547-2 ("Service Bore Evacuator"), note the following warnings and then follow the procedures step by step.

**Warning**

"Use extreme care when servicing bore evacuator. An improperly assembled or damaged bore evacuator (punctured, dented or cracked) can result in a buildup of smoke and toxic fumes in the tank or a flareback of burning gases into the turret. These are hazardous conditions that can result in death or injury.

"Tank gun tubes which have fired depleted uranium (DU) ammunition may have DU residue on the inside surfaces and the bore evacuator. This contamination may be both removable and fixed (remaining for the life of the tube). DU emits very low levels of radiation. Personnel cleaning the gun tube or bore evacuator must wear rubber/ latex gloves (even if the gloves have been worn, always wash hands after cleaning gun tube). Do not touch gloves to face or other parts of body. Wash hands after removing gloves. Depress the gun tube as much as possible to prevent contaminated cleaning fluid from flowing into breech or crew compartment.

"Rags and cleaning fluid generated during maintenance on the bore evacuator or during the gun-tube cleaning process must be disposed of as low-level radioactive waste. Mop up all excess cleaning fluid with rags, and (double) bag all trash, including gloves, in two plastic bags. Ensure bag is tagged

It is vital to follow procedure as out-lined to prevent missing a step. Here at the Abrams Master Gunner Course, we have a saying: "Read, Understand and Do." I want to explain what to check and what deficiencies you should try to identify.

Once everything is disassembled (Fig-ure 1), start with inspection of the bore evacuator itself. Check the bore evacuator for any type of damage (Fig-ure 3). Check for any rub marks, dents, chips or cuts on any part of the bore evacuator. Check around the angled



seat ends (Figure 2) for any type of damage. Any damage to this area will not allow the seals to seat properly and will allow gases to leak out. The bore evacuator will not pressurize properly and may cause a loss of ve-locity of the shot or possible flareback. If gases are leaking, you may see black-powder marks around seal areas. This is a sign that seals or bore evacuator may be damaged.

While checking the bore evacuator, look at the bore evacuator itself and pay attention to the bottom portion. As you drop the gun over the back deck, your bore evacuator takes a beating. Report any faults found to field maintenance.

After inspecting the bore evacuator, inspect the seals, which are called packing (Figure 4) in the TM. Check them for tears, cuts, gouges or defor-mation. Don't stretch them out when removing and installing them. Packing should be replaced semiannually in ac-cordance with the TM 9-2350-264-1-3 mandatory-re-placement-parts list, Page 0511-102, Table 2, Item 27. If new packing is re-quired, notify field maintenance.

Inspect the mount-ing hardware, pay-ing attention to the evacuator nut (Fig-ure 4, collar) for damage and ensur-ing it is not cross-threaded. Check the plunger to en-sure it moves free-ly. Pay attention to the screw head that it is not stripped. Look at the retaining ring for the locking pins (Figure 4); ensure they are present and not damaged.

Next, move to the outside part of the gun tube, where the bore evacuator sits during normal operations (Figure

5). Inspect it for corrosion. If pitting exceeds .02 inches deep on unpainted, or .04 inches deep on painted surfac-es, and covers 80 percent of the sur-face area, notify field maintenance. Check the bore-evacuator holes (Fig-ure 6) to ensure they are not clogged. Pipe cleaners (NSN 9920-00-292-994) are the key to success. Use only CLP to clean and lubricate the surface and the hardware parts. You can use a light coat of GAA (NSN 9150-00-145-026) on the packing.

Performing all maintenance and sched-uling maintenance procedures in ac-cordance with the proper TMs will keep the tank in operating condition. The checks are to find, correct or re-port problems. This will prevent short-comings on the equipment you are as-signed. Understanding the importance of maintaining your equipment will en-sure the readiness of the equipment and the unit.

*Will Darnell is a civilian master-gunner instructor at the Abrams Master*

**Figure 1, top; Figure 2, center; and Figure 3, bottom.** (*Photos by SFC John B. Vandewater and SFC Craig S. Barringer, Master Gunner Mainte-nance Branch.*)
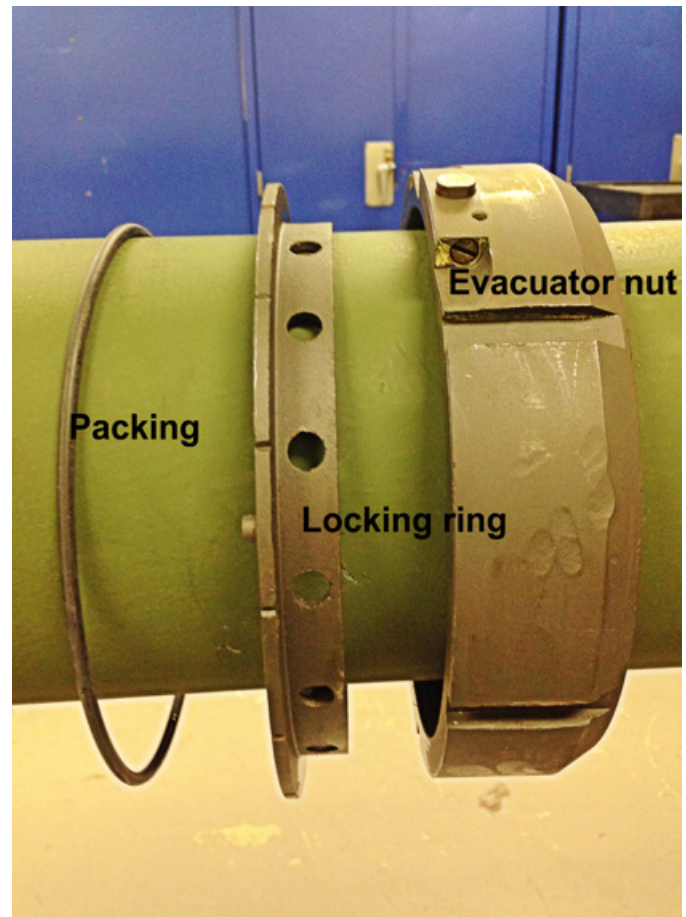


**Figure 4.** (*Photo by SFC John B. Vandewater and SFC Craig S. Barringer, Master Gunner Maintenance Branch.*)

**Figure 5, top, and Figure 6, bottom.**
*(Photos by SFC John B. Vandewater and SFC Craig S. Barringer, Master Gunner Maintenance Branch.)*

Gunner Course, Fort Benning, GA. While serving in the Army, he served as battalion master gunner for 2nd Battalion, 37th Armored Regiment, Friedberg, Germany; platoon sergeant, Company C, 2nd Battalion, 37th Armored Regiment, Friedberg; squadron master gunner, Headquarters and Headquarters Troop, 1st Squadron, 16th Cavalry Regiment, Fort Knox, KY; Abrams master-gunner instructor/ writer, M Troop, 2nd Squadron, 16th Cavalry Regiment, Fort Knox; and company master gunner; Company C, 4th Battalion, 64th Armor Regiment, Fort Stewart, GA, and Company C, 2nd Battalion, 72nd Armor Regiment, Camp Casey, Korea. His military schooling includes the Primary Leadership Development Course, Basic Non-commissioned Officer Course, M1A1 Master Gunner Course, Advanced Non-commissioned Course and M1A2 Master Gunner Transition Course. Mr. Darnell holds an associate's degree in general military science from Central Texas College. His is the recipient of a Bronze Star medal and two Army Commendation Medals with valor device.

# M256, 120mm Abrams Main Gun Flareout

**by Zachary Jablonka and Wakeland K. Kuamoo**

Almost daily, Soldiers and Marines are conducting live-fire training with the Abrams main battle tank. This training includes use of the 120mm M256 main gun system. It is critical that this system perform as designed to maximize training and ensure safety of the crew.

Several tank crews have recently experienced a little-known event called a flareout. A flareout occurs shortly after a main gun is fired. Essentially, it is a secondary flame/flare seen outside the muzzle of the main gun after the large initial blast (flame/fire) dissipates. The photos show a flareout.

A flareout takes place outside the gun and is not seen as a safety issue. However, the concern is that this event could be a prelude to a flareback, which can be hazardous to a crew inside a tank turret. A flareback is detailed in Training Manual (TM) 9-2350-264-20 and is described as occurring when fuel-rich gases formed by the normal burning of propellant enter the crew compartment, mix with oxygen and are ignited by some source. These gases are a normal byproduct of firing, and the function of the bore evacuator is to push them out the muzzle rather than allow them to drift back into the turret.

No firm cause for a flareout has been yet determined. Training and Doctrine Command (TRADOC) Capability Manager-Armored Brigade Combat Team (TCM-ABCT); Armament Research, Development and Engineering Center (ARDEC), Watervliet Arsenal, NY; project manager (PM), Maneuver Ammunition Systems (MAS), Picatinny Arsenal, NJ; and other technical organizations continue efforts to determine a cause for a flareout as well as corrective actions for a tank crew/unit to take should a flareout occur.

As efforts continue toward resolution of this issue, a crew/unit checklist has been developed for use when a flareout occurs. (See next page.) In the event of a flareout, the tank crew should immediately cease fire and use the checklist to gather critical information about the event. If a fault is found, this fault must be corrected before main-gun live fire of the tank can continue. If no fault is found, the unit commander will decide when to place the tank back into a live-fire mode. The unit should continue to monitor the performance of this tank to ensure no further issues develop.

It is important that this crew checklist be accurately filled out and sent to the listed points of contact as soon as possible. This information will be a key part of identifying causes, concerns and proper corrective action to prevent a flareout event.

*Zachary Jablonka is a project manager for the ARDEC project officer, Direct Fire Operations and Support, Watervliet Arsenal, NY. He holds a bachelor's of science degree in mechanical engineering from Rensselaer Polytechnic Institute and a master's of science degree in engineering and management systems from Union Graduate College.*

*Wakeland Kuamoo is an ammunition lead for TCM-ABCT's Capabilities Development and Integration Directorate, Fort Benning, GA. His past duty assignments include large-caliber ammunition, PM-MAS, Fort Benning; large-caliber ammunition, Joint Munitions Command, Fort Knox, KY; senior live-fire trainer, Bosnia and Herzegovina; and while on active duty, chief of the Master Gunner Branch, Fort Knox. His military schooling includes the Advanced Noncommissioned Officers' Course, Master Gunner Course, M60A1/A3 and M1A1/A2. Mr. Kuamoo holds an associate of arts' degree from Pike Peaks Community College and a bachelor's of arts degree from the University of Louisville.*

## Acronym Quick-Scan

**ARDEC –** Armament Research, Development and Engineering Center
**PM-MAS –** project manager, Maneuver Ammunition Systems
**TCM-ABCT –** TRADOC Capability Manager-Armored Brigade Combat Team
**TRADOC –** (U.S. Army) Training and Doctrine Command



**Figure 1. Initial blast, flame and fire.**



**Figure 2. Pause, no blast effects.**



**Figure 3. Secondary blast, flame and fire.**

# Flareout Checklist

**Background:** A flareout is an event when a flame is witnessed during bore evacuation. Bore evacuation occurs about half a second after the main shot. During bore evacuation, the expelling propellant gases ignite. Data collection after a flareout occurs has been low. It is requested that as much data listed below as possible be collected once you see a flareout. Please use the following items as a checklist.

**Action:** If a flareout is witnessed during live fire, the unit should cease firing the affected tank. The unit master gunner / officer in charge should use the below checklist to aid in reporting and data collection. The unit should also verify if this is an installation reportable event. Photos of the items can be included or attached to this report as necessary.

Reporting unit: _____

POC: Name, rank, unit _____

POC: Contact information: phone, email _____

Alternate POC: _____

Immediately after the flareout event:

| Characteristic | Notes |
|---|---|
| Day/date/time of incident | |
| Firing-range site of incident | |
| Vehicle serial/bumper number | |
| Gun-tube serial number: Bore-evacuator SN | |
| Environmental conditions at flareout: <br> -Temperature <br> -Rain, sun, overcast, etc. <br> -Wind speed/direction | |
| Firing posture: <br> -Stationary or moving; behind berm, open area, forest, valley, etc. | |
| Ammo being fired: <br> -Number of rounds fired prior to flareout <br> -Model and lot number <br> -Condition in accordance with TM-10 <br> -Other vehicles firing same type/lot <br> -Storage conditions prior to firing <br> -Any irregularities with ammo? Damage / performance / discoloration | |
| Tank crew/duties: <br> -Any injuries <br> -Loading of round <br> -Aft cap extract properly <br> -Excessive fumes | |
| Flareback: <br> -Any flareback witnessed <br> -Timing of potential flareback | |

Following on, we request information collected by crew and maintenance personnel:

| Characteristic | Notes |
|---|---|
| External bore-evacuator condition:<br>- Damage/crack/collar loose, etc. | |
| Inside bore evacuator:<br>-Bad or missing seals<br>-Build-up of firing residue<br>-Presence of foreign materials, CLP, large carbon pieces, ammunition material | |
| Gun tube:<br>-Chamber area serviceable<br>-Breechblock serviceable, free movement up and down, extractors serviceable<br>-Gun-tube length, serviceable<br>-Muzzle end, no excess burn, grease, foreign materials<br>-Bore evacuator holes clear | |
| Breech cam:<br>-Setting, F/S, count teeth from S position<br>-Clean and serviceable | |
| Stub-base deflector tray:<br>-Free movement up and down<br>-Freefall when activated | |
| Last-known service dates:<br>-Breech mechanism service<br>-Tube-cleaning / inspection<br>-Bore-evacuator service<br>-Attached gun card if possible | |
| Additional remarks | |

**Note:** Upon completion of this report, all faults found must be corrected before the vehicle is returned to mission capable. If no faults are found, the unit with maintenance personnel should determine vehicle capability.

Send report to the following personnel:
• Benet Labs: Zachary P. Jablonka, email zachary.p.jablonka2.civ@mail.mil, phone (518) 266-5813.
• TCM-ABCT: Wakeland K. Kuamoo, email wakeland.k.kuamoo.ctr@mail.mil, phone (706) 545-6569.

It is critical that reports are sent forward no later than 48 hours from the flareout incident. Phone reports are authorized pending written notification.

# FROM THE SCREEN LINE

# Cavalry Scouts in the Army of 2020:

## A 'Spot Report' on Scout Platoon Reorganization to Standard Scout Platoons

**by LTC Anthony E. Lowry and Peter W. Rose II**

*"The scout must be capable of finding the enemy and knowing what he sees. He should be able to go forward to find the enemy and have the firepower with and behind him to get out of trouble. Most of all, he must be capable of semi-independent operations on the battlefield. He must be the most clever of all fellows. He takes individual actions that are not dictated by the actions of what other squads or platoons are taking; no one is constantly looking over his shoulder." –GEN Crosbie Saint*

The Army must field the right combination of forces to enable commanders to seize, retain and exploit the initiative across the full range of military operations. To partially satisfy this requirement, the Army is moving forward with the design of the brigade combat teams (BCTs) that will make up the Army of 2020. BCTs and maneuver battalions require mounted and dismounted reconnaissance as a basis for success in unified land operations.

Reviews of reconnaissance and security (R&S) capabilities conducted at the Maneuver Center of Excellence (MCoE); recent observations from combat training centers (CTCs); past Training and Doctrine Command (TRADOC) Analysis Center studies and analysis; and consultation with corps, division and BCT commanders have collectively revealed deficiencies across the doctrine, organization, training, materiel, leadership and education, personnel and facilities (DOTMLPF) domains that limit the Army's ability to conduct R&S operations. The MCoE and TRADOC are working collaboratively in conjunction with the Army Staff to meet the Army's current and future needs for scout platoons. The result is the standard scout platoon (SSP), which is in the final stages of the Army approval process; we anticipate implementation to begin in Fiscal Year (FY) 2016.

We are close to fully standardizing scout platoons at 36 scouts and

leaders with common equipment, with the exception of the scout platforms used in the armored BCT (ABCT), infantry BCT (IBCT) and Stryker BCT (SBCT). Cavalry-squadron scout platoons are expected to begin adopting the new modified tables of organization and equipment (MToEs) in FY16. With any new force-design change, some small adjustments maybe necessary after we field the dismounted scout squads for the first time. It has taken a deliberate seven-year process, conducted in a resources-competitive environment, to reach this point.

The shortcomings of the current scout designs came to the fore in Iraq and Afghanistan with unanimous comments from commanders, platoon leaders and noncommissioned officers (NCOs). Their comments were reinforced by Department of Defense, Army and TRADOC leader visits to deployed or deploying Army units. All stressed that scout platoons had organizational challenges that limited their ability to perform their doctrinal missions, an assessment verified by the Center for Army Lessons-Learned in 2007.

## Armor Warfighting Conference

In May 2007, the Armor Warfighting Conference convened a working group comprised of combat veterans with extensive scout-platoon experience in ABCTs, IBCTs and SBCTs. Their purpose was to examine the organization of the mounted scout platoon, identify deficiencies and recommend solutions. At the conference's conclusion, the workgroup presented a recommendation to its attendees and to TRADOC's commanding general that became the genesis of the "6 x 36 standard scout platoon." The group corroborated feedback from the field and recommended that the TRADOC commanding general direct his director of force development to determine how to implement 36-man scout platoons across all BCTs.

Developed six years after the 2007 Armor Warfighting Conference, today's reconnaissance and security forces' imperatives (see adjacent sidebar) reflect in great part the combat experience the 2007 working group applied to their process.

One of the primary focuses of the 2007 workgroup was examining the tasks and personnel requirements for a scout platoon organized into three sections (two sections in the case of the SBCT mounted scout platoon). The group performed the analysis examining the requirements similar to those reflected in combined-arms maneuver (CAM) and wide-area security (WAS). The 2007 workgroup considered a scout squad to include the vehicle crew and the scouts who dismounted from the vehicle. The workgroup considered the section to be the grouping of scout squads based on mission, enemy, terrain and weather, troops and

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## R&S imperatives

Army R&S forces must be able to:

• Conduct operations consistent with the fundamentals of R&S.

• Develop the situation rapidly in close contact with the enemy and civilian populations.

• Conduct stealthy reconnaissance and fight for information dependent on the mission.

• Employ appropriate combinations of mounted and dismounted reconnaissance techniques.

• Conduct combined-arms air-ground operations to fight for information, evaluate that information and answer priority information requirements.

• Provide early and accurate warning of enemy operations to provide time and maneuver space to react to enemy operations.

• Protect the force from surprise and develop the situation to provide the commander with the options to employ the force effectively.

• Integrate joint capabilities as divisions, corps and joint task forces transition to the close fight.

• Conduct R&S over wide areas.

• Operate effectively in multinational environments and integrate indigenous forces.

</div>

support available, time available and civil considerations (METT-TC). Today's SSP concept, on the other hand, describes a scout section as having a mounted scout squad with two or three scout vehicles and their crews, and a dismounted scout squad of six scouts. The important commonality between today's SSP concept and the 2007 workgroup's interpretation of "scout" was that both descriptions indicated the same general capabilities in terms of scouts and equipment.

The 2007 workgroup determined that if a two-squad scout section could accomplish its doctrinal tasks associated with a screen and dismounted reconnaissance from the short halt in mounted operations, a platoon with three sections would also be able to accomplish its doctrinal missions of *route*, *zone*, *area reconnaissance* and *screen*. In other words, the group considered the scout section consisting of two scout squads as the essential building block of the scout platoon. Postulating a screen mission lasting for more than 24 hours, they assessed that a scout section should provide:

• A dismounted observation post (OP) (two to three Soldiers);

• A local security team (two Soldiers);

• Two dismounted patrols, each less than less than six hours in duration (six personnel each);

• Minimal crewing of vehicles (operating weapons, optics, Blue Force Tracker and radios: two personnel); and

• Six hours' duration for rest, hygiene, sustenance, maintenance, resupply and preparation for future operations (all personnel).

The 2007 warfighter analysis determined that during dismounted reconnaissance at the short halt in mounted operations, a scout section could perform its key duties if it had enough personnel to provide two Soldiers crewing each vehicle, two personnel providing local security and six Soldiers conducting a dismounted patrol, for a total of 12 scouts.

The presentation to TRADOC's commanding general and assembled conference attendees produced nearly unanimous agreement with the warfighter troops-to-tasks analysis. The

assemblage concluded that a 36-man scout platoon, if designed with six squads, also offered the versatility of operating in two three-squad sections when METT-TC factors compelled.

Force-structure resourcing challenges delayed implementation until 2010, when scout platoons began to transition. ABCT scout platoons grew to 36 personnel while retaining their three Bradley Fighting Vehicles (BFVs) and five uparmored humvees. IBCT cavalry-squadron mounted scout platoons grew from 18 to 24 personnel while retaining their six uparmored humvees. SBCT cavalry-squadron scout platoons grew from 17 to 23 scouts, lost their four human-intelligence Soldiers and retained their four Stryker reconnaissance vehicles (RVs).

TRADOC's long-term plan was to complete the standardization when IBCTs fielded scout vehicles with a capacity for six or more personnel and SBCT scout platoons could be resourced with two more Strykers per scout platoon. Both of those outcomes were challenged by the lack of available platforms. The Army's scout platoons first saw the six-scout increase in 2010 when tables of organization and equipment (ToEs) and MToEs were updated.

## Remaining gaps

While the mounted scout platoon's six-man increase across the BCTs is a significant step forward, several major gaps remain in BCT scout platoons. The ABCT's scout platoon humvee-Bradley mix precluded the full range of bounding techniques, successive and alternating; the design also inefficiently resourced scout squads at five personnel and two squad sections at 10 scouts. Stryker scout platoons with four squads and four Strykers were not capable of conducting route reconnaissance – given the doctrinal requirement to simultaneously reconnoiter adjacent terrain and lateral routes on both sides of the route. IBCT mounted scouts lacked cross-country mobility and sufficient dismounted reconnaissance capability. Their humvees did not have the ability to carry the required number of scouts or other personnel that augment the platoon's capabilities.

The next step in creating standardized, sufficiently manned and equipped mounted scout platoons is embodied in a force-design update (FDU) (recommended ToE changes) currently in staffing at Headquarters Department of the Army (see Figure 1). The goal is to standardize 36-man mounted scout platoons with six squads and six scout platforms.

For the ABCT, in Phase I, only the cavalry squadron's 36-man scout platoon
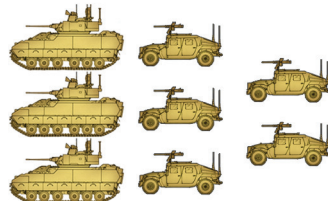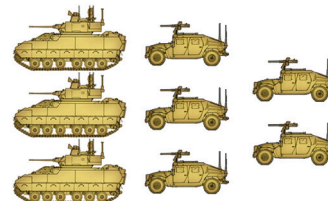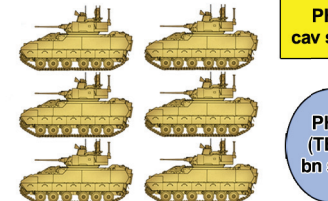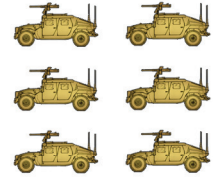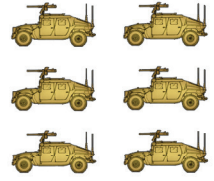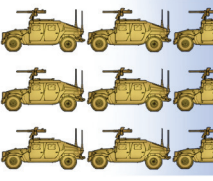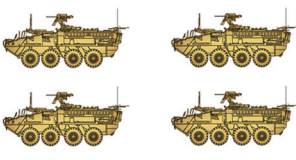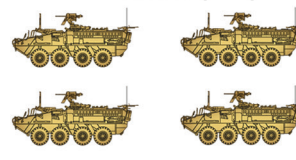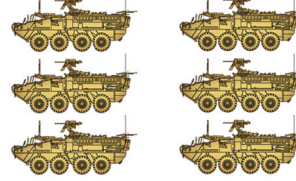


| | Modular Design 2005 | BCT Holistic Review Design 2010 | Standardized Scout Platoon Design 2016 |
|---|---|---|---|
| **ABCT** sqdn & bn sct | 30 scouts — 3x8-man scout sections & HQ sec | 36 scouts — 3x10-man scout sections & HQ sec | 36 scouts — 3 mounted & 3 dismounted scout sqds (PH I cav sqdn; PH II (TBD) bn scts) |
| **IBCT** sqdn | 18 scouts — 3x6-man scout sections | 24 scouts — 3x8-man scout sections | 36 scouts — 3 mounted & 3 dismounted scout sqds (Future, TBD 6 lt recon vehicles) |
| **SBCT** sqdn & bn sct | Sqdn: 17 scouts (19D) & 4 HUMINT; Bn: 24 scouts (11B) — 2 scout sections: 10 or 11 personnel | Sqdn: 23 scouts (19D); Bn: 24 scouts (11B) — 2 scout sections: 11 or 12 personnel | Sqdn & bn: 36 scouts (19D) — 3 mounted & 3 dismounted scout sqds |

Figure 1. Transition to SSPs.

with 19D scouts trades in its five Long-Range Advanced Scout Surveillance System-equipped uparmored humvees for three more BFVs. Scout-platoon BFVs will require bench seating to allow the platform to carry the six-man scout squad and, when required, one or two augmentees. The M3 Cavalry Fighting Vehicle (CFV) to M2 BFV conversion begins this year and concludes in FY16. ABCT battalion scouts will have to wait a little longer for Phase II of the FDU providing the additional three Bradleys; we are not sure when this will occur.

The SBCT cavalry troop reorganizes from three scout platoons of four Stryker RVs and 23 personnel to two scout platoons, each with six Stryker RVs and 36 scouts (35 19Ds and the 19C platoon leader). Stryker battalion scout platoons increase from four Strykers and 24 Soldiers (23 11Bs and the 11A platoon leader) to six Strykers and 36 Soldiers (35 19Ds and the 19C platoon leader).

The IBCT cavalry squadron consolidates its two mounted troops and a dismounted reconnaissance company into two mounted cavalry troops. The troops' scout platoons with 19Ds grow from 24 Soldiers and six uparmored humvees to 36 personnel with nine uparmored humvees. The MCoE is working to replace the nine humvees with six light reconnaissance vehicles, an advancement that is several years away from occurring. Each light recon vehicle will have a capacity for six scouts and one or two augmentees. The Army is beginning the process to examine the requirements of the IBCT's battalion scout platoons. While the rationale for scout-platoon standardization is compelling, the demand signal for the change does not appear to be strong in the IBCT community.

Each BCT to some degree trades off a current capability to achieve the ability to adequately conduct the full range of scout-platoon missions while, for the first time, gaining standardization and improved Soldier and leader interoperability. In all cases, each BCT eliminates scout-platoon capability gaps.

A key feature of the SSP design is the designation of dismounted scout squads and mounted scout squads. *For the first time since mechanization, our Army will have standardized scout squads.* The 18 dismounting scouts will be organized into three six-Soldier scout squads – organized, trained and equipped to conduct dismounted reconnaissance. The scout platoon's vehicles and crews will be organized into three mounted scout squads as well with two vehicles per squad in an ABCT or SBCT mounted scout squad and three vehicles in the IBCT mounted scout squad. Scout platoons will have the flexibility to organize into two scout sections or three scout sections, depending on the factors of METT-TC.

The SSP FDU provides all three BCTs' cavalry-squadron scout platoons and SBCT battalion scout platoons with the means to perform all their doctrinal missions by resourcing what many believe to be their foundational functions of scout-section dismounted reconnaissance at the short halt and scout-section establishment of a long-duration OP as a part of a platoon screen. The ABCT squadron's scout platoon becomes fully capable of developing the situation through action, employing appropriate combinations of mounted and dismounted forces, and fighting for information. Key to mounted tactical movement is the ability of one BFV to overwatch another. The Stryker scout platoons and IBCT cavalry-squadron scout platoons gain the ability to conduct route reconnaissance; execute security operations in depth; employ appropriate combinations of mounted and dismounted forces; and rapidly deploy dismounted forces forward.

The SSP's doctrine, training, personnel and leader-development implications are significant. From the standpoint of doctrine and training, standardization simplifies training and operations for scout platoons. With similarly manned organizations, doctrine can describe a uniform set of operations and tactics for any dismounted element of any scout platoon. Doctrine and training products can be simplified. Training will become standardized, as each type of platoon will perform similar tactics, techniques and procedures (TTPs) that are no longer adjusted to

ToE/MToE equipment and manning differences. Standardization will allow newly arrived leaders and Soldiers to more rapidly integrate into their new units as they are able to apply the doctrine and TTPs practiced in their former units. Commanders, leaders and staffs will have an improved understanding of scout-platoon capabilities.

## Proof of principle

The U.S. Army recently concluded the SSP's proof of principle (PoP). The study's purpose was to determine whether the following hypothesis of the SSP proved correct in a decisive-action training environment at the National Training Center (NTC). The hypothesis was that an ABCT scout platoon equipped and manned using the SSP organization demonstrates increased capabilities to perform reconnaissance and security missions during CAM and WAS.

The 1st Squadron, 7th Cavalry Regiment (Garryowen), from 1st Cavalry Division served as the test unit and reorganized all six of its scout platoons into the six Bradleys and 36 Soldiers formation. From September 2013 through March 2014, the SSP analysis team collected more than 600 discrete data points with the goal of conducting an operational assessment to validate the organization's operational effectiveness in versatility, survivability, protection, mobility and firepower. The PoP also identified shortcomings in DOTMLPF as they pertained to the 6x36 force design. Data collection occurred primarily by field observations, interviews, surveys and panel discussions with the Soldiers, NCOs and officers assigned to the unit. The analysis team also used on-site observations of home-station training events and operations at NTC. These observations were augmented by interviews and surveys conducted with observer/coaches/trainers assigned to 1-7 Cav during NTC Rotation 14-04.

The PoP results were overwhelmingly positive. The change allowed the entire platoon to traverse terrain inaccessible to uparmored humvees and facilitated the rapid emplacement of the platoon during reconnaissance and surveillance operations. The three more BFVs dramatically increased

platoon lethality with three more 25mm cannons, more anti-tank missiles and 50 percent more dismounted Soldiers. The additional Bradleys improved scout-platoon protection and survivability, and increased dismounted scout coverage for local security, patrolling and manning of OPs. Finally, the change increased scout-platoon versatility in CAM and WAS missions and clearly improved mounted/dismounted integration. The report can be accessed at https://www.milsuite.mil/book/docs/DOC-141790.

The process of designing the most capable ABCTs, IBCTs and SBCTs during a period of significant fiscal limitations continues with the Army focused on meeting its global force requirements while retaining the lessons-learned from 12 years of war. All BCTs depend on effective reconnaissance to ensure mission success. These capabilities and the associated capability gaps across all the DOTMLPF domains remains one of the MCoE's main efforts. Providing the force with properly equipped, competent, trained scouts and leaders will ensure their success as they conduct the missions that will paint a picture of the modern battlefield for the combatant commander.

Our staff welcomes your feedback and the opportunity to discuss the analysis, findings and recommendations. We continue to work as the user representative to Department of the Army for the R&S community. We look forward to providing observations, insights and lessons and TTP collected during future unit visits to home station and the CTCs.

*"You can never have too much reconnaissance." –George S. Patton Jr.,* **War as I Knew It**, *1947.*

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*Pete Rose II is the executive officer for TCM-Recon in CDID, MCoE, Fort Benning, GA. Previous Department of the Army positions include executive officer, Battlefield Surveillance Brigade Capability Management Team, Fort Knox, KY, and Fort Benning; and armor and cavalry force designer, Fort Knox. As a defense contractor, he was chief of Vitronics' 2D Stryker Cavalry Regiment doctrine, organizations, training and education, material, leader development and personnel integration team at Fort Knox. Mr. Rose is retired from the Army, where he served in predominantly cavalry positions. His military schooling includes Ranger School, Armor Officer Basic Course, Armor Officer Advanced Course, Command and General Staff College and Defense Institute for Security Assistance Management. Mr. Rose holds a bachelor's of science degree from Oregon State University in both business administration and military science. He is a recipient of the General Frederick M. Franks Award.*

## Acronym Quick-Scan

**ABCT –** armored brigade combat team
**BFV –** Bradley Fighting Vehicle
**BCT –** brigade combat team
**CAM –** combined-arms maneuver
**CDID –** Capabilities Development and Integration Directorate
**CTC –** combat training center
**DOTMLPF –** doctrine, organization, training, materiel, leadership and education, personnel and facilities
**FDU –** force-design update
**FY –** fiscal year
**IBCT –** infantry brigade combat team
**MCoE –** Maneuver Center of Excellence
**METT-TC –** mission, enemy, terrain and weather, troops and support available, time available and civil considerations
**MToE –** modified table of organization and equipment
**NCO –** noncommissioned officer
**NTC –** National Training Center
**OP –** observation post
**PoP –** proof of principle
**R&S –** reconnaissance and security
**RV –** reconnaissance vehicle
**SSP –** standard scout platoon
**SBCT –** Stryker brigade combat team
**TCM-Recon –** TRADOC Capability Manager-Reconnaissance
**ToE –** table of organization and equipment
**TRADOC –** (U.S. Army) Training and Doctrine Command
**TTP –** tactics, techniques and procedures
**WAS –** wide-area security

# How Garryowen and the Standard Scout Platoon Equal Effective Recon

**by LTC Jason A. Miseli,
MAJ Gregory W. McLean
and CPT Dirk K. Van Ingen**

*Comanche Troop, 1-7 Cavalry, screening in the Debnam Pass complex, had been in and out of direct-fire contact since sunrise while providing early and accurate warning for the brigade. In the early afternoon, they were yet again under direct-fire contact with a Donovian reconnaissance element when a dismount observation post (OP) from 1st Platoon – forward of the main screen line by 500 meters with the Processing, Exploitation and Dissemination (PED)-5 Target Reconnaissance Infrared Geolocating Rangefinder (TRI-GR) – identified a platoon-sized element consisting of two T-72s and two BMPs moving into and establishing an attack position. The call immediately went to the section leader, who confirmed the grid to the attack position, and then called it to Comanche 14, the troop fire-support officer. Comanche 14 refined the grid, distance and direction, and using a tactical trigger, initiated an indirect-fire mission with 155mm Dual-Purpose Improved Conventional Munitions at his command. The OP observed the effects on target and estimated all four vehicles of the platoon-sized element were mobility kills. Immediately, the 1st Platoon leader, Comanche 6, and Comanche 14 called "Repeat!" A second fire mission resulted in four catastrophic kills, spoiling a Donovian Raid against 1st Armored Brigade Combat Team (ABCT) and eliminating a critical mission-command node in the lead of the raid, the Donovian brigade commander, from the battlefield.*

The 1st Squadron, 7th U.S. Cavalry Regiment's performance at the National Training Center (NTC) was based on a deliberate training and leader-development plan executed over 15 months with a goal of building expertise in reconnaissance and security (R&S) operations. In this article, we will show that the combination of our methods and the capabilities of the 6x36 Bradley standard scout platoon (SSP) enabled effective reconnaissance necessary in decisive-action operations.

Simply stated, Garryowen accomplished this through three steps. First, we defined R&S operations conceptually. Second, we developed a training methodology that enabled the translation of this concept into the training of R&S operations. Third, our experience through our train-up and execution during NTC Rotation 14-04 proved that the SSP, with Bradley Fighting Vehicles (BFVs) and scout squads, provided effective reconnaissance.

In Step 1, we will show how we defined reconnaissance by creating an operational framework replicated in each iteration. In Step 2, we will provide examples of how we trained reconnaissance through vertical and horizontal nesting of echelons during every event; repetition with increasing complexity varying forms of contact; and mission, enemy, terrain and weather, troops and support available, time available and civil considerations (METT-TC) to develop tactical judgment in reconnaissance leaders from the section to squadron. In Step 3, we will use our experiences specifically from NTC Decisive Action (DA) Rotation 14-04 to show how the increased operational reach and tempo of the BFV-SSP improved our squadron's ability to provide the BCT with situational understanding.

The following is how 1-7 Cav defined R&S operations and built the foundation necessary to conduct R&S operations during a DA rotation at NTC (DA Rotation 14-04).

## Step 1: what is reconnaissance? The cognitive framework

The experience of the last 10-plus years in two conflicts has led most in the Army to see reconnaissance as synonymous with surveillance.

Reconnaissance means different things to different people at echelon. At the troop and platoon level, it is a task. At the squadron level, it is an operation. At the brigade-and-above level, it is an effect.

To begin, we asked the question, "What is reconnaissance?" We developed the answer through the simultaneous implementation of a training methodology that taught reconnaissance leaders how to think
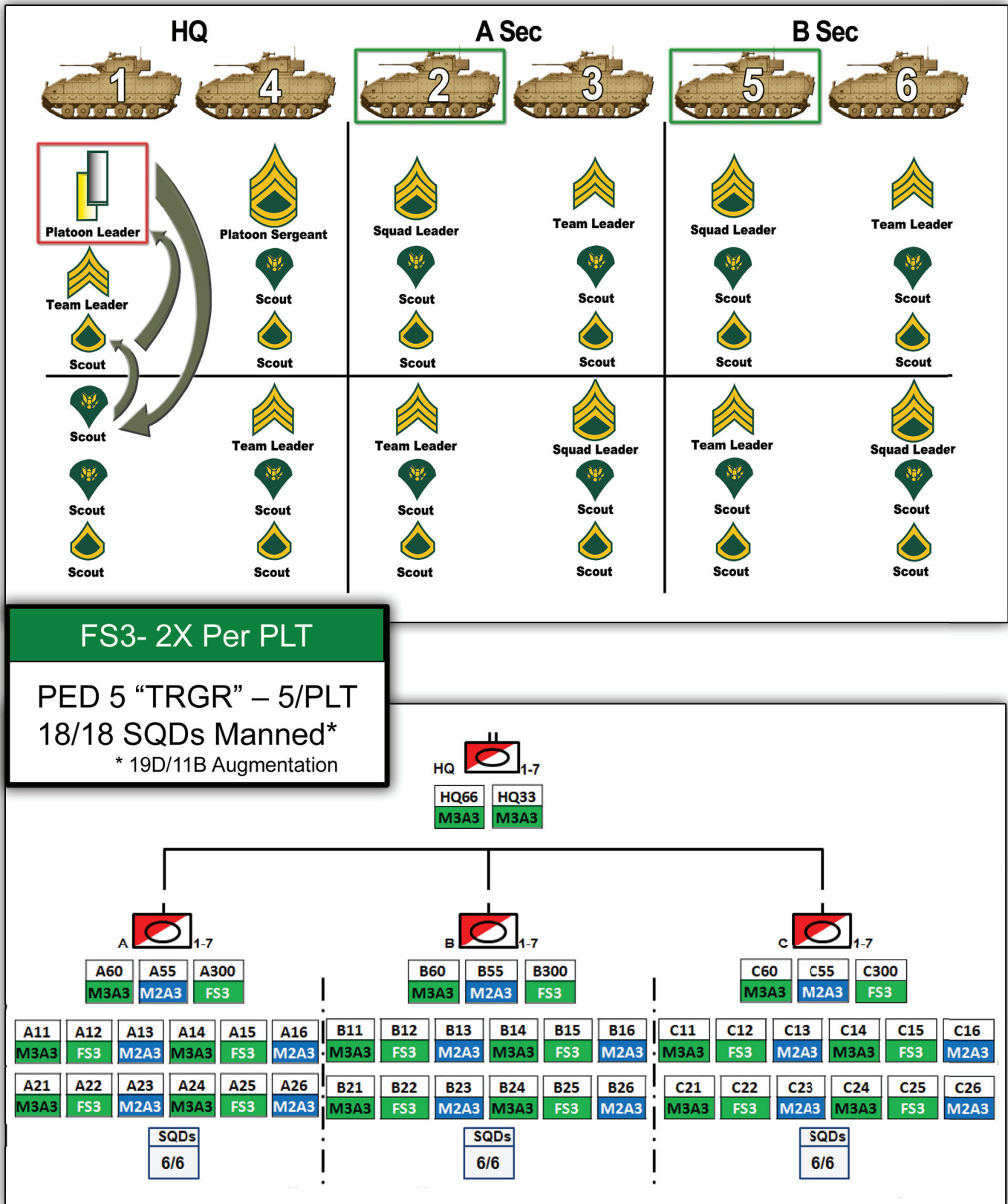


Figure 1. 1-7 Cav's SSP task organization for Rotation 14-04 at NTC.

about R&S operations, trained them to conduct these operations by manipulating METT-TC variables to focus training outcomes and provided repetition through increasing complexity to grow expertise. The answer we validated at NTC was that reconnaissance is a collection of tactical tasks, movement techniques and formations for a platoon. For a troop, it is a mission, and for the squadron, it is the effect of generating understanding from uncertainty and ambiguity to enable BCT decisions and actions ahead of the enemy at echelon.

As a squadron, we wanted to enable reconnaissance pull ahead, in time, of the threat's reconnaissance pull. Although the BCT never pushed us to confirm or deny a specific enemy course of action (CoA) or template, we used initiative to generate options for the BCT commander from initial guidance and limited threat understanding. Our operational framework was that, at the tactical level, troops and platoons must gain visual contact first to allow themselves and friendly units at echelon to gain and maintain threat contact while maintaining freedom of maneuver, and providing the knowledge and understanding for the BCT commander to make decisions ahead of the threat.

This enables the squadron to rapidly transition from event to event. This framework established the basis of a time-in-space-based decision-making cycle instead of the more typical space-in-time one used by the contemporary-operating-environment force (COEFOR) at NTC. The difference being, the COEFOR uses the latter method using terrain-based decision points to retain and generate options, thus dictating the tempo of their choosing to the blue force. For us, the former method relied on using time to set the tempo of operations, disrupting the COEFOR's use of terrain to generate options, but instead limiting options.

These options represent the effect of R&S operations at the squadron/battalion level and above, answering priority information requirements (PIRs)

to allow for commanders' decisions. Reconnaissance requires expertise because it answers who, when, where, how and why we should fight. To arrive at this outcome, 1-7 Cav had to build expertise – the outcome of training, education and experience.

## Step 2: how to train recon: training at the threshold of failure

First, we did a series of leader-development and officer-development programs (LDP/ODP) as cognitive training focused on developing leaders in how to think about R&S. After LTC Jason Miseli presented the above question, leaders at all levels read COL Douglas Crissman's "Improving the Leader Development Experience in Army Units" and LTC Christopher Hickey's "Principles and Priorities in Training for Iraq." These articles presented the outline for the Garryowen training methodology, borrowing the principle of "the rumble strip"[1] and "training at the
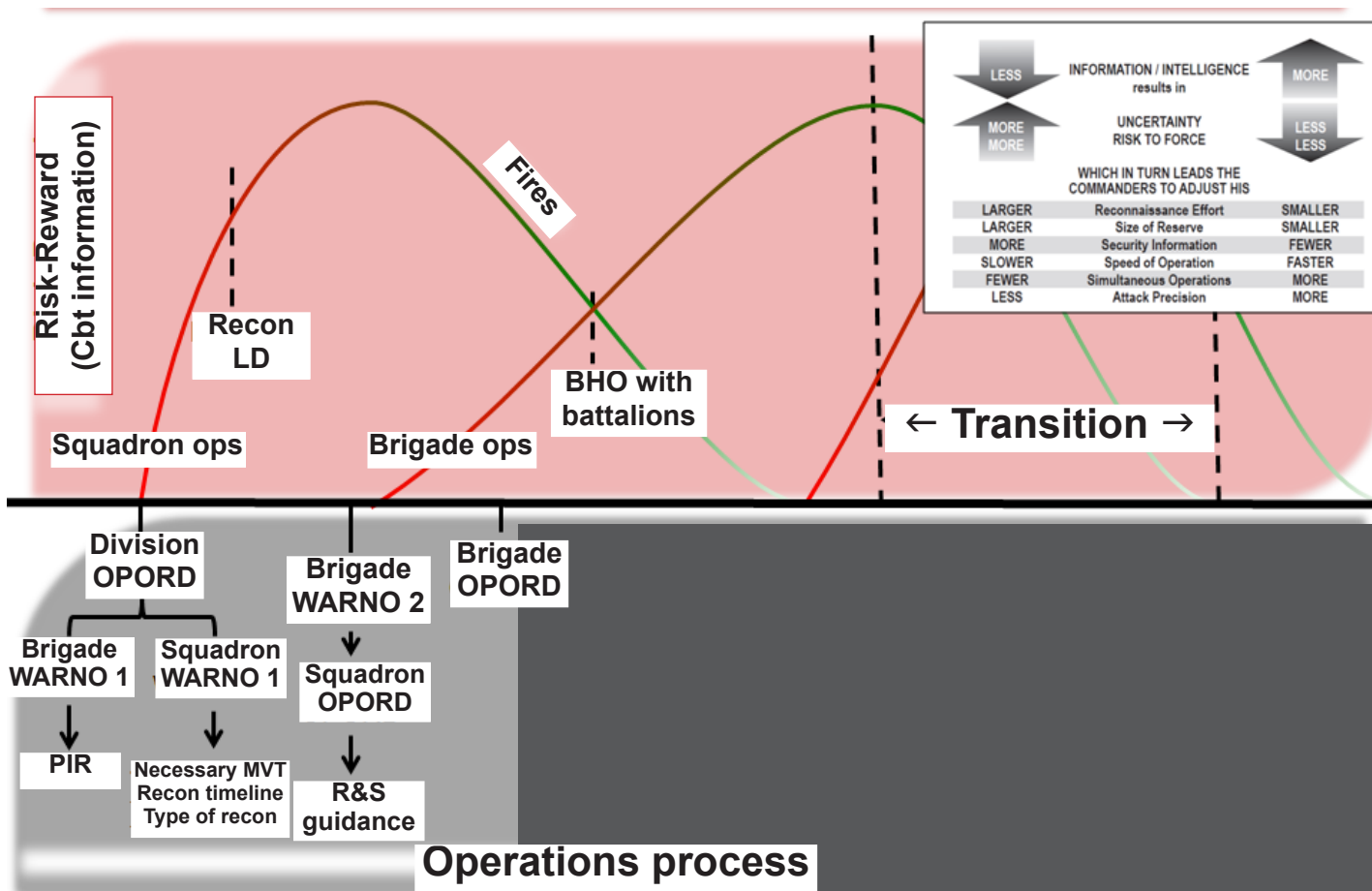


Figure 2. R&S in the DA operational framework.

threshold of failure."[2]

The "rumble strip," as Hickey described the left and right limits of a highway, outlined Garryowen's approach to mission command. Crissman's "training at the threshold of failure" outlined the framework for all training events.

Miseli expected leaders to apply these principles viewed through the lens of METT-TC variables, the applicable form(s) of contact and the four steps of actions on contact (*deploy and report*, *evaluate and develop the situation*, *choose a CoA*, *execute the selected CoA*). We expected leaders to accomplish the mission and associated tasks; however, they could do it with latitude based on their intimate understanding of the METT-TC variables, forms of contact and actions on contact. The purpose was to achieve a conceptual basis for problem-solving within the squadron and the ability to exercise disciplined initiative within the commander's intent.

To round out the cognitive baseline, we required all leaders to read Malcom Gladwell's book ***Blink***. Reading Gladwell's book helped formalize decision-making based on "thin slicing,"[3] or making intuitive decisions, *when appropriate*, based on each leader's expertise – expertise that was the sum of education and experience.

Garryowen now had the educational basis through LPD/OPDs; requiring all platoon-level leadership to complete the Army Reconnaissance Course; and expecting all troop- and squadron-level leadership, to include our S-2 primary and assistant and fire-support element, to combine intelligence and operational understanding by completing the Cavalry Leader's Course (CLC). Next, we had to create the experience needed to cement expertise.

In addition to Crissman's and Hickey's articles – plus individual- through troop-level certification exercises conducted under the methodology discussed previously – leaders received a continuing LPD/OPD program focused on planning, conducting and synching reconnaissance and security operations, identifying that it requires a cognitive leap from maneuver operations to R&S. This included measuring the effectiveness of R&S operations, planning and executing fires, and integrating scout squads, especially with 18 per platoon (see Figure 1).

The cognitive leap required from maneuver to R&S exists because – in addition to synchronizing combined-arms operations – cavalry-squadron operations drive the brigade's intelligence and subsequent operations. This requires the PIR/specific information requirement/indicator linkage and associated intent-based intelligence preparation of the battlefield in the operations process at all levels (brigade down to the individual scout level) to enable reporting that drives commanders' understanding and the decision-making process.[4] This is described by CPT Jeremy Bovan, MAJ Gregory McLean and Miseli in their discussion of intelligence support in a cavalry squadron, Page 39.

To establish this linkage, we taught leaders the importance of visual contact (why and how to win it) above all other forms of contact. We preferred visual contact with the enemy because observing the enemy allows you to



# TRAINING AT THE THRESHOLD OF FAILURE

**WHERE DEVELOPMENT AND GROWTH HAPPENS**

**IDEAL REALM OF TRAINING**

**DESTRUCTIVE IMPACT** Impossible, can't succeed out of control, unrealistic

ORDER ⟷ CHAOS

SIMPLICITY ⟷ COMPLEXITY

**NEGATIVE IMPACT** Boring, don't have time to think, you'll tell me what to do

**THRESHOLD OF FAILURE**
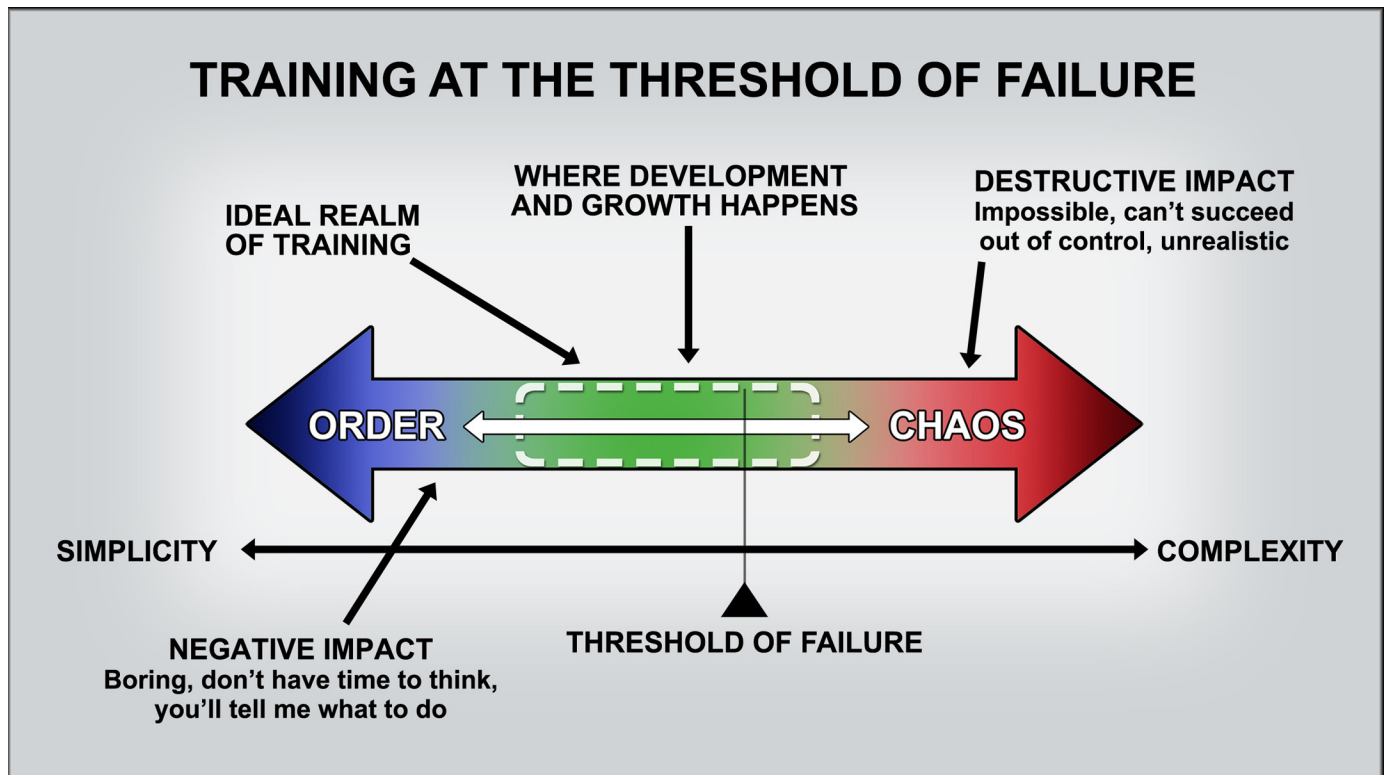
Figure 3. Leader development in training. R&S becomes a 'way of life' – the operational framework continues through each iteration: vertical and horizontal nesting of echelons with every event; repetition with increasing complexity (vary forms of contact, METT-TC); and developing tactical judgment in recon leaders from section to squadron. Improving the judgment of inexperienced leaders is the most important training outcome.

**TRAINING AT THE THRESHOLD OF FAILURE**

IDEAL REALM OF TRAINING

WHERE DEVELOPMENT AND GROWTH HAPPENS

DESTRUCTIVE IMPACT
Impossible, Can't Succeed
Out of control, unrealistic

ORDER — CHAOS

SIMPLICITY — COMPLEXITY

NEGATIVE IMPACT
Boring, don't have time to think
You'll tell me what to do

THRESHOLD OF FAILURE

**"Threshold of failure" varies for every leader and organization**

NTC DATE Rotation 14-04
M - R&S iso CAM and WAS
E - Hybrid threat - near peer
T - Division, brigade & squadron enablers
T - 120 hours + duration

*Complex missions Operational effects*

Troop EXEVAL (November 2013)
M - Zone/area recon, screen, raid
E - All forms of contact, including civil
T - Squadron employs troops w/enablers
T - 72-120 hours duration

Platoon cert (February 2013)
GTXII (October 2013)
M - Zone/area recon, screen
E - CBRN-E, direct, indirect fire
T - Troop employs platoons
T - 48-72 hours duration

Scout section cert (February 2013)
M - Screen
E - Visual only, mounted and guerrilla
T - Platoon employs sections
T - 36-48 hours duration

Increasing Complexity of METT-TC Variables

CHAOS

COMPLEXITY

ORDER

**Measures of effectiveness**

- Develop/share COP
- Fires beyond threat standoff
- OR and LOGSTAT over time

- Timely/accurate reports
- Integrate IDF in collection/ DFP
- Forecasting 35MM
- Maint. as a PoW

- Scout tasks
- Call for fire
- LOGPAC ops
- 5988e

*Tactical tasks Battle-rhythm events*

**Measures of performance**

**Organizational comfort with chaos improved ability to provide SU while increasing complexity for the COEFOR.**

Figure 4. Organizational comfort with chaos improves leaders' ability to provide situational understanding (SU) while increasing complexity for the COEFOR. The 'threshold of failure' varies for every leader and organization.

enter your decision cycle first (actions on contact for troops and platoons), provides more time to adequately evaluate and develop the situation, and then allows you to execute a CoA of your choosing, thus controlling the tempo. Garryowen was able to control the tempo through visual-contact overmatch, which allowed us to gain and maintain threat contact while maintaining freedom of maneuver, and providing the knowledge and understanding for the BCT commander to make decisions ahead of the threat.

Once Garryowen had established the training methodology cognitively, we applied it through all the squadron's training in preparation for NTC. Beginning with "Scout Stakes," our individual- to team-level training certification, we applied the methodology to focus and improve basic scout proficiency. During this exercise, the operation and task was simple: establish an OP as part of a platoon screen line and observe a named area of interest (NAI)

for 24 hours. However, this simplicity allowed the command team and observer-controllers/trainers to control all the METT-TC variables (minus weather!) during training. As a result, they could manipulate variables individually or in concert to achieve "threshold of failure"[5] and drive development. This allowed individuals and their teams up to the entire squadron at echelon to establish a baseline we built on during each subsequent training event, as we increased complexity to maintain contact with that threshold ensuring constant growth (Figure 5).

## Step 3: BFV + scout squads = effect of reconnaissance

Our experiences training at the threshold of failure allowed the increased operational reach and tempo of the BFV-SSP to improve our squadron's ability to provide the BCT with situational

understanding. The SSP, equipped with six Bradley variants and 36 cavalry troopers, greatly increases the combat power of the ABCT cavalry squadron with the additional firepower, mobility and protection afforded by pure BFV platoons.

Also, the integration of a long-range sensor, in this case the Fire-Support Sensor System (FS3),[6] as part of the Bradley A3 fire-support team, and the AN/PED-5 TRIGR for squads, provides long-range detection, acquisition and target designation within the SSP, enabling it to establish visual contact outside the threat's standoff range – a critical capability that allows friendly forces to control the tempo of engagements. The SSP gives the commander, with mounted and dismounted reconnaissance, the operational flexibility to win visual contact by establishing it first, but to retain the relative combat power to fight for information if the situation warrants and survive direct/ indirect contact as required.

During the train-up, and highlighted during NTC Rotation 14-04, the SSP proved its utility in each engagement. Garryowen was able to control the tempo through visual-contact overmatch due to the FS3 and Improved Bradley Acquisition Subsystem (IBAS). Once we gained threat contact beyond their acquisition and engagement ranges, we could control the tempo. During movement-to-contact, the SSP showed the ability to move rapidly and forcefully through the central corridor and Valley of Death more than 17 kilometers, to occupy key terrain and transition to security operations after making threat contact beyond the threat's ability to engage the scout platoons – much less the ABCT's main body – with direct fire. In addition to providing the reconnaissance of maneuver corridors that suited the axis of attack, this gave maneuver time and space the ABCT needed when the enemy situation was vague and time was limited – a textbook reconnaissance-pull opportunity. However, it was during the next two battle phases that the SSP was able to highlight its abilities best.

During the defense, the squadron screened the ABCT from Granite Pass to Bicycle Lake to allow the ABCT to conduct engagement-area development. To accomplish this, the troops conducted area reconnaissance to clear and then occupy key terrain in the Goat Trail, Brown and Debman Pass complexes, and around Brigade Hill. Particularly, Troops B and C fought a series of actions in the Brown and Debman Pass complexes that dislodged the remnants of the previous echelon of COEFOR forces and established OPs with the ability to observe more than 10 kilometers in multiple locations.

One OP was able to achieve observation at ranges of nearly 19 kilometers. All targets beyond the coordinated fire line allowed OPs to engage with fires, disrupting the enemy tempo and formations at each echelon of their attack. Since our OPs had visual contact, we controlled the tempo of the defense, disrupting and neutralizing the COEFOR brigade tactical group's reconnaissance and disruption forces with fires. This visual overmatch allowed us the freedom of maneuver to disengage

and displace once our disengagement criteria were met, establishing flank screens in the north and south, while our center troop conducted a rearward passage of lines out of contact.

In the north, Troop B's screen along Granite Pass displayed the SSP's organic firepower and survivability by achieving enfilading fires, achieving what was essentially an L-shaped ambush on the COEFOR as they attempted to flank the ABCT's right flank. Instead, Troop B met them with enfilading fire from their 15-BFV-strong cavalry troop, massing 25mm, TOW, Javelin and mortar fires. This crippled the attack and assisted the ABCT in defeating the COEFOR attack. Once the attack was complete, the screening troops were able to rapidly transition back to clear and reoccupy the key terrain without conducting a forward passage of lines, allowing continuous reconnaissance forward.

As the ABCT transitioned from the defensive to counterattack, it was necessary to identify axes of advance for the ABCT, as well as the COEFOR's
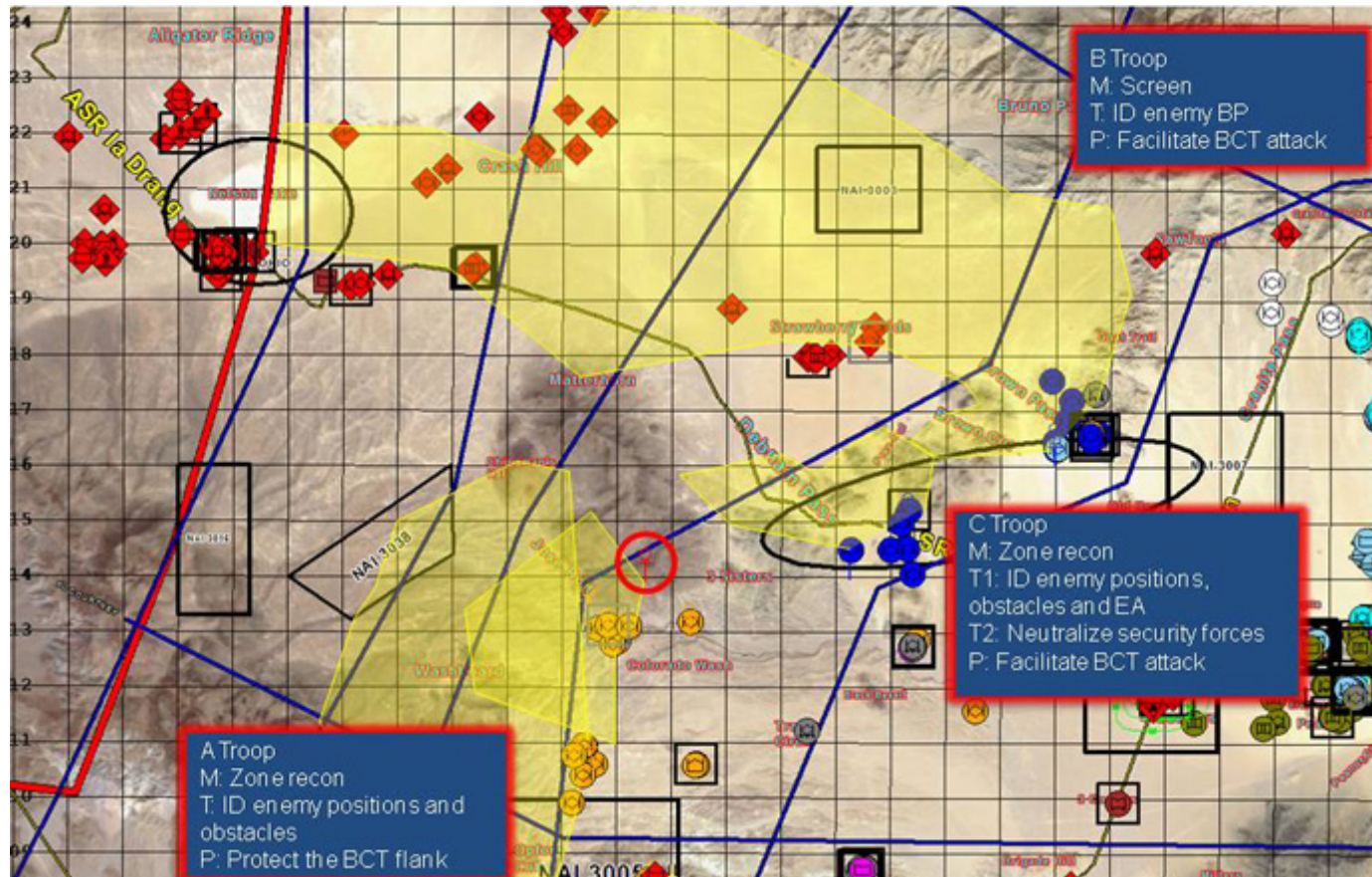


**Figure 5. SU and increased complexity in BCT attack.**
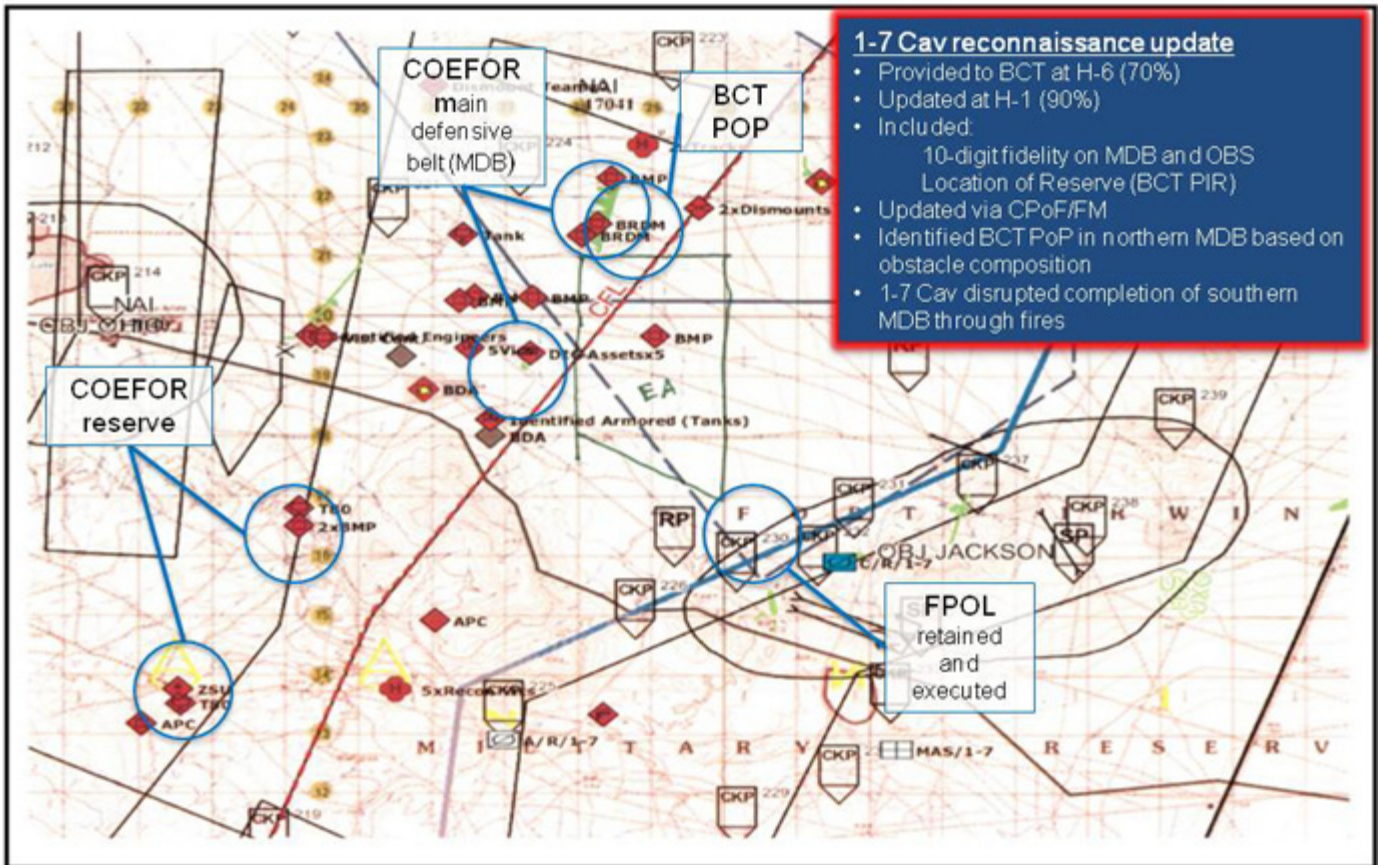
**Figure 6. Results of reconnaissance – BCT attack.**

engagement areas, defensive positions and obstacle belts. Once again, the SSP's survivability and firepower allowed troops to occupy key terrain and establish OPs in depth, looking deep into the enemy engagement area from the beginning of the operation. This allowed us to disrupt much of the COEFOR's preparations and to begin building a comprehensive obstacle overlay, modified combined obstacle overlay and threat template of the enemy's defensive belt and positions.

What we did not know was the location of the COEFOR anti-armor systems along the north wall. We were able to get this information through the added capability by having 18 scouts per platoon, pushing scout squads of BFVs forward up to two kilometers along the north wall to achieve redundancy of collection on NAIs and destroy anti-armor systems.

With this redundancy and mixing from information-collection assets – all done at visual overmatch to retain freedom of maneuver – the squadron was able to complete an obstacle

overlay, just as a platoon leader would build a platoon sector sketch from section range cards. We transmitted this product to the BCT and our sister combined-arms battalions to provide knowledge and understanding of the COEFOR's defense with enough time to tailor their attack plan. This understanding drove more information requirements from brigade we were able to answer, but also allowed them to enter the operations process with understanding of the METT-TC variables ahead of them.

The achievement of creating a squadron-level obstacle overlay to provide lateral and higher knowledge – plus understanding of the threat and terrain situation in the time and space in front of them – was the SSP's proof. It is the capability of protected firepower, scout squads and the ability to mix and cue visual observation with visual overmatch that allows the SSP to set the tempo of contact, gain and maintain threat contact and freedom of maneuver. These assets allow development of a level of fidelity of targeted areas of interest and establishment of

technical and tactical triggers at the troop, if not the platoon, level – giving commanders the ability to gain and maintain threat contact beyond the threat's visual range. Most importantly, these assets allow commanders to retain freedom of maneuver for themselves and higher echelons.

## Conclusion

Garryowen was able to facilitate operational understanding based on reconnaissance-and-security expertise that we developed in reconnaissance leaders over a period of two years. Several steps were critical in this process:

- First, our implementation of an LPD/OPD program to create a cognitive understanding of reconnaissance and security operations for all leaders.

- Second, the training methodology that allowed for optimal learning within the time and resources available that resulted in an operational framework to view decision-making.

- Third, the capabilities enabled by
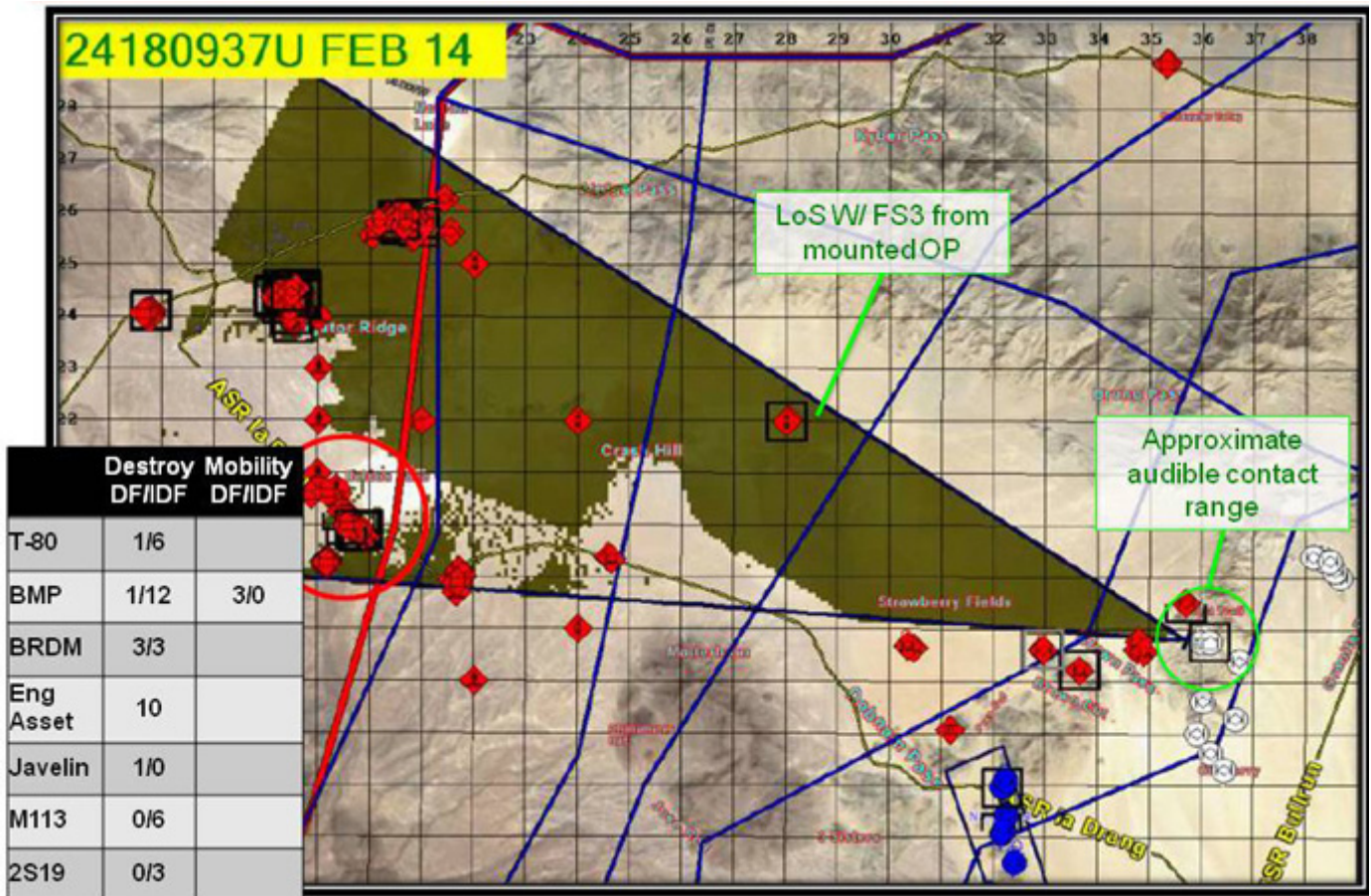
**Figure 7. BFV as an R&S platform.**

the SSP, which allowed Garryowen to maximize the fundamentals of reconnaissance and of security.

As our nation and Army face threats along the spectrum of the hybrid threat used by the COEFOR at NTC, the need for reconnaissance expertise will only grow. The ability to enter the operations process with uncertainty and build understanding from data and information collected during R&S operations is a daunting task; however, we are facing an uncertain future with growing commitments for our regionally aligned Army. It is imperative that, instead of diversifying and diluting our capabilities, we capitalize on the fundamentals that drive decisions and operations in all environments.

The next evolution of training and employing the SSP in 1-7 Cav is developing and following parallel, but nested, training paths for the six Bradleys and scout squads, including live-fire gateways, to fully build each element's capabilities. From an increasing complexity and chaos perspective, we will

focus on employing the SSP in complex urban terrain to maximize the versatility and capability of this formation.

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*science degree in operations research from Georgia Institute of Technology.*

*MAJ Gregory McLean is the brigade executive officer, 1st ABCT, 1st Cavalry Division, Fort Hood. His past duty assignments include squadron operations officer, 1-7 Cavalry BCT, 1st Cavalry Division, Fort Hood; division maneuver planner, 1st Cavalry Division, Fort Hood; commander, Headquarters and Headquarters Troop (HHT), 2-3 Armored Cavalry Regiment, Fort Hood; and commander, F Troop, 2-3 Armored Cavalry Regiment, Fort Hood. His military schooling includes Armor Captain's Career Course, Intermediate-Level Education-Command and General Staff Course, School of Advanced Military Studies and Command and General Staff Course. MAJ McLean holds a bachelor's of science degree in political science from Kansas State University.*

*CPT Dirk Van Ingen serves as squadron planner for HHT, 1-7 Cavalry, Fort Hood. His past duty assignments include squadron S-4, 4-2 Cavalry,*

*Vilseck, Germany; troop executive officer, L Troop, 4-2 Cavalry, Vilseck; scout platoon leader, K Troop, 4-2 Cavalry, Vilseck; and assistant S-3, HHT, 4-2 Cavalry, Vilseck. CPT Van Ingen's military schooling includes CLC, Maneuver Captain's Career Course and Armor Basic Officer Leader's Course. He holds a bachelor's of science degree in history and Russian from the U.S. Military Academy.*

## Notes

[1] Hickey, Christopher LTC, "Principles and Priorities in Training for Iraq," **Military Review**, March-April 2007.

[2] Crissman, Douglas COL, "Improving the Leader Development Experience in Army Units," **Military Review,** May-June 2013.

[3] Gladwell, Malcolm, **Blink,** New York: Back Bay Books, 2005.

[4] See LTC Jason Miseli, MAJ Gregory McLean and CPT Jeremy Bovan, "Intelligence Support to a Cavalry Squadron," this edition of **ARMOR**.

[5] Crissman.

[6] The FS3 is a long-range multi-sensor system that provides the ability to identify and geolocate targets while remaining outside threat acquisition and engagement ranges.

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## Acronym Quick-Scan

**ABCT** – armored brigade combat team
**BCT** – brigade combat team
**BFV** – Bradley Fighting Vehicle
**BMP** – boyevaya mashina pekhoty
**BRDM –** boyevaya razvedyvatelnaya dozornaya mashina (amphibious vehicle)
**BP –** battle position
**CAM –** combined-arms maneuver
**CBRN-E –** chemical, biological, radiological, nuclear and high-yield explosives
**CLC** – Cavalry Leader's Course
**CoA** – course of action
**COEFOR** – contemporary-operating-environment force
**COP –** common operating picture
**CPoF –** Command Post of the Future
**DA** – decisive action
**DAGR –** Defense Advanced G(lobal Positioning System) Receiver
**DFP –** defensive fighting position
**EA –** engagement area
**FA –** field artillery
**FM –** frequency modulation
**FPOL –** forward passage of lines
**FS3** – Fire-Support Sensor System
**HHC –** headquarters and headquarters company
**HETT –** Heavy Equipment Transport Truck
**HHT –** headquarters and headquarters troop

**HMEE –** High-Mobility Engineer Excavator
**IBAS –** Bradley Acquisition Subsystem
**IDF –** Israeli Defense Forces
**ISO –** in support of
**LDP** – leader-development program
**LOGPAC –** logistics package
**LOGSTAT –** logistics statistics
**LoS –** line-of-sight
**MDB –** main defensive belt
**METT-TC** – mission, enemy, terrain and weather, troops and support available, time available and civil considerations
**MTRS –** mortars
**NAI** – named area of interest
**NTC** – National Training Center
**OBS –** obstacles
**ODP** – officer-development program
**OP** – observation post
**OR –** operational readiness
**PED** – processing, exploitation and dissemination
**PIR** – priority intelligence requirement
**PoP –** period of performance; proof of principle
**R&S –** reconnaissance and security
**SSP** – standard scout platoon
**SU –** situational understanding
**TLE –** target-location error
**TOW –** tube-launched, optically tracked, wire-guided
**TRIGR** – Target Reconnaissance Infrared Geolocating Rangefinder
**WAS –** wide-area security
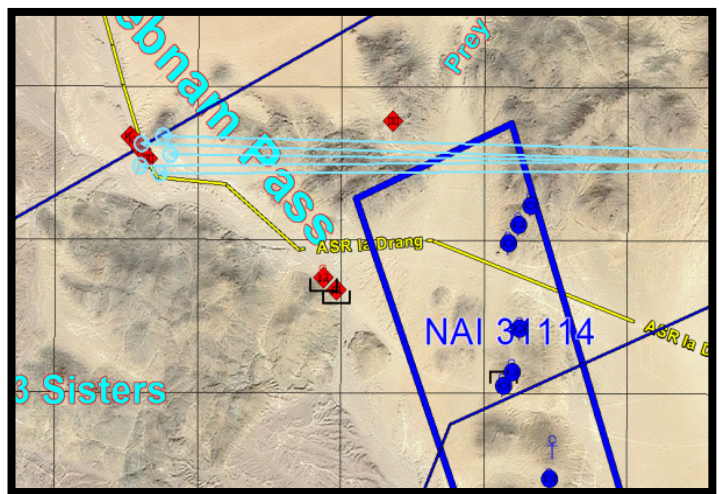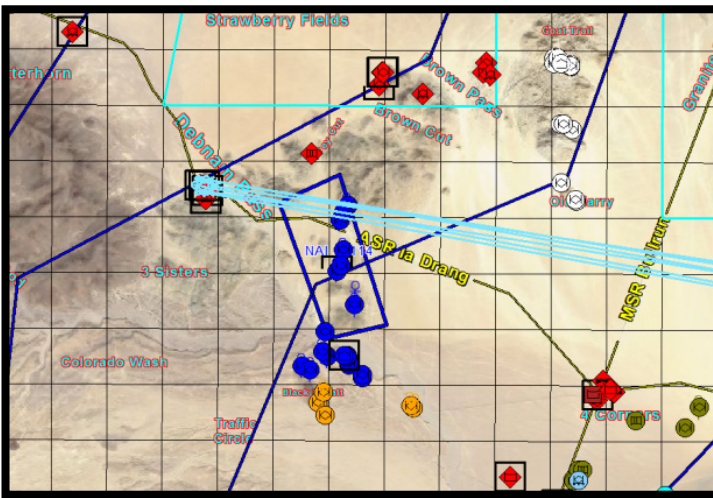
## TLE reduction
• Laze target with FS3
• Laze target with IBAS
• If necessary, confirm laze with second vehicle
• Conduct fire-support DAGR drill with polar data from laze
• Cross-check grid against FS3 and Map Spot
• Send as fire mission

**Figure 8. Operational depth to shape the BCT fight. By using target-location error (TLE) reduction methods, trigger refinement and tactical patience, Troop C succeeded at accurately calling for fire at ranges up to 10 kilometers. Without TLE, reduction TLE was 500 meters on average.**



| FA/MTRS | Destroy | Mobility | Suppress |
|---|---|---|---|
| T-80 | 6 | | |
| BMP | 10 | | |
| 113 | 1 | | 1 |
| Dismount | 8 | | |
| HMEE | 2 | | |
| Light truck | 1 | | |
| HETT | 1 | | |
| Dozer | 1 | | |

**\* As of 272000FEB14**

# The All-Bradley Scout Platoon at National Training Center Rotation 14-04

by CPT Robert Bove, CPT Michael Kaness and CPT Jonathan Page

During National Training Center (NTC) Rotation 14-04, 1st Squadron, 7th Cavalry Regiment validated the utility of a six-Bradley, 36-Soldier scout platoon as a viable formation within the armored brigade combat team (ABCT) cavalry squadron. Through effective use of this formation, the maneuver troops and the squadron as a whole dominated the reconnaissance and counter-reconnaissance fight while providing early and accurate warning to 1st ABCT, 1st Cavalry Division.

While 1-7 Cav was highly successful at conducting reconnaissance and security (R&S) operations in the decisive-action training environment (DATE), the three maneuver troops identified significant planning challenges, mitigated for real-world gaps at NTC and identified future focus areas for study and training. This article is the collaborative notes from the A, B and C troop commanders on what they encountered on the training road to NTC and at NTC itself – and how they believe the future should be shaped for the continued success of the all-Bradley scout platoon.

## Planning

Troop-leading procedures (TLP) serve as the foundation for all planning conducted at troop level. Company-grade leaders generally feel confident in their ability to complete the eight steps and have practiced them countless times during training exercises and at various leadership schools throughout the Army. However, decisive-action operations pose a challenge for cavalry organizations that few leadership schools can replicate.

While at the NTC, Troop A never set in a tactical-assembly area (TAA) during the force-on-force iteration. We began the iteration conducting security operations to protect the brigade TAA and did not consolidate as a troop until we

received a change of mission eight days later. During that time, the troop conducted all TLP while screening and in contact with the enemy. A routine task, conducted to standard several times during training for our rotation, became one of our largest challenges.

TLP in DATE become difficult due to terrain, distance and time. To mitigate these factors, our unit had to have a strong understanding of TLP before we arrived at NTC. Before our deployment, our squadron placed an emphasis on mission command and leader development during all operations. During each training exercise, we focused on developing leaders as they conducted TLP and then evaluated the lower echelons' execution.

For example, during our section situational-training exercise, platoon leaders were given a day to conduct their TLP while commanders mentored and supervised the process. Section sergeants were given a constrained timeline to plan their portion of the operation and then were evaluated by the troop commanders.

This process continued through each subsequent training event until the entire troop executed the process under time-constrained conditions. By applying a progressively more challenging situation each field exercise, leaders at all levels had multiple repetitions of conducting TLP in an unpredictable environment.

While our training provided us a solid foundation, we also developed tactics, techniques and procedures while at NTC to adapt to an unfamiliar environment. We had to relearn how to conduct an operations order over the radio to standard. This included what information was essential to hear over the radio and what could be distributed digitally. We found that the general friendly and enemy situation, mission statement, R&S guidance and commander's intent were best delivered directly by the commander to the troop leadership over the radio. We used digital systems to provide detailed enemy analysis, operational graphics priority-intelligence requirements and sustainment plans. This method provided the necessary information efficiently without disrupting routine radio traffic.

While our proficiency in conducting TLP over the radio improved, we also learned that complex operations still required key leaders to meet in person. Our transition to scout platoons consisting of six Bradley Fighting Vehicles (BFVs) provided the flexibility needed to conduct these link-ups. The increased lethality, survivability and dismounts provided by this configuration allowed us to cover much greater width and depth. When key leaders were needed at the troop command post (CP), we consolidated them at one location and then moved a Bradley section from each platoon to the rear. Our dismounts could successfully cover any gaps created by the section's absence.

The troop successfully overcame most of the challenges posed by distance but struggled to deal with issues that arose from time – either being constrained by it or not using what time we had efficiently. While we were able to meet in person if needed, we generally did not have enough time to do so. Maneuvering off the screen line back to the troop CP usually took several hours. Platoon leaders could have used those hours to conduct more in-depth planning at the platoon level.

Also, time constraints prevented us from conducting detailed rehearsals. We attempted to conduct rehearsals over the radio, but we had limited practice in doing so, and they were not very effective.

We also struggled in determining how to best use our time while conducting security operations. Our typical screen line generally lasted 24 to 48 hours. Once set on the screen, we focused primarily on security. In retrospect, once we had completed our priorities of work and security was established, we could have used the additional time to refine our plan or prepare for follow-on operations.

To successfully conduct TLP during decisive-action operations, units need to be prepared to deal with the challenges posed by distance and time. While preparing to conduct these operations, units should first focus their training on ensuring all leaders have a strong understanding of all the steps and subtasks associated with TLP. Training should then increase in complexity until platoons and troops must plan operations outside a TAA. Based on our experiences at NTC, a unit could achieve this training objective by transitioning from security operations to reconnaissance during the same training scenario. This would require units to conduct TLP on a screen line. The earlier units begin to train in this manner, the more proficient they will be once they must do it on a deployment.

## Reconnaissance and maneuver

The six-Bradley concept allowed subordinate leaders to plan and employ movement and maneuver more effectively than the previous humvee/Bradley mix. Platoons were not constrained by incorporating humvee limitations in maneuver plans.

This was most evident in the opening battle period, where the reconnaissance squadron moved forward of the brigade conducting a zone reconnaissance to pull the brigade forward. First Platoon, B Troop, maneuvered through the central corridor using the north wall's restricted terrain to mask its movement in terrain that would not have supported humvee maneuver at the tempo required to set conditions for the brigade. The platoon maneuvered more than 20 kilometers in less than six hours safely and securely, setting the conditions for the squadron to pull the brigade forward to engage the enemy from positions of advantage.

With the added firepower of the six-Bradley configuration, 1/B Troop gained contact with the enemy brigade reconnaissance team, engaging and destroying three enemy reconnaissance vehicles, two personnel carrier vehicles and 27 dismount personnel. This action set the conditions for 2/B Troop to move rapidly though open terrain and gain a subsequent piece of terrain to maximize observation deep in enemy territory. As the platoons set in a screen in Battle Period 1, they were able to maximize observation and provide the squadron and brigade a very detailed picture of where and how the enemy was deploying into combat formations.

An area of concern during the NTC rotation was the deployment and use of

dismounts in support of reconnaissance operations. With dismounts assigned to troops late in the training cycle prior to NTC, platoons were not afforded time to develop dismount training plans that encompassed when and how to employ dismount. With adequate time to incorporate dismounts into the train-up, this would be easily mitigated.

Regarding reconnaissance, the six-Bradley platoon configuration enabled maximum reconnaissance and observation from positions that were previously unattainable on the humvee platform. Platoons were able to provide different angles of observation onto reconnaissance objectives as the six-Bradley concept enabled screen-line operations in-depth, which provided better situational awareness to the squadron and brigade on enemy locations and capabilities.

The six-Bradley configuration also enabled better information collection to support targeting of enemy capabilities. During Battle Period 2, 2/B Troop was able to gain observation of enemy assembly areas at a distance of 22 kilometers. The platoon was able to gain several key positions of observation, which enabled redundant observation on enemy positions at different angles. This allowed the squadron to cue intelligence-gathering on enemy capabilities, which ultimately led to the destruction of enemy reconnaissance teams as well as destruction of the enemy brigade tactical group that included key enemy staff.

The six-Bradley configuration allowed platoons using direct fire to fight to gain terrain that provided the best observation of the enemy order of battle. As the platoons achieved direct-fire overmatch facing enemy reconnaissance elements and reached terrain that enabled the best observation, it was organic fires and fires provided from brigade assets that allowed the troop to degrade enemy combat power.

For example, during both Battle Period 1 and Battle Period 2, Blackhawk Red and White platoons were able to seize dominant terrain that allowed observation deep into enemy assembly areas. From this terrain, platoons used

Bradley optics at mounted observation posts (OPs) as well as dismounts with Processing, Exploitation and Dissemination (PED) 5 thermal optics to call for fire on enemy formations. This was especially evident as dismounts – in conjunction with an attached Joint Terminal Attack Controller and Joint Fires Observer – were able to destroy most of the enemy's three fixing forces that attacked the platoon's screen line.

During Battle Period 1, dismounts were able to conduct reconnaissance handover to mounted OPs with enemy reconnaissance assets and were subsequently able to destroy a large portion of attacking enemy fixing forces with brigade fires and close-air support. This enabled the brigade to engage the smallest enemy formations and destroy them before commitment of the brigade reserve until a time and place of the brigade's choosing.

The increased lethality and armor provided by the six-Bradley configuration allowed leadership options in applying combat power to different missions. This directly increased the security of our operations and enhanced our protection, as we were able to provide a wider area of coverage and still achieve depth for the troop and squadron.

At platoon level, the six-Bradley configuration enabled a thorough plan of direct-fire control measures, integration of observation and clearance of ground fires in mitigating possible fratricide incidents. This was evident as enemy attempting to infiltrate screen-line operations were engaged and destroyed by multiple Bradley vehicles with no incidents of fratricide.

This was observed during Battle Period 2, when Troop B platoons came in contact with enemy aircraft. The 1/B Troop and 2/B Troop each engaged and destroyed one enemy aircraft as Bradley vehicles provided interlocking direct fire. This was a result of the platoon leadership's detailed planning in assigning interlocking sectors of fire and ensuring variable scanning techniques were used to identify threat from ground to air.

A possible point of future training that needs discussion is providing a Stinger or ground-to-air fire capability to dismount teams. The dismount teams did

not come into contact with an enemy air threat, but if they had, their only ability to defend would have been the M240B crew-served machinegun or the Javelin – neither of which are designed as a primary enemy air-defeat capability.

## Depth

One of the worries at troop and platoon level was that removing the humvee platform from the formation would lead to a gap in the depth of the formation between dismounts forward and Bradleys further behind. We identified three areas in which depth was addressed as a variable in training: in the applied frontage of the formation, in the depth of the formation between dismounts and mounted elements, and in the Bradley's audible signature.

**Frontage**: At NTC, our real-world depth at troop level amounted to an average of five to seven kilometers of frontage in the screen and five to 10 kilometers while conducting a zone reconnaissance (between two platoons) – and around five kilometers of depth on average. Typically, the greatest limiting factor in the formation's frontage was the terrain constraints of the training environment, especially in the Colorado Wash, the Debnam and Brown Pass complexes, and the canalization north and south in the central corridor. Due to these constraints in frontage, no noticeable gap in frontage occurred either dismounted or mounted. In fact, this reduced frontage may have led to our great success on the screen, with more lethal and robust Bradley platforms evenly distributed in the screen.

With a more permissive terrain environment, the frontage of the formation would approach a more doctrinally sound 12-15 kilometers, with the planning factor of the effective direct-fire range of the Bradley's main gun at 1,500 meters.

**Depth:** Our depth is another matter, as on average our dismounted formations operated within 1,000 meters of the forward-mounted OP. The major constraint here was limitation to line-of-sight radio communications with mounted elements, resulting in dismounts having to stay within visual contact of the Bradleys. Each Bradley needs a Multiband Inter/Intra Team

**Figure 1. Typically, the greatest limiting factor in the formation's frontage is the training environment's terrain constraints.**

Radio for its dismount teams (for less than 1,000-meter maneuver) and a dismounted man-portable radio with an high-frequency capability and resourcing (antennae and cabling) for dismounted operations farther forward (greater than 1,000 meters) in a medium- to long-duration OP.

During Battle Period 3, the brigade counterattack, Troop C enjoyed great success in long-range identification with a dismount OP about 400 meters forward of our mounted elements. The dismount OP took less than 90 minutes to move into position and establish. In the future, given a general metric of one kilometer per hour for movement, a robust dismounted element with clear communications for reconnaissance and direct-fire handoff to mounted elements; a clear indirect-fires engagement plan with dismounts involved; a dismounted/mounted integrated training plan with a hunter/killer orientation; and at least Fire-Support Sensor System-level optics in the fire-support team (FIST) Bradley platform would mitigate the void left by removing the humvee platform.

**Audible signature:** As observed by our dismounts, the audible signature of more Bradleys in the formation was negligible. Bradleys have always had a distinct audible signature, but NTC's terrain effects allowed sound to carry over a greater distance than the five kilometers of depth we achieved at troop level. Further refinement in training is needed to determine the maximum range of a Bradley's audible signature and whether this repudiates the argument of a humvee providing stealthy depth to the formation.

Overall, with some changes at the section and platoon training level, as well as in equipping this formation, any loss of capability by removing humvees from the formation will be mitigated.

## Fires integration

Troop C enjoyed great success with its FIST team's integration forward of the headquarters element; robust call-for-fire training; support at the dismount and crew level; and integrated planning of troop and squadron fires. Overall, with very clear engagement criteria embraced and implemented at troop level, Troop C was extraordinarily lethal, destroying (mobility, firepower or catastrophically) at least two mechanized-infantry company formations during force-on-force at NTC.

Troop C achieved this through an aggressive training program, which put its dismounts and gunners/Bradley commanders in the Fort Hood, TX, Call-for-Fire Trainer with its FIST team. This got the team talking with the "customers" and interacting beyond the basics of grid and polar fire missions. Time was spent observing linear targets, confirming or refining grids with other dismounts and communicating with the FIST team for shared understanding and refinement to targets. This

significantly reduced target error at NTC.

A future refinement to this integration moving forward is sustained planning classes at squadron level to refine our airspace management with graphic-control measures and time/space de-confliction. This will help us efficiently manage our fires and the time it takes to clear air.

## Sustainment ops

Leading up to Rotation 14-04, as platoons transitioned to the six-Bradley platoon configuration, troop maintenance teams did not receive more sustainment and maintenance support. A method the troops used to mitigate this risk was incorporating maintenance support forward of the combat trains to within one to two kilometers of the front line of troops. This enabled the troop and platoons to have near-immediate resolution on vehicle-maintenance issues without requiring more levels of support from the combat trains or the field trains. Platoons were able to go 48 hours without resupply of petroleum or oil and still maintain a near-100-percent operational-readiness rate.

For example, the only vehicles for Troop B that regularly were not fully mission capable throughout the operation were a humvee that sustained a cracked oil pan while maneuvering in support of securing the CP and a mortar track that had a malfunction on the mortar fire-control system. This was especially important during Battle Period 3, when Troop B was attached to 2-5 Cavalry.

A significant lesson-learned and employed through this NTC rotation involved casualty-evacuation procedures. Troop standard operating procedures (SOPs) developed before the NTC rotation specified that the first sergeant's and medic vehicles moved forward to the point of injury – well forward of medical care – to retrieve casualties and return to the medical aid station. A method used to decrease time between the point of injury and the next level of medical care incorporated Bradley vehicles from the platoon as non-standard ground casualty evacuation to a prearranged ambulance exchange point. This was

possible because of the six-Bradley configuration; we were able to achieve our reconnaissance objectives in observing named areas of interest, and at no point did we move the first sergeant or medic into a position where the enemy could target them. This procedure changed our casualty-evacuation standards and led to no Soldiers died-of-wounds from injuries sustained.

## Packing lists

As often seems to take place at NTC, a lot of discussion and refinement was spent on load planning. With the increase to the number of dismounts, as well as the recommended platform shift from the M3 Bradley variant to a mixture of the M7 and M2, load planning will be a critical focus for platoon, troop and potentially squadron SOPs.

For our dismounts, the duration of the OPs and the size of the OP element are the critical factors in determining the proper packing list and load plan for the dismount element. Non-negotiable to the packing list in the NTC environment were the Soldier's primary weapon system and ammunition basic load (ABL), personal night-vision device, advanced combat helmet, Joint-Service Lightweight Integrated-Suit Technology, protective mask and improved outer tactical vest. Individual items considered in planning included cold-weather gear and Class I for up to 48 hours.

Crew-serve items considered in planning for a six-Soldier team included communications systems (manpacks), anti-tank (AT) system (Javelin) with up to two more missiles, target-identification optic with lazing capabilities (PED 5), crew-serve weapon system (M240B) with ABL and PAS-13, and batteries to power all this gear for up to 48 hours.

We assessed risk at various points during the rotation to determine what equipment the dismounts would deploy. The way-ahead may be a threat/terrain focus package in dismount deployment. Personal defense, communications and protection will always be part of a core packing list, but we need a tailored package based on either threat (air-defense-artillery package, AT package, local-security package, forward-observer package) or terrain (area-reconnaissance package,

zone-reconnaissance package). Any equipping area where a lighter alternative is available, even at the cost of slightly diminished capability, should be seriously considered in load planning for dismounts.

In addition to all the dismount enablers, a new focus on expeditionary load planning needs to be addressed in troop training geared toward the mindset that "if you don't pack it, you won't have it." Great care will need to be taken to ensure that Bradley crews have the equipment, ammunition and sustainment they need to operate well forward of the brigade for significant periods, as well as the capability to deploy dismounts forward for significant periods in a variety of configurations to maintain agility.

## Summary

Overall, the integration of the six-Bradley, 36-scout reconnaissance platoon was highly successful. The concept proved to be survivable and lethal, and it offered more combat power options to the troop, squadron and brigade.

The six-BFV concept allows commanders ease of mission command to generate and maintain combat power in planning missions. This concept prevents commanders and platoon leadership from duplicate planning in providing maneuver, recovery and ability to provide observation such as was required in the humvee and Bradley mix.

The six-Bradley configuration also simplifies supporting relationships in

attaching platoons or troops to combined-arms battalions, as this configuration is self-supporting longer. The alignment of the scout platoons to a single family of mounted platforms will greatly enhance the utility of the reconnaissance squadron to the ABCT. The squadron will be able to aggressively conduct reconnaissance and security operations with increased survivability and lethality, and with direct fires.

Training with one type of platform will allow more efficiency in training management, and will allow greater flexibility in shifting personnel to like vehicles. The single-platform design will ensure that cavalry organizations in ABCTs will maintain their agility well into the future.

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**Figure 2. Great care will need to be taken to ensure that Bradley crews have the equipment, ammunition and sustainment they need to operate well forward of the brigade for significant periods.**

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## Acronym Quick-Scan

**ABCT –** armored brigade combat team
**ABL –** ammunition basic load
**AT –** anti-tank
**BFV –** Bradley Fighting Vehicle
**CP –** command post
**DATE –** decisive-action training environment
**FIST –** fire-support team
**NTC –** National Training Center
**OP –** observation post
**PED –** processing, exploitation and dissemination
**R&S –** reconnaissance and security
**SOP –** standard operating procedures
**TAA –** tactical-assembly area
**TLP –** troop-leading procedures

# Sustaining the Standard Scout Platoon

## by MAJ Bob Underwood and CPT William Turner

Contrary to conventional wisdom, arguing with success is easy. That is, using 1st Squadron, 7th Cavalry's success at the National Training Center (NTC), we will argue that effective sustainment at the tactical level requires task-organizing and training a wholesale modified table of organization and equipment (MToE) for retail service. In short, effective sustainment depended on our ability to transform the highly centralized garrison sustainment systems built for efficiency into agile, fully resourced sustainment teams that could operate independently in a highly decentralized environment.

During the eight days of force-on-force for Rotation 14-04, Garryowen provided effective sustainment while logging more than 500 miles of logistics patrols and maintaining an operational readiness (OR) of 99 percent for the pacer fleet that, on average, cumulated 600 operational-tempo miles.[1] We did this for a formation that was conducting a reconnaissance or security mission and rarely out of enemy contact for those eight days. Also, the squadron's sustainment team accomplished this while critically short on personnel in our supply and transportation platoon and on our combat-repair teams (CRTs).

We attribute this success to measures we took during our preparation for NTC and an approach to the sustainment warfighting function (WfF) that reflected the squadron's organization culture. Our first task was to define the scope of our problem within the sustainment WfF.

Over the past 12 months, 1-7 Cav conducted a test of the "6x36" standardized scout platoon MToE. This brought the number of Bradley Fighting Vehicles (BFVs) in the squadron up to 47 from its normal MToE of 26, an approximate increase of 80 percent to the normal Bradley fleet. The increase in combat power would provide unique challenges by increasing our requirements to supply and maintain the additional BFVs. Although we received the additional BFVs, we did not receive the additional personnel or equipment required to sustain this force. As we entered our NTC train-up, we planned to sustain the squadron's 47 BFVs with our base sustainment MToE. Generally, our CRTs operated at 75-percent manning and our S&T platoon at 55-percent manning.

## Sustainment assumptions

Knowing we would have to do more with less, and support the squadron against the time and space constraints

of reconnaissance and security (R&S) operations, we made several important assumptions inside the sustainment WfF that we first tested at a brigade exercise and refined during the execution of NTC 14-04. These planning assumptions were:

- Cavalry troops could operate between 36 and 48 hours without requiring a routine resupply of Class I, Class III and Class V.

- We could build and maintain on hand Class IX in the maintenance platoon and CRTs that would ensure repairs at the forward line of own troops (FLOT).

- The squadron would accept risk to efficiency within the sustainment WfF to gain effectiveness in our R&S operations.

## Task organization

Once we had defined the problem within the sustainment WfF, we task-organized to maximize the effects of mission command to meet the requirements. First, we assumed risk to centralized control and built fully resourced line-troop sustainment teams. We then built three sustainment mission-command nodes around our headquarters and headquarters troop (HHT) and forward-support troop (FST): the administrative/logistics operation center (ALOC), the combat trains' command post (CP) and the field trains' CP. We moved our ALOC forward to the tactical-operations center (TOC) based on a gap between the mission-command systems that run the maneuver WfF – which run on Secure Internet Protocol Router through Upper Tactical Internet – and the sustainment WfF, which run on Non-secure Internet Protocol Router through Very Small Aperture Terminal. Having the squadron S-4 forward at the squadron TOC helped synchronize logistics planning with operational planning and to communicate squadron requirements to both the combat and field trains.

The HHT commander served as the mission commander for the combat trains, and we resourced him with our maintenance platoon, the maintenance control section, the troop supply sergeants, the medical platoon (when not operating as separate aid stations), and two sections from the S&T platoon (each section consisting of one M978 fueler and one Load Handling System (LHS) or Palletized Load System (PLS)).

The combat trains also provided the primary mission command for sustainment operations and the tertiary mission-command node (after the squadron TOC and tactical CP for the squadron's operations as a whole. The combat trains operated generally 15 to 20 kilometers behind the squadron FLOT, about twice the normal doctrinal distance, so that they could remain situated behind the FLOT of the brigade's combined-arms battalions and thus avoid situations requiring a rearward passage of lines by the sustainment assets under contact. The combat trains also remained highly mobile. Striking the right balance between retaining stocks on hand, supporting troops forward and being able to move with the squadron at the R&S pace required constant assessment and running estimates between the combat trains and the ALOC.

The FST commander served as mission commander for the field trains, and we resourced him with the cooks and one section of the S&T platoon – along with a small section of S-1 and maintenance personnel – to assist with casualty and Class IX operations. The field trains were co-located inside the brigade support area (BSA). The FST commander served as the primary liaison with the support-operations officer's shop and brigade combat team (BCT) S-4 inside the BSA, representing the squadron's needs at BCT meetings and helping coordinate supply pushes from the base-support battalion to the combat trains.

Arrayed in this way, the sustainment team had great success. Resourcing CRTs properly was critical. Each CRT moved under the troop's control and consisted of one M88A1, a M1175 PLS, a Forward Repair System, a PLS/LHS-compatible 20-foot container for Class IX storage and an M1165 truck with Force XXI Brigade-and-Below. These CRT resources – including the prescribed-load-list clerk with a Standard Army Maintenance System-Enhanced box to remain with the troop

trains – allowed CRTs to provide direct maintenance for all line-troop operations. This prevented us from having to rely on arcane notions of 5988e circulation among echelons and focused CRT efforts on an effective troop-internal 5988 flow. This allowed the CRT chiefs to repair vehicles with their on-hand supply stock listings and minimized the time necessary for the paperwork flow to squadron.

Instead of depending on 5988e circulation among echelons, the CRT chiefs communicated directly with the maintenance technician over the administration and logistics net and via Blue Force Tracker (BFT). This allowed the maintenance-control section's accumulated knowledge to impact where it was needed – pacer troubleshooting – and minimized the number of vehicles requiring recovery back to the combat trains. The attached CRTs facilitated the squadron's ability to repair combat vehicles as far forward as possible and get battle-damaged vehicles back into the fight after engagements.

On average, the BFT backbone allowed battlefield-damage-assessment-and-repair information to reach the BSA within 60 minutes of losing a vehicle to enemy action. The squadron maximized the amount of Class IX stored forward at the combat trains and thus reduced the time to repair damaged vehicles by reducing the distance needed to either push Class IX forward or pull a vehicle back to the combat trains.

Resourcing the combat trains allowed the mission commander to use direct throughput as tactics, techniques and procedures for troop resupply and was critical to the squadron's operation. While the S&T platoon logged significant mileage (516 miles during seven days of force-on-force), we mitigated risk to the crews by giving them dedicated recovery/rest time overnight with no security requirements inside the combat trains and executing the logistics package (LOGPAC) primarily as a daytime operation. Extending the amount of time the sustainment assets were forward allowed line troops to keep combat power on the screen line, enabling effective R&S operations for the brigade.

The trade-off was that sustainment assets operated inside one to three kilometers of the FLOT for up to six hours a day inside the traditional two-hour logistics resupply point time, potentially placing them at greater tactical risks. The critical lesson-learned here is that the sustainment planner needs to synchronize plans with the maneuver planner to identify operational triggers in wargaming for the execution of LOGPAC so that sustainment becomes a true conditions-based operation instead of becoming a time-based event.

## Summary

For the most part, the NTC train-up and the actual rotation validated these assumptions. As part of the BCT exercise in November 2013, 1-7 Cav first practiced extended operations on a 48-hour LOGPAC cycle for the line troops with direct throughput. The squadron confirmed the initial assumption that a line troop could operate for 36 to 48 hours without routine resupply and subsequently used this as a base-planning factor at NTC. This extended operational timeline inside the sustainment WfF allowed the squadron to maximize its limited sustainment assets, conducting LOGPACs daily with one or two of the three available S&T sections while maintaining the third S&T section as an operational reserve – able to provide unforecasted resupply of Classes I, III and V as mission, enemy, terrain and weather, troops and support available, time available and civil considerations variables dictated.

The 6x36 formation proved a unique sustainment challenge for a cavalry squadron inside the sustainment WfF but was ultimately a manageable challenge. Logistics remained effective, with the squadron never being operationally constrained by its

"tail." Transitioning our force from a centralized, efficient, garrison-based sustainment team to a decentralized, effective, field-focused sustainment team created the tools we needed to sustain at the pace of R&S operations. Placing these tools into the hands of company-grade leaders – re-enforced by mission-command systems and the reconnaissance culture – produced the impressive results that mark a success hard to argue with.

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*Scout Leader's Course and Air Assault School. The Bronze Star recipient holds a bachelor's of science degree in agribusiness from Texas Tech University.*

## Notes

[1] These numbers reflect our pacers at the line of departure (LD) (47 BFVs, six 1064s), the average optempo miles generated by our 47-vehicle BFV fleet for the total rotation (live-fire exercise, situational-training exercise and force-on-force). We crossed every LD 100 percent on BFVs, and our OR between LDs was 96 percent.

## Acronym Quick-Scan

**AD –** armored division
**ALOC** – administrative/logistics operations center
**BCT** – brigade combat team
**BFT** – Blue Force Tracker
**BFV** – Bradley Fighting Vehicle
**BSA** – brigade-support area
**CP –** command post
**CRT** – combat-repair team
**FLOT** – forward line of own troops
**FST** – forward-support troop
**HHT** – headquarters and headquarters troop
**IBCT –** infantry brigade combat team
**LD –** line of departure
**LHS** – Load Handling System
**LOGPAC** – logistics package
**MTOE** – modified table of organization and equipment
**NTC** – National Training Center
**OR –** operational readiness
**PLS** – Palletized Load System
**R&S** – reconnaissance and security
**S&T** – supply and transportation
**TOC** – tactical operations center
**WfF** – warfighting function

# Intelligence Support to a Cavalry Squadron

by LTC Jason A. Miseli,
MAJ Gregory W. McLean
and CPT Jeremy Bovan

In this article we will argue that being the intelligence officer (S-2) in a cavalry squadron is the most unique and challenging S-2 position in the Army because the squadron operates without as much knowledge of the enemy situation, without a complete friendly and higher plan and with 200 geographically isolated human sensors (scouts) with individual thought processes.

Operating without known enemy locations is challenging because it does not give us a known quantity to build around and forces us to focus on the enemy's intent and scheme of maneuver, creating unique products.

With a friendly and higher plan that is still being developed and synchronized when we initiate movement, we are forced to develop priority intelligence requirements (PIR) that support specific decision points (DP) but allow continued collection as we wait for conditions to allow or require a passage of lines.

Having 200 scouts attempting to answer the same questions from different vantage points requires an efficient and methodical plan to ensure there was a common understanding of the requirements.

Mitigating these challenges would not have been possible without a solid foundation of maneuver doctrine received through additional training and with experience earned from repetitions during field training.

During the train-up for National Training Center (NTC) Rotation 14-04, the 1-7 Cavalry S-2 shop's production cycle evolved to create a set of useful tailored tools in a time-constrained environment. For each of the NTC battle periods, we continued to refine our process and products based off the mostly positive feedback from our observer-controller team members as well as our troop leadership. While our specific products continue to evolve, our methodology was validated during the decisive-action training rotation while we successfully led 1st Armored Brigade Combat Team (ABCT) of 1st Cavalry Division against the 11th Donovian Armored Division.

## Ambiguity mitigated

The cavalry squadron must conduct parallel planning with the brigade to deploy and report in a timely manner, so when it comes time to develop the enemy courses of action (CoA) during the squadron military decision-making process, we often have limited known data around which to build. The intelligence cavalry scouts collect in the operation's initial phases allows the brigade and our sister units to place known locations of enemy elements and thus have greater context for templating others and refining or even answering decisions.

While tactical users of intelligence products understand that the templated enemy locations are seldom accurate, we felt that due to the added ambiguity that comes with our squadron mission, we would need to focus more on the enemy intent. The S-2 shop still created analog and digital CoAs – and we templated the enemy as specifically as possible – but what proved to be a more useful added product was a simple PowerPoint slide for each CoA that showed enemy intent through task and purpose at the decisive point.

We identified the units we believed the enemy would use as his main effort and his supporting efforts at the operation's decisive point. Each effort (enemy unit) task and purpose, as well as the grouping of efforts for the decisive operation and shaping operations, was shown on this one slide. This allowed troop commanders to understand the enemy's intent, which in a reconnaissance operation allowed them to understand why the indicator might or might not be where we template, and allowed quicker troop-level decision-making to either deliver effects on the identified enemy system or more efficiently orient on secondary locations to identify the enemy system. This additional product also helped realize the differences in enemy priorities between the CoAs that can assist in risk mitigation and targeting planning.

The major differences in the task, purpose, location or task organization helped us develop our PIR.

## Open-ended PIR

We identified very early in the development of our S-2 processes that open-ended PIR were more effective than yes/no PIR for planning reconnaissance operations and supporting brigade decisions. While yes/no PIR are easier to answer and easier to focus collection on, they tend to serve more as triggers instead of supporting DPs that require a balance of friendly and enemy conditions in the context of time and space. The PIR "Will the enemy commit larger than a company-size element to the northern avenue of approach?" is a yes/no question that is easy to collect against and quantify and may allow a combined-arms battalion all the information required to commit its reserve. For a cavalry squadron, this PIR lacks the context required to effectively frame the problem and allow understanding for the broader and more complex brigade decisions.

The environment the cavalry squadron operates in is cloudier from both an enemy and a friendly perspective. Often the scouts deploy without knowing the brigade commander's DPs, a refined enemy situation or more than an outline of the friendly plan. While other S-2s are identifying which dots connect to which dots, the squadron is painting on a blank canvas.

The most common DP the squadron has is when to conduct the passage of lines. Since the squadron mission is to

develop as much understanding as possible for the brigade commander, it is often very difficult to determine exactly what combination of enemy composition/disposition, squadron exposure/risk and follow-on force preparedness will equal the decision to move the brigade from shaping the fight to deciding it.

The squadron S-2 shop very quickly learned that to use yes/no PIR to answer this single DP would either limit our focus or create too many PIR. We learned that we must create a PIR that is never completely answered to facilitate continued collection if the situation permitted. The PIR "How will the enemy attempt to breach the 1st ABCT defensive belt?" was a broader question that gave the squadron a framework to better understand the DP while adding flexibility to continue to refine the brigade's situational awareness. The realization that we required

open-ended PIR forced us to further refine that PIR using a doctrinally modified information-collection matrix.

# Information-collection matrix

While the information-collection matrix in Army Doctrine and Training Publication 2-01 is a doctrinal tool for developing a collection plan, it is often not used below brigade level. This tool is designed to assist in economically using the array of collection platforms and matching them to an observable indicator while also identifying the possible cuing, mixing and redundant opportunities for the targetable or priority indicators. For us, it provided a tool that could be handed directly to any organic scout or shared with any potential *ad hoc* asset to communicate in very simple terms exactly what enemy equipment or activities mattered to our commander and his boss.

This also helped simplify the complexity we created by deciding to use open-ended PIRs by compartmentalizing the broad question into understandable elements for each unit that was responsible for answering. Often, the squadron answered PIRs, the troop answered specific information requirements (SIRs) and the scout and platoon identified and reported on the observable indicators. This product was useful in breaking down our macro-intelligence gaps into refined categories and then specific indicators, while simultaneously tying them into DPs and battlefield time and space. In planning, we would work left to right to provide troops with a simple focused list of tasks, and then – if done correctly – during an operation, troop reports would allow us to work right to left to provide squadron and brigade with understanding to make decisions. Troops could report presence of or lack of an indicator by named area of interest (NAI) in a
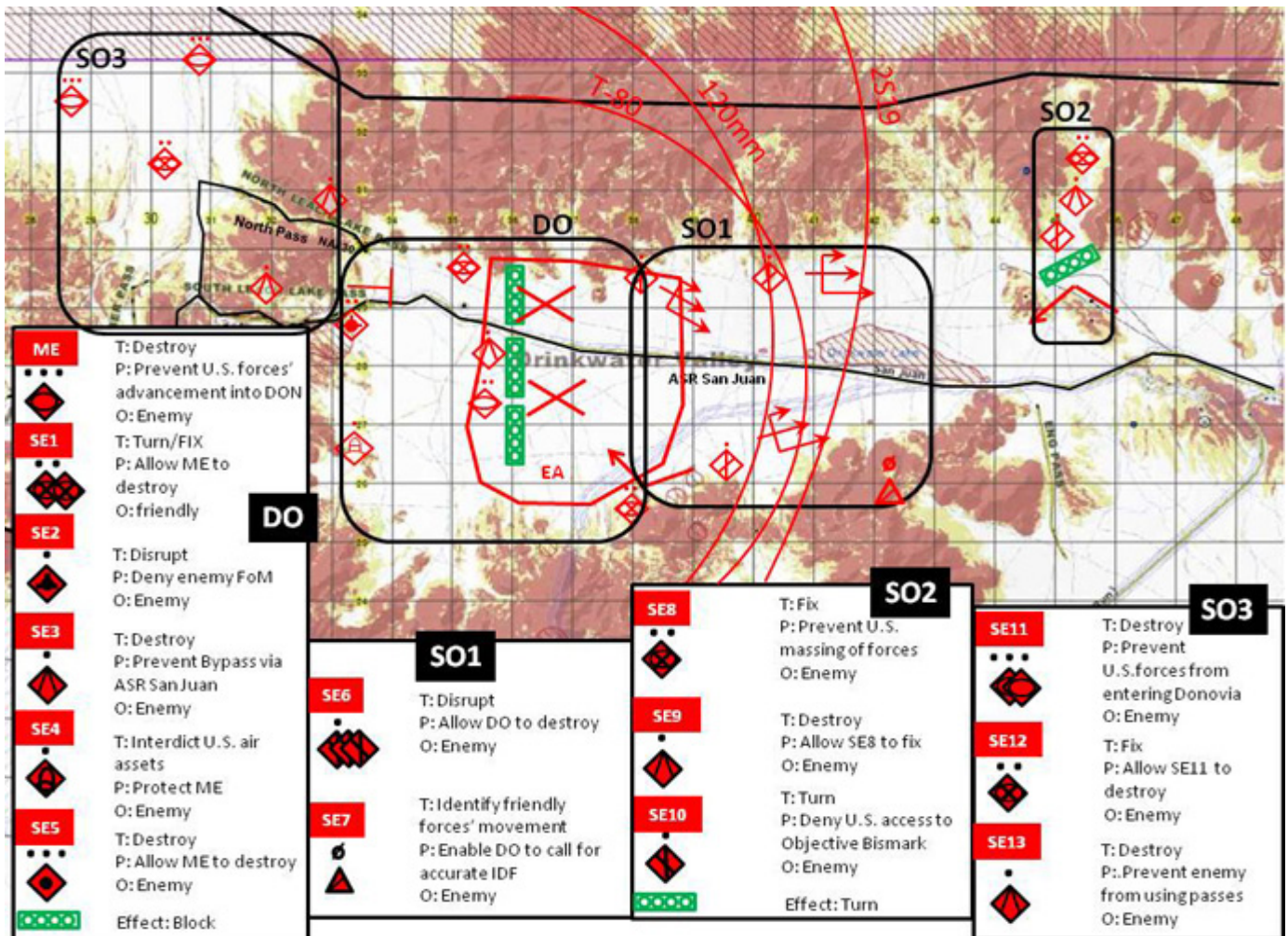


**Figure 1. Enemy CoA slide from movement-to-contact battle period. For a matrix of PIR from the movement-to-contact battle period, please click here.**

systematic and simple process using a product all echelons understood and referenced.

During NTC, the enemy was preparing a defense. Our primary PIR was "How will the 113th Brigade Tactical Group attempt to develop their engagement area?" This PIR was broken down into SIRs, one of which was "Where will the enemy emplace counter-mobility obstacles?" We identified that an indicator was visual presence of engineer equipment, but our scouts did not observe any emplacing mines or digging tank ditches. We identified that visual acquisition of disturbed earth was an indicator of tank ditches, but none were reported. We also identified that Ground Moving-Target Indicator (GMTI) radar returns of slow-moving linear vehicles were an indicator of obstacle emplacement and communicated this to the brigade collection manager.

As daylight broke, we received a report that GMTI had picked up our indicator of slow-moving linear movement inside one of our NAIs overnight. The troops starting reporting indicators of enemy fighting positions in other locations, but the obstacle NAI had no presence of disturbed earth. This negative report, mixed with the GMTI report, helped us assess an exact location of an enemy minefield that proved accurate. While in hindsight it seems a logical conclusion, during the high tempo of reports that morning and without use of the matrix, the minefield would have gone unreported to the follow-on battalion and the result of the attack might not have been so successful.

## Conclusion

Doctrine provides us with guidelines on how to conduct intelligence support to tactical commanders and staff processes, but not every tool is as useful in all echelons and organizations. For an S-2 shop to be incorporated into the organization, it is important to provide simple functional tools that reduce the complexity of the variables and not just add pages of data.

For the cavalry squadron, we identified the key products we were able to create in a time-, information- and resource-constrained environment that

still allowed troop commanders to maintain situational awareness and support the squadron and brigade decisions. We still provided the four steps of intelligence preparation of the battlefield and produced our portions of the operations order, but within the tabs of Annex B were the tools that really provided the benefit. Consistently providing these tools for every new mission reduced friction during both planning and operations at both troop and squadron level.

Due to the unique mission and required tactical knowledge needed to support the planning and operations of a cavalry squadron, MAJ Gregory McLean insisted that CPT Jeremy Bovan and his assistant S-2 attend the Cavalry Leader's Course prior to their field training in preparation for NTC Rotation 14-04. This foundation of maneuver doctrine was essential in the incorporation of the S-2 shop into the cavalry operations process. Without it, we would not have been able to identify and modify the core products required to justify our relevance in the reconnaissance process. With it, we were able to mitigate the complexities of being in the unique and most challenging S-2 position in the Army.

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## Acronym Quick-Scan

**ABCT –** armored brigade combat team
**CoA –** course of action
**DP –** decision point
**GMTI –** Ground Moving-Target Indicator
**HHC –** headquarters and headquarters company
**MI –** military intelligence
**NAI –** named area of interest
**NTC –** National Training Center
**PIR –** priority intelligence requirement
**SIR –** specialty information requirement

# Too Light to Fight:
## the Infantry Brigade Combat Team Cavalry Troop In Combined-Arms Maneuver

**by MAJ Charles G. Bies**

The Army's cavalry units are beginning to rehone their fundamentals and core competencies in the absence of organizational memory. Commanders, staffs and junior leaders in reconnaissance organizations must relearn forgotten skills. Unfortunately, it is not enough to simply relearn the skills and techniques that have faded from organizational memory to ensure future battlefield success; too much has changed in the past decade. During the past 10 years, as the Army has been fighting low-intensity wars, its structure, and therefore its concept of warfare, also changed. Unfortunately, these concepts are rooted in dangerously faulty assumptions that ignore previous decades of combat-proven methods in the name of wishful thinking and doctrinal catchphrases.

The purpose of this article is threefold. The first is to highlight some of the potentially fatal drawbacks of the infantry brigade combat team (IBCT) force structure. It is very easy for leaders who have spent their entire careers in light formations to look at uparmored humvees fitted with Mk-19s, .50-caliber machineguns and tube-launched, optically tracked, wire-guided (TOW) missiles and see a powerful maneuver formation. The reality is that in combined-arms maneuver (CAM), IBCT cavalry troops are glass cannons; for all their firepower, they can be quickly annihilated by a single *boyevaya mashina pekhoty* (BMP), *bronetransportyor* (BTR) or even *boyevaya razvedyvatelnaya dozornaya mashina* (BRDM-2). Failure to recognize this and to task the cavalry troops accordingly is tantamount to condemning the scouts to a death sentence.

The second purpose of this article is to share experiences so that other units can incorporate the tactics, techniques and procedures (TTPs) gleaned in training before they learn them the hard way in the crucible of war.

The fundamentals and TTPs used here apply to the armored and Stryker BCTs (SBCT) counterparts with potentially greater effect.[1]

Third and finally, this article is intended to generate meaningful discussion within our community. Readers may walk away from it and insist that the IBCT cavalry squadron really is just fine the way it is. Or, they will walk away angry and demand some substantive changes to the IBCT cavalry squadrons.

## Problem statement

One of the more challenging maneuvers the pre-war-on-terrorism Army fought hard to maintain proficiency in was the defile drill. Once upon a time, this CAM was conducted by reinforced mechanized brigades, brimming with armor, engineer, howitzer and aviation support. The Army looks different now, and IBCTs and SBCTs may find themselves assuming these missions. The enemy, still lethal, is now expected to prioritize asymmetric warfare, with the enemy heavy artillery replaced by mortars and the armor replaced by armored cars and technical trucks.

Despite these changes, real or perceived, some of the missions will not change. There will still be enemies to fight, and there will still be canalizing terrain they will choose to make their stands. In IBCTs, the likelihood that these canalized "kill zones" will first be encountered by cavalrymen operating deep in sector and alone is high. But cavalry squadrons lack the infantry battalions' ability to sustain combat and absorb casualties. Where breaches are concerned, scouts traditionally shaped the breaching tenet of *intelligence*. The breaching fundamentals (*suppress*, *obscure*, *secure*, *reduce* and *assault*) – the breach's actual execution – were never intended to be executed by scouts, and infantry only did so with the support of enablers and force multipliers. Unfortunately, many uninformed leaders see the cavalry troop as a powerful and survivable maneuver element. These

leaders will mistakenly send the cavalry out to breach defiles without reinforcement.

This is the position in which 5th Squadron, 73rd Cavalry Regiment, from 3rd BCT, 82nd Airborne Division, found itself in October 2010 during the Joint Readiness Training Center's (JRTC) first CAM rotation in nearly 10 years. The previous decade's rotations involved a period of pre-rotational training, followed by platoon-level situational-training exercises (STX) and culminating in a seven-day-long counterinsurgency (COIN) simulation. The October 2010 rotation was more reflective of the Cold War and 1990s, where company STX replaced platoon STX and the COIN simulation became a seven-day-long force-on-force (FoF) battle against a conventional opponent. The FoF exercise consisted of a four-day defensive phase and a three-day offensive phase where the BCT was to retake terrain held by a rogue mechanized infantry battalion. This exercise was discussed in the article "IBCT's Reconnaissance Squadron in Full-Spectrum Operations" (*ARMOR*, March-April 2011 edition), which also addressed strengths and other shortcomings of the IBCT cavalry squadron.

Alpha Troop ("Shadow Troop") of 5-73 Cav was tasked with conducting a route reconnaissance along the southern axis of advance (Six-Mile Creek Road) to identify enemy positions and obstacles prior to movement of the BCT main effort. Though the mission was termed a "route reconnaissance," it was probably envisioned as a movement-to-contact. Six-Mile Creek Road is a hardball more than 12 kilometers long, lined with wooded, canalizing terrain along its entirety. The route is intersected by low-water crossings at four locations; even during the dry conditions of October, these water crossings were impossible to bypass except on foot; abandoning the troop's uparmored humvees after crossing the line of departure was not an option.

These low-water crossings became textbook defiles. The enemy, recognizing this, established strong defensive positions with infantry, Infantry Fighting Vehicles (simulated BMPs) and tanks (simulated T-80s) defending each crossing.

Shadow Troop had serious shortcomings to deal with to accomplish the mission. First, the modified table of organization and equipment (MTOE) in effect predated the "R" series, allocating each scout platoon six trucks with only three-man crews; even with 100 percent manning, extended dismounted operations were impractical. Proposed MTOE changes plan on doubling the platoon's size from 18 scouts to 36 scouts and increasing the number of vehicles to nine. This overdue change allows a full-strength platoon to generate three dismounted teams, but an understrength platoon will still grapple with balancing dismounts against the personnel needed to effectively crew a humvee, particularly in the headquarters section.[2] Progress has been made, but as long as scouts remain shackled to the corpse that is the humvee, generating dismounted patrols will be a problem.[3]

Second, the lack of long-range voice communications meant the troop command post (CP) also hosted a squadron retransmission element.[4] This – combined with the troop mortar section's need to minimize movement to provide continuous rapid indirect-fire coverage and the inability of the troop CP to defend itself (with the exception of the commander's truck as the only gun truck and crew-served weapon in the headquarters, which is yet another MTOE shortcoming) – served to immobilize the troop CP for extended periods of time. Movement of headquarters assets, to include the first sergeant's truck in support of casualty evacuation (casevac), became an operation more akin to jumping a squadron tactical CP than a simple troop CP move.

Finally, no engineer assets were available. An explosive ordinance disposal (EOD) team was attached to the troop, but leaders at all levels must understand that EOD teams are specialized to reduce improvised explosive devices (IEDs) only; EOD teams cannot pull
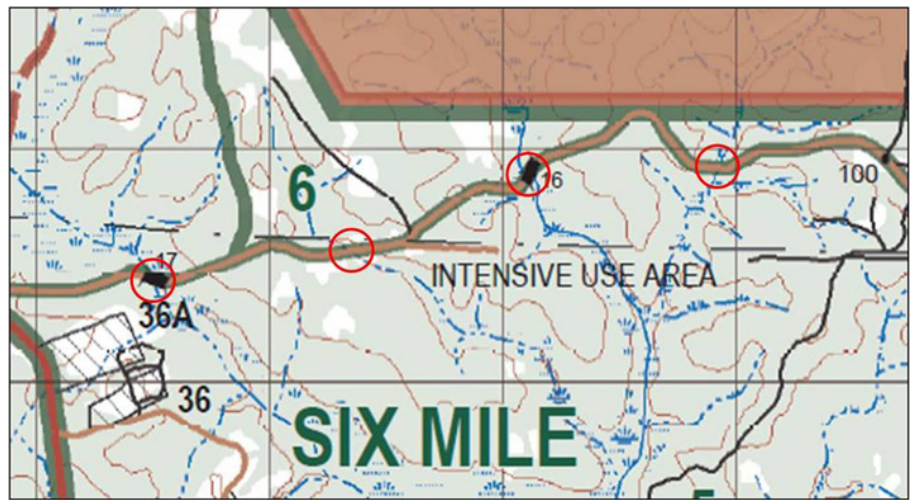


Figure 1. Water crossings are marked as places hampering the ability of vehicles to move off-road.

"double duty" and reduce minefields. This is not only fallacy but also demonstrates an inability to adapt from COIN. The mission's context was high-intensity combat, yet many leaders remained fixed on COIN practices learned during Operation Iraqi Freedom, evident by allocating the EOD team.

What Troop A, 5-73 had was an abundance of fire support. A battery from 1-319 Field Artillery was allocated in direct support to A/5-73; instead of holding this battery at squadron level, the squadron commander wisely pushed this asset directly to the troop fire-support officer (FSO). The BCT had a task force of Army rotary-wing reconnaissance and attack aircraft attached to it; like the artillery support, the squadron commander pushed coordination with the aircraft directly to the troop FSO whenever they were made available to the squadron. After some trial and error, A/5-73 accomplished its route reconnaissance, reached its reconnaissance objective and developed effective TTPs in the process.

Proper conceptualization is necessary to successfully accomplish this mission. Instead of thinking of scouts as "maneuver elements," consider them as mobile observation posts (OPs) that incrementally move forward while smothering the axis of advance with indirect fires. To have any hope of survival, 100 percent of the enemy's armored vehicles **must** be destroyed; a single BMP, BTR or even BRDM left intact behind the forward-line-of-own-troops spells mission failure and

unacceptable casualties. This is not illustrative of "net-centric" warfare or sensor superiority, but it is reality given the limitations of force structure and equipment. It is also a way of balancing mission accomplishment with minimizing casualties.

# Step 1: planning
**Intelligence preparation of the battlefield.** The first step is to identify canalizing terrain that intersects the route of march: waterways or swamps; cuts in mountains or ridgelines; bridges; ravines, cliffs or canyons. Any place where the ability of vehicles to move off-road is hampered should be identified as a defile. This example refers to the water crossings circled in Figure 1.

Enemy assets and the doctrinal template are considered with the location of the defiles. Defensive positions in the enemy's security zone are there to identify, disrupt and "attrit" friendly forces before they reach the main battle area (MBA). If the position is in the MBA, the enemy's objective is to destroy, and the defile serves to contain friendly forces in the kill zone. Depending on the enemy and terrain, there are likely to be similarities in the enemy's deployment not only between the most likely and most dangerous courses of action (MLCoA and MDCoA, respectively), but also between the security zone and MBA positions (Figure 2). These similarities expedite fires planning.

**Fires planning.** An examination of the enemy dispositions in Figure 2 should
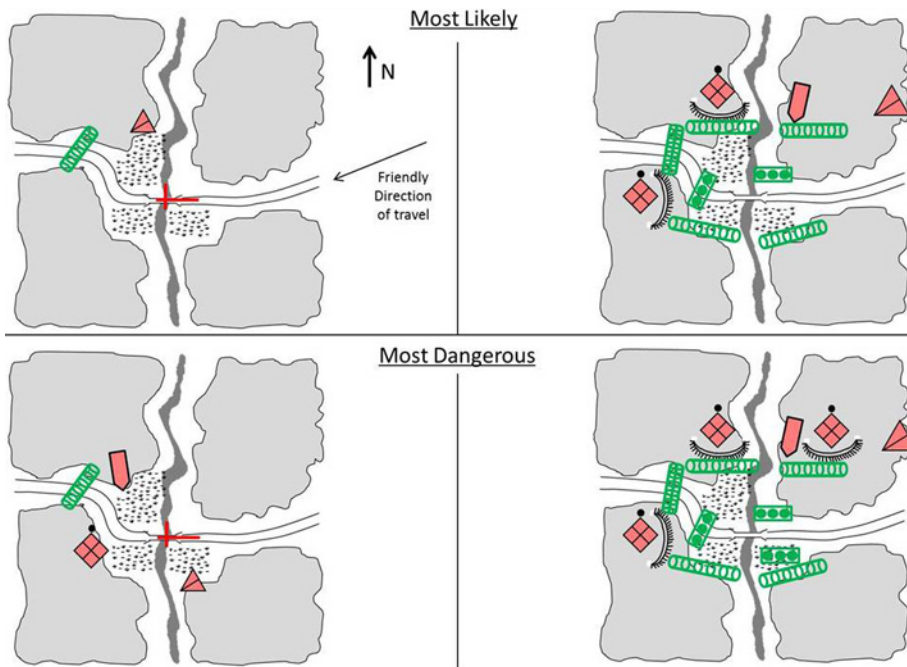
**Figure 2. Comparisons of enemy in the security zone (left side) with enemy in the MBA (right side).**

begin to conjure a specific pattern that would be able to have effects on the enemy regardless of whether or not their defenses are on the north or south side of the route – the pattern is a U shape. By creating a group of linear
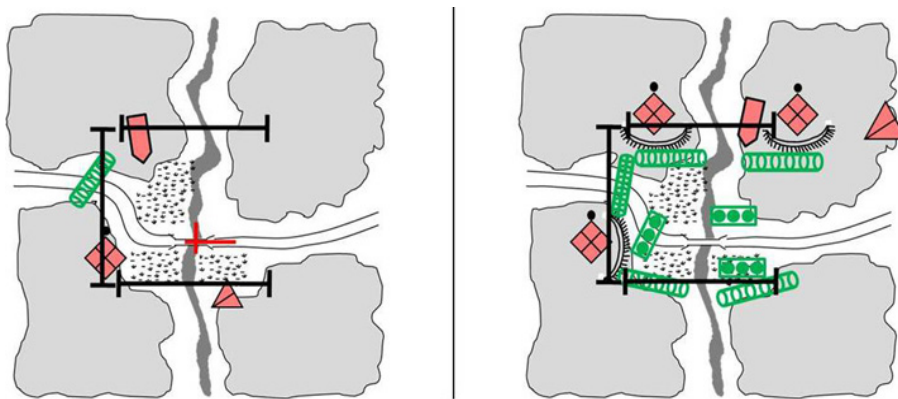


**Figure 3. Comparison of enemy in the security zone (left side) with enemy in the MBA. Note that the same pattern will generally be effective in both situations.**

| Weapon System | MSD (Training) | RED (Combat) | |
|---|---|---|---|
| | | .1% PI | 10 % PI |
| 60mm Mortar | 250m | 175m | 65m |
| 81mm Mortar | 350m | 230m | 80m |
| 120mm Mortar | 600m | 400m | 100m |
| 105mm Artillery | 550m | 275m | 90m |
| 155mm Artillery | 725m | 475m | 125m |

**Figure 4. MSDs and REDs for common fire-support assets. Source: Field Manual (FM) 3-21.8, Chapter 2, Figure 2-3.**

indirect-fire targets arrayed in a U, variations in the enemy deployment can be addressed (Figure 3). When plotting this group, the available fire support and its minimum safe distance (MSD) and risk-estimate distance (RED) for 10 percent and .1 percent of incapacitation (PI) are used.[5] MSDs and REDs for common assets are listed in Figure 4. Since this can vary, a general rule is to plot the group no closer than 125 meters from the chokepoint (Figure 5).

The result of this, when applied to the whole route, will be a large number of fire-support targets. There are two good reasons for the large number of targets. First, targets are resource placeholders, a concept that is not widely understood. These placeholders should help the fires battalion and brigade FSO to allocate resources. Second, time is a luxury scouts rarely have, and artillery is dramatically more responsive when it is fired for effect at a preplanned group – or even shifting from a known point – when compared to adjusting fires against a target of opportunity. An extra five minutes spent planning can literally save tens of minutes during execution.[6]

The trigger lines to initiate fires need to take into account the terrain as well as the time delay between the call-for-fire transmission and the impact of rounds. A planning shortcut is to place triggers outside small-arms range or near a major terrain feature away from the target area (Figure 6). This allows the scout platoon to initiate the fire mission from cover. Proximity to the target group may require the trigger to be outside visual range of the target group, particularly if the nearest terrain feature is within MSD or RED range. Ideally, triggers should be placed so that by the time a dismounted scout reaches the .1 percent PI RED, the rounds should be just starting to splash on target.

**Organization.** Platoons may need to be reorganized for the troop to be effective. Gun trucks may need to be garaged at the squadron maintenance collection point to maximize the amount of scouts available for dismounted operations. Commanders need to carefully consider which trucks are left behind, taking into account

maintenance status and weapon-system composition. At squadron level, any trucks deemed excess to mission requirements must be viewed as an asset that can be diverted to support the dismounted troop or to tactical-operations center (TOC) security.[7]

For a single avenue of approach, several formations are viable. If the terrain and enemy situation is permissible, tasking one platoon per route may be enough combat power to get the job done. In cases where there is a stronger enemy presence, spreading forces so thinly is a recipe for failure; multiple platoons may have to work along the same route, which introduces organizational challenges based on the reconnaissance focus and tempo. If speed is a priority, a V formation is effective.[8] If engineer assets are attached, the platoon in the rear secures attachments, allowing combat multipliers like engineers to be forward and responsive. The rear platoon is in a position to maneuver in support of either forward platoon in the event of contact. If one of the lead platoons encounters a position that allows overwatch of the route, it can establish overwatch while the trail platoon can move forward to assume the reconnaissance mission.

If speed is less important, a modified-column formation is effective.[9] The lead platoon conducts its push-pull reconnaissance along the route such that each section covers one side of the route (dependent on mission, enemy, terrain and weather, troops and support available, time available and civil considerations). The following platoon is postured to assume this lead role in the event the lead platoon takes contact and needs to consolidate and reorganize, its dismounts become exhausted, or it has reached an excellent support-by-fire position. The trail platoon moves up to the follow-and-assume-support role, while the former lead platoon moves to the trail position to quickly rest and reorganize. The cycle continues for the rest of the mission. Fighter management is incorporated into the scheme of maneuver so the lead platoon is not forced to sacrifice its dismounted capability because of exhaustion or dehydration; forward momentum never ceases.

A fundamental of reconnaissance is to not keep reconnaissance assets in reserve.[10] However, this tenet cannot be applied without consideration of the friendly and enemy situation. If only one scout platoon is assigned to a route and the enemy is defending in force with any armor along that route, that platoon will probably fail in its mission and be annihilated in the process. Not leaving assets in reserve really means to not leave any assets unused. Scouts in reserve are not unused; keeping a platoon in reserve provides offensive depth and mass to a formation that is prone to overextension and unable to absorb casualties.

## Step 2: execution

**Dismounts.** Dismounts must always be in advance of the lead vehicles. In a movement-to-contact, contact should be made with the smallest element possible; this can't be achieved if a vehicle takes point. Leading with dismounts also increases the likelihood of detecting IEDs. The humvees, back in a
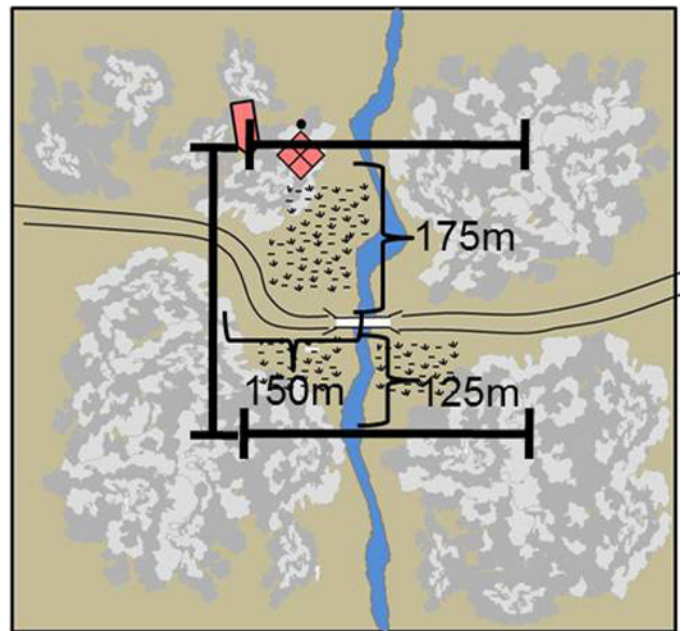


**Figure 5. Since MSD and RED can vary, a general rule is to plot the group no closer than 125 meters from the chokepoint.**

concealed position, provide support by fire and emergency extraction for the dismounts.

The dismounts should move as part of a buddy team with separation between the two dismounts. There's no rule for separation distance, but at any given moment, each scout must be able to see the other. One scout needs to be able to see the route at all times, and at least one humvee (likely the gunner) from the section needs to be able to see at least one of the scouts to enable use of hand signals. Using the standard push-pull method, once the scouts get out of the humvee section's line of
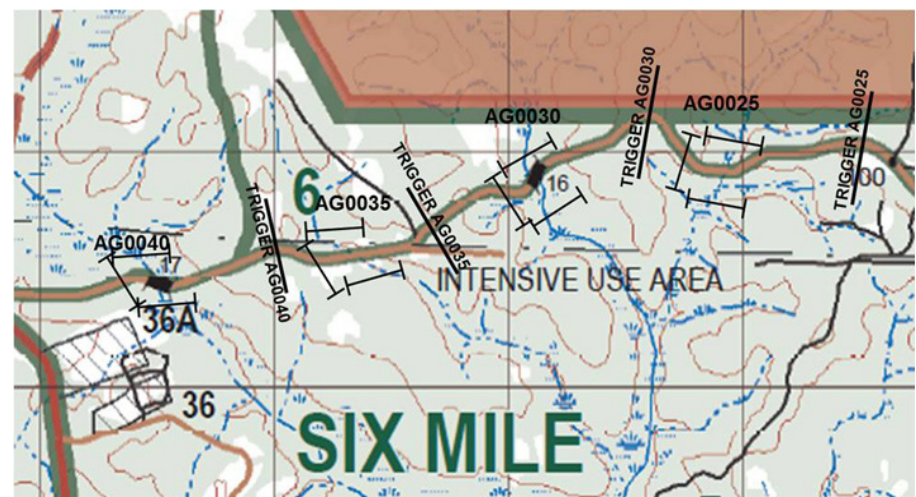


**Figure 6. A planning shortcut is to place triggers outside small-arms range or near a major terrain feature away from the target area.**

sight, the humvee element contacts the dismounts' hold position until the humvee can move forward, after which point the dismounts resume their movement. Likewise, if the dismounted scouts identify a good intervisibility line or other covered position, they will call the humvees forward to establish support by fire.

**Trucks.** The humvees serve as the IBCT cavalry platoon's firepower, resupply points, command-and-control nodes and casevac platforms. Short counts should only be used if the duration between bounds is reasonably long; repeat and unnecessary shutoffs and startups increase the likelihood of drained batteries and a vehicle not starting when it is needed most. Roads should always be avoided because they provide no cover and they harbor mines and IEDs. When road or trail use is unavoidable, speeds should be minimal with the exception of during casevac. If a vehicle is moving fast enough to kick up a dust cloud, it is moving too fast for reconnaissance.

Uparmored humvees do not perform as well off-road. The armor weight, combined with broken terrain, results in more flat tires than units are accustomed to dealing with after a decade of urban COIN operations. Supply requirements for COIN and full-spectrum environments are not the same; as an example, during Shadow Troop's JRTC rotation, the BCT deployed nearly 1,000 pieces of rolling stock to the FoF exercise, yet neglected to bring along spare tires. Though anecdotal, this illustrates a lingering COIN mindset. Squadron S-4s need to ensure a surplus of tires exists, particularly if the mounted troops are using uparmored humvees; tires are cheap, lives are not. Until the humvee is replaced with a better scout vehicle, flat tires will be an inconvenient reality.

**Mortars.** The troop mortar section should be monitoring the fires net for cues throughout the mission. As trigger lines are crossed and fire missions are called up, the mortar tubes should be pre-emptively laid onto the target groups the artillery engages. This expedites any immediate suppression missions that may be required at these likely enemy engagement areas.

The mortar location will necessarily be co-located near the troop headquarters. The mortar section does not have the manpower to secure its firing point while simultaneously laying tubes and hanging round. The mortar section depends on the security provided by the troop headquarters, particularly the commander's gun truck and the FSO's Knight armored vehicle. During any troop CP moves, the mortars must be the first element to be established and the last element to displace.

**Actions at trigger lines.** The dismounted scouts call for a fire mission upon meeting one of the following criteria: reaching the trigger line, or reaching a covered and concealed location that affords observation of the target group. If the target is out of sight, the humvees and dismounts continue to push-pull forward while the dismounts move closer to the target area, taking care to stay outside the MSD/.1 percent PI RED radius. If the trigger lines have been set correctly, the dismounts should arrive at a position at the edge of MSD/.1 percent PI RED just in time to observe rounds on the objective, or – if necessary – with enough time to spare to abort the fire mission before the guns fire. This level of precision can be achieved through training and a working relationship with supporting batteries.

If the target area is clear, or if the enemy has been destroyed, the humvees are called forward, attached engineers breach any obstacles and the troop continues mission. If the dismounts identify a large enemy force, the preferred CoA is to call for fire, break contact and attempt to find a bypass.

If the surviving enemy force is small, it is possible to destroy and break through them thanks to the planning that has already taken place. The dismounts in contact, visual or otherwise, become support-by-fire and immediately adjust indirect fire onto the enemy. If the guns are still laid on the target group, adjustments to the previous fire mission will be fast and artillery will be responsive. If the guns shifted support to another unit, troop mortars (since they are already laid on) are effective. The humvees should move up and use their crew-served weapons as a supplement to the suppression being provided by indirect fires, not as a substitute. The humvees should replace the dismounts as the support force and assume observation of indirect fires where possible, allowing the dismounts to finish clearing the objective.

Once suppression is achieved, the dismounts perform Battle Drill 1.[11] The dismounts become the assault force and the humvees are the support-by-fire. The engineers move with the dismounts to breach as necessary on the objective. Once the dismounts complete their assault through the objective, the humvees assault through and complete clearance of the objective. As the dismounts finalize actions on the objective and move forward to link up with the humvees, a following platoon bounds forward and assumes the lead in reconnaissance, maintaining the troop's operational tempo. A third platoon assists with actions on the objective or casevac as needed. The platoon that cleared the objective consolidates and reorganizes. The entire scenario repeats itself at the next trigger line.

# Results

The challenges faced by the IBCT mounted troops and their platoons can be daunting, but they are not insurmountable. As with all operations, planning is the essential element; the preceding process, though it has many moving pieces, is simple enough that it can be rapidly planned. Successful execution depends on the effective application of fundamental scout skills, some of which may have atrophied since 2003. This is remedied by training the process like a battle drill: through repetition and focusing on simplicity and fundamentals.

The above-mentioned process ended up being successful for Troop A, 5-73 Cav. By the end of FoF, the troop had fought its way through most of a reinforced motorized infantry battalion and reached its reconnaissance objective. Real-world casualties are difficult to estimate based on the nature of the simulation; artillery effects depend on fire markers doing their jobs, vehicles may not have a functional Multiple Integrated Laser Engagement System (if installed at all), and trainer/mentor coverage and control varies radically.

Troop A, 5-73 Cav, accounted for 95 dismounts, seven BMPs, one BRDM, two T-80s and three technical trucks killed or destroyed over the course of a 16-kilometer penetration through enemy territory. The troop's success was pyrrhic; only the troop headquarters and one scout platoon's worth of men and vehicles were intact.[12] A lot was asked of the scouts, and being scouts, they delivered.

## What this says about IBCT cavalry troop and squadron

The need for this conceptualization highlights many problems inherent to the IBCT in general and the mounted troop specifically. The IBCT has limited survivability, so its infantry and cavalry elements are as wedded to their artillery support as our infantry was during World War I. The longest-range direct-fire weapon system in the IBCT, the humvee-mounted TOW, is optimal for defense, yet our doctrine calls for offensive action.[13] The IBCT must have fires superiority before it can begin to accomplish its mission; this is an assumption that is absolutely critical, yet it rarely gets noticed during the military decision-making process if it gets noticed at all.

The batteries did not displace during the entire JRTC rotation; being towed howitzers, they lack the ability to self-displace after firing and to quickly re-establish themselves. This is why self-propelled howitzers were developed in the first place, and the IBCT has none. With our offensive doctrine, how does an IBCT guarantee fires superiority when its batteries can't displace after firing? How will an IBCT fight when maneuver reaches the limits of artillery support, or if batteries are hit with enemy counter-battery fire, or if its radio network is jammed? The preceding example illustrates that such an event would paralyze the cavalry squadron.

The scout defile drill described is predicated on continuous and responsive fire support. A/5-73 required an entire battery in direct support to complete the mission with 30 percent of its manpower left intact. One battery may seem like enough to support a battalion, but considering the IBCT's dependence on fire support, it is not.

Realistically, one battery is needed for every two companies such that one firing platoon can directly support one line company. Before 2014, an IBCT had 11 maneuver companies (including the cavalry troops) supported by only two batteries; only 36 percent of the IBCT could receive an adequate level of fire support. Changes to the IBCT MTOE will soon result in 15 maneuver companies being supported by three batteries.[14] This means 60 percent of the IBCT's companies will receive dedicated fire support, and 40 percent (six companies) will not.

There is not enough artillery in the IBCT. The retort is that any lack in capability can be mitigated through the attachment of aviation and joint air assets, a retort that assumes and depends on unchallenged air supremacy. Since Vietnam, that assumption has usually been valid, but there is no guarantee it always will be. In the 2006 Lebanon War, Israeli ground forces had to use artillery to blast through countless Hezbollah defensive positions missed by air strikes. With the proliferation of man-portable surface-to-air missiles (SAMs), such as the 20,000 that went missing from Libya in 2011, attack aviation cannot sensibly loiter over the battlefield for long periods of time.[15]

Reality also conflicts with the "revolution in military affairs" where speed and mobility is concerned. Future operations are generally envisioned as rapid and fluid; exemplified by the 2003 invasion of Iraq, rapid and dispersed movement will serve to paralyze the enemy. However, cavalry-troop humvees capable of sustaining speeds of 55 miles per hour for 350 miles can only avoid detection by moving as fast as the 19-year-old scout with broken-in boots and an assault pack walking in front of the trucks; usually, this is one kilometer per hour. Due to the humvee's survivability and the cavalry troop's inability to absorb casualties, the IBCT's "mobile" reconnaissance elements can only use 1 percent of their potential mobility.[16] This is acceptable in certain circumstances, but only when this limitation is addressed in mission planning.

The weaknesses of the IBCT cavalry squadron should be apparent. The IBCT element with the most protection is vulnerable to man-portable light anti-tank weapons like the RPG-7. The loss of one dismount deprives a scout section of its dismounted capability; losing two dismounts renders the platoon non-mission-capable. The IBCT element with the most mobility is survivable when moving at the same speed as a dismount; the mounted cavalry troops are not much more mobile than the infantry battalions they are meant to support. The IBCT element with the most firepower can best employ its firepower in a defensive role, but screens do not employ direct fires and none of the cavalry squadrons can conduct guards.

It is futile to fight a mid- to high-intensity conflict with an organization optimized for low-intensity warfare. We expect the Army of the future to use sensors, precision firepower and measured violence against point targets. The JRTC exercise in question suggests that future warfare against a near-peer opponent would likely be a bloody grind and not a stealthy operation devoid of casualties. The IBCT cavalry troop has no "maneuver capability"; a cavalry trooper must act as a moving OP and employ rolling barrages akin to those used during World War I to survive. Quibbling over Ranger-coded billets within the cavalry troops is not going to produce meaningful improvement, nor will simply swapping the humvee out for a different vehicle. These organizations need substantive revisions.

The IBCT cavalry squadron is fundamentally flawed in many ways. The flaws are easy to identify; many revolve around vehicle platforms, some revolve around unrealistic expectations. It is not only in Armor Branch's best interests, but also in the IBCT's and Infantry Branch's, to have a functional, practical and effective IBCT cavalry squadron. For cavalry and armor officers, who are the Army's experts in mounted reconnaissance, the time has come to have an honest discussion of how to comprehensively fix this organization. If we wait until our nation faces a competent opponent that knows the business of war before we make changes, it will be too late. The time to fix the cavalry squadron is now.

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## Notes

[1] As a disclaimer, recognize that this method is merely "a way" for cavalry troops to conduct a defile breach hastily and "on the cheap." Ideally, engineer, infantry and armor would be attached to conduct a more deliberate defile breach. As such, this method assumes a high level of risk.

[2] Some cavalry and Army discussions, such as "One Size Fits All: the Future of the Scout Platoon and Squad" in the January-February 2013 issue of *ARMOR,* propose increasing the vehicle count to 10. However, this repeats the organizational problem the R-series MTOE had; 10 vehicles leave platoons with scout sections that can generate three dismounts each with no dismounts in the headquarters section, hardly ideal when the platoon leader needs to have his boots on the ground.

[3] The Army's lack of a dedicated ground reconnaissance vehicle is discussed in more detail in "Ideas on Cavalry" in the October-December 2013 issue of *ARMOR*.

[4] High-frequency and tactical-satellite communications are not organic to the IBCT cavalry troop. Blue Force Tracker is required for communications beyond frequency-modulation voice range.

[5] One percent PI means one in 1,000 Soldiers could be incapacitated at the specified distance from impact. Ten percent PI means one in 10 could be incapacitated at that distance.

[6] See "So You Say You Want to Kill with Indirect Fires…," *ARMOR*, November-December 2002, and "Mortar Support in the Korean Defile," *ARMOR*, September-October 1997, for a more in-depth analysis and discussion.

[7] An uparmored humvee with crew-served weapons and radios can rapidly be used as strongpoint in the TOC security plan. This also reinforces the need to cross-train the Troop C scouts on humvees.

[8] This formation consists of two platoons forward, each covering a different side of the route, with one platoon in the rear to act as a reserve.

[9] In this case, "modified column" means having one platoon forward, a second platoon immediately behind in a follow-and-assume-support role and a third platoon further in the rear in as a rest or secondary follow-and-support element.

[10] See FM 3-20.98, *Reconnaissance and Scout Platoon* (2009), Paragraph 3-7.

[11] *Platoon attack* battle drill. As of 2007, battle drills have been removed from FM 3-21.8, though they are still referenced. They can still be found in FM 7-8, which is out of circulation but still referenced by 3-21.8 and still available on the Internet.

[12] Most casualties were sustained when the two lead platoons were halted, forced to move several kilometers backward over a previously cleared route and made to wait as a scatterable minefield was emplaced around them, cutting off all forward and rearward movement.

[13] The TOW on the humvee is an unstable platform. No TOW gunner can hope to acquire and hold missile guidance on even a stationary target while that humvee is moving over broken terrain.

[14] The 2x8 platoon and gun battery will become a 3x6 gun platoon and gun battery, resulting in more platoons with fewer guns.

[15] See Matt M. Matthews, "We Were Caught Unprepared: the 2006 Hezbollah-Israeli War," U.S. Army Combat Studies Institute Press, Fort Leavenworth, KS, Occasional Paper 26. Also see http://www.huffingtonpost.com/2011/09/27/nightmare-in-libya_n_983153.html regarding SAM proliferation.

[16] One percent is arrived at by dividing the dismounted rate of march (one kilometer per hour) by the humvee's traveling rate of march of 55 miles per hour, or 88.5 kilometers per hour; 1/88.5 = 0.011, or 1.1 percent.

# What Our Army Needs is a True Aero Scout

**by COL William T. Nuckols Jr. and Peter W. Rose II**

The Army must develop a dedicated, manned aero scout helicopter, designed to support both reconnaissance and security and air-ground combined-arms operations. Also, the aero scout platforms and their pilots must be either organic to or habitually align with the reconnaissance and security (R&S) organizations they support. In spite of the very difficult fiscal constraints our Army is operating under, history and an understanding of potential future conflicts compels us to find a viable solution.

## Howze Board

In 1962, the U.S. Army studied its aviation to determine the extent to which ground systems and organizations might be replaced by aviation. The analysis also proposed new organizations and concepts based on an expanded use of aviation. With respect to reconnaissance, the board highlighted the importance of reconnaissance to all operations. It further noted that

"integrated ground and air reconnaissance is more effective than pure ground or pure air reconnaissance units." It also affirmed its belief that some missions, including reconnaissance, required "the most intimate coordination with ground combat elements – infantry, tanks and armor – and this coordination, and the responsiveness also necessary, can only be achieved if the pilots are part of and under command of the ground elements, live with them, and operate their aircraft from fields close to the headquarters they serve." (U.S. Army Tactical Mobility Requirements Board (Howze Board), final report, Aug. 20, 1962, Fort Bragg, NC.)

Cavalry squadrons conduct combined-arms, air-ground operations employing appropriate combinations of mounted and dismounted tactics in close contact with the enemy and civilian populace. One of the essential elements of this combined-arms air-ground team is the aero scout. However, Army force-structure changes eliminated our premier R&S organizations: division

cavalry squadrons and armored cavalry regiments (ACRs). The elimination of these organizations created separation between our cavalry squadrons and their supporting aviation. Contrary to the Howze Board recommendation, they no longer "are part of and under command of the ground elements, live with them, and operate their aircraft from fields close to the headquarters they serve."

These changes were originally needed by the growing requirements to support two theaters of operation in Iraq and Afghanistan. The unintended consequence was a loss in our ability to effectively conduct air-ground integration at the lowest tactical level, where it is arguably most important. Put simply, this is a lost art. To anyone who has served in either a division cavalry squadron or legacy ACR, this should come as no surprise. Air-ground integration is a complicated and perishable skill that is only mastered through repetition and training.

Technological advances also contributed to this loss of air-ground

proficiency. The relatively rapid growth and assimilation of unmanned aircraft systems (UAS) into our tactical units for operations in Iraq and Afghanistan has given us a false sense of filling the void of air-ground integration. The integration of UAS in lieu of manned aviation platforms originally was a conscious decision based on the flawed premise that technology allowed supremacy in the "quality of firsts" – see first, understand first and act first. UAS systems at all echelons provide outstanding real-time information. Even so, the lack of integration with tactical ground leaders does not support the requirements of these leaders in the fluid and fast-paced execution of their mission.

It appears the OH-58 Kiowa Warrior, the Army's only dedicated rotary-wing reconnaissance platform, will be leaving the Army inventory. In its place, as part of the R&S air-ground team, AH-64 Apache attack helicopters – crewed with former OH-58 Kiowa Warrior pilots at their controls – will serve as our Army's manned aero scouts. In recent deployments to Afghanistan, AH-64s have teamed with a remotely controlled RQ-7 Shadow tactical unmanned aircraft systems (TUAS), potentially the new "scout weapons team" (SWT).

Most Soldiers today recognize the value of the aero scout – both the aircrew and their helicopter. This appreciation for the aero scout and air-ground operations in general is not just a recent trend. Military history describes how the air-ground team has grown in importance and effectiveness over time (see sidebar "Air-ground team development").

AH-64s employed in Iraq and Afghanistan conducted reconnaissance and close-combat-attack missions while flying at altitudes beyond the range of small-arms weapons and at distances that made them difficult to detect. They were able to do this because of their advanced systems, but when the situation dictated, they could still revert to nap-of-the-earth operations. The lack of an enemy integrated air defense permitted these tactics, techniques and procedures (TTPs) in the conduct of counterinsurgency operations. Aerial reconnaissance

## Air-ground team development

The American Civil War marked the first use of aerial reconnaissance by the U.S. Army in the form of balloons. The U.S. Army's balloon corps – created in 1861 – observed the battlefield from tethered balloons and reported via telegraphs. Throughout the war, observers provided a steady stream of reports, enabling unit commanders to obtain an aerial view of their area of operations, track enemy dispositions, map approaches to objectives and direct artillery fire onto hostile troop concentrations. They provided Union commanders with early warning of the Confederate attacks and tracked battle developments. Union balloons forced the Confederates to divert time, energy and personnel in an effort to cloak their activities from aerial observation.[1]

The trench warfare of World War I precluded traditional ground reconnaissance by cavalry, which could not penetrate hostile defenses to locate artillery positions and key defensive concentrations. Consequently, this role fell to aircraft able to fly over the battlefield and observe enemy dispositions in depth. In most major offensives, reconnaissance flights sought to identify enemy positions and artillery batteries, photograph key locations, direct artillery fire and conduct

battle-damage assessments. As one author noted, "The accuracy and timeliness of the intelligence they gathered changed the nature of warfare, and the devastating artillery barrages they orchestrated from high above the battlefield accounted for more casualties than any other weapon system of the Great War. Simply put, the reconnaissance aircrew was the most lethal killing machine of World War I."[2]

World War II witnessed the growing sophistication and integration of aerial reconnaissance and ground operations. Aerial photography provided a sensing of the terrain upon which operations would occur and supplemented ground intelligence of enemy dispositions. In Italy, observation planes organic to most ground formations directed artillery fire, conducted route reconnaissance, tracked enemy movements, identified German demolitions and strong points and provided advance warning of antitank traps. They also helped determine assembly areas and bivouac points, while their simple presence discouraged German artillery and mortars from firing and disclosing their position.[3]

During the Vietnam conflict,

### Continued next page

and surveillance missions were also performed in part by several different models of UASs.

While understanding and applying the lessons-learned from the past 12 years of war, the Army is focusing on our core warfighting abilities. U.S. Army Training and Doctrine Command Pamphlet 525-3-0, *The Army Capstone Concept*, states: "Countering enemy adaptations and retaining the initiative in future armed conflict will require a balance of forces capable of conducting effective reconnaissance operations, overcoming increasingly sophisticated anti-access technologies, integrating the complementary effect of combined-arms and joint capabilities

and performing long-duration area security operations over wide areas." The decisive-action training environment encompasses potential near-peer, hybrid and insurgent adversaries. Given this environment, we can expect Army aviation to face non-permissive environments. This means rotary-wing aircraft will be unable to fly at high altitude and perform reconnaissance and close-combat-attack missions as they were accustomed to doing in Iraq and Afghanistan – and will have to revert to the nap-of-the-earth tactics they flew prior to these conflicts.

Is our Army adequately organized and equipped to perform effective R&S? Employing attack helicopters even

though manned with former aero scouts would suggest otherwise and appears to be a step toward creating *ad hoc* R&S organizations. Our Army's recent organizational trend has been to consolidate manned aircraft in combat aviation brigades while dispersing UASs primarily inside of brigade combat teams (BCTs) and combat aviation brigades. The modular Army split the organic air-ground teams of the division cavalry squadron and ACR. Decreased opportunities to train and operate together requires an aero scout crew and platform that can arrive on-scene with a flexible yet purpose-built set of capabilities readily applied to the situation and easily integrated into the cavalry squadron's scheme of maneuver. This is very difficult to do in practice.

The Army of Excellence division cavalry squadron and its predecessor ensured integrated air-ground R&S operations by virtue of air cavalry and ground cavalry "living together" in the same squadron. Established air-ground teams understood the capabilities and limitations of their counterparts and how they fought together as a team. Aero scout crews had the skills and experience necessary to land next to a ground scout, leader or commander. Brief face-to-face coordination and information exchanges created synergy and ensured synchronization of information collection, tactical movement and employment of fires. The strengths and weaknesses of the air-ground team complemented each other, providing a synergy and resulting level of force protection and capability far greater than the disparate parts.

The aero scouts of the last 50 years brought terrain-independent movement, speed, tactical agility and depth, the means to facilitate higher-tempo operations and of course, elevated observation. Aero scout aircrews possessed a tactical curiosity honed over time by repetitive reconnaissance and security operations. They grew professionally in a culture that stressed the fact they were scouts who executed their mission in an aerial platform specifically adapted for their mission. This mindset and culture truly set them apart from their attack-helicopter brothers. Aero scout aircrews operated

## Air-ground team development
### (continued from previous page)

integrated operations by air and ground cavalry often proved the most effective means of finding and eliminating insurgents. Air-cavalry helicopters formed an aerial screen, spotting hostile forces and directing friendly ground troops into contact. Air cavalry also interdicted enemy troops and fixed them in place until ground forces arrived to eliminate them. The 11th ACR relied on its organic air cavalry to conduct much of its reconnaissance in difficult terrain. The helicopters rapidly covered large areas and inserted air-mobile rifle platoons to conduct dismounted sweeps of select locations or bunker complexes. Air cavalry helped identify enemy infiltration trails and track them to base camps, which became targets for attack by ground forces. Air cavalry bore responsibility for verifying reports of enemy activity. Once confirmed, further reconnaissance occurred and the air cavalry sought to force an enemy reaction, sometimes through the insertion of air-mobile infantry, while ground forces moved to contact.[4]

### Notes

[1] "Balloons in the American Civil War," *Harper's Weekly* on the American Civil War, Internet article accessed May 12, 2014, at http://www.civilwar.com/weapons/observation-balloons.htm; "Civil War Ballooning: Interesting Facts and Frequently Asked Questions," Internet article accessed May 12, 2014, at http://www.civilwar.org/education/history/civil-war-ballooning/civil-war-ballooning.html; James L. Green, "Civil War Ballooning During the Seven Days Campaign," Internet article accessed May 13, 2014, at http://www.civilwar.org/education/history/civil-war-ballooning/ballooning-during-the-seven.html.

[2] Unikoski, Ari, "The War in the Air – Observation and Reconnaissance," FirstWorldWar.com, Internet article accessed May 13, 2014, at http://www.firstworldwar.com/airwar/observation.htm; Kostka, Del, "Air Reconnaissance in World War One," MilitaryHistoryOnline.com, Internet article accessed May 13, 2014, at http://www.militaryhistoryonline.com/wwi/articles/airreconinwwi.aspx.

[3] Cameron, Robert S., *Mobility, Shock and Firepower: the Emergence of the U.S. Army's Armor Branch, 1917-1945*, Washington, DC: Center of Military History, 2008; historical section, Army Ground Forces, Study No. 35, "Army Ground Forces and the Air-Ground Battle Team Including Organic Light Aviation," 1948; US Army Ground Forces Observer Board, "Report of Observers: Mediterranean Theater of Operations," Vol. III, September 1944.

[4] See Neufeld, Jacob, and Watson, George M. Jr., editors, *Coalition Air Warfare in the Korean War 1950-1953*, Washington, DC: U.S. Air Force History and Museums Program, 2005, especially John Patrick Finnegan, "The Intelligence War in Korea: An Army Perspective," retired U.S. Marine Corps MAJ Patrick C. Roe, "The Ghost Armies of Manchuria" and Samuel Dickens, "USAF Reconnaissance During the Korean War"; Schafer, Elizabeth, "Helicopters in the Korean War," included in *The Korean War: An Encyclopedia*; Hiller OH-23 (Model UH-12) Light Utility Helicopter, Internet article accessed May 15, 2014, at http://www.militaryfactory.com/aircraft/detail.asp?aircraft_id=1090.

in a "head out of the hatch" manner with maximum peripheral vision – something UAS operators have not replicated with their "soda-straw" view of the battlefield. Linked to ground-control stations, Shadow, Gray Eagle and other similar UAS operators lack the ability to coordinate on the spot or achieve the feel for the situation as aero scout aircrews could.

Likewise, aero scout aircrews communicated directly to the ground-reconnaissance element they were supporting. This is a function we cannot always duplicate with UAS operators, who may be anywhere from two to five echelons above the supported ground force. Even with the use of communications relay and military Internet relay chat, this separation slows the flow of

**Figure 1. OH-58D Kiowa Warrior team.** *(U.S. Army photo)*

information and coordination, a major detractor to fast-paced reconnaissance and security operations with the purpose to identify opportunities to seize, retain and exploit initiative.

Depending on the enemy situation, the division cavalry squadron's or ACR's air-cavalry troops task-organized aero scout teams or SWTs. When enemy contact was expected, the air-cavalry troop commander normally employed SWTs of OH-58s (hunters) and AH-64s (killers). Naturally, the aero scout(s) in the team conducted area reconnaissance while the "gun" or attack helicopter provided overwatch. The division of labor allowed each to focus on what they did best. Aero scouts agilely flew from point to point across the squadron zone or sector operating where needed forward, on the flanks or over terrain difficult for the ground cavalry to traverse. There was a clear difference in cultures and

training between air-cavalry-troop aero scouts and "gun pilots" from attack-helicopter companies. The transition to an AH-64 aircraft as a scout platform has to be all-encompassing, to include culture and training.

With the potential departure of the Kiowa Warrior, the near-term aerial-reconnaissance solution for our force is to employ AH-64 attack helicopters in that role. In some cases, future SWTs will consist of the RQ-7 Shadow TUAS teamed with an AH-64 Apache. Those units will apply reconnaissance-focused mission-essential tasks to improve the capabilities of aircrews and units. The AH-64 manned-unmanned team appears to be the best solution available if we are limited to making current equipment work. But the current configuration of a AH-64-TUAS team doesn't offer up the organic capabilities we've depended on for more than two generations provided by the OH-58 family of aircraft and their "scout" pilots. ***What our Army needs again is a true aero scout***. We require a simple, rugged, agile helicopter with great "eyes," limited armament for a suppressive self-defense capability and communications-compatible with ground elements. Ideally, its armament

should be enough to destroy or repel enemy reconnaissance elements when necessary to accomplish doctrinal security tasks.

So what's on the horizon? We'll have to wait for the specifics, but the Aviation Center of Excellence lists aerial R&S as a top-tier gap and recognizes a valid requirement for an armed aerial scout. Expect it to also be teamed with UAS.

In all cases, future aero scouts must be interoperable with ground scouts and other ground maneuver elements to accomplish the range of tasks necessary to successful combined-arms air-ground R&S operations. The synergy of air-ground integration will enable mutual support, producing increased effectiveness and improved survivability. Above all, the next generation of aero scouts must also be operated by pilots who retain the soul of a scout.

Similarly, these aero scout formations must enjoy a habitual relationship with the cavalry squadrons they will support. Common understanding of TTPs and standard operating procedures, forged through training exercises at home-station and combat training centers, is critical to achieving this level of understanding and familiarity when employed in combat.

The next aero scout, like the AH-64, must be linked to joint fires to maximize the lethal effectiveness of joint and combined arms at the decisive point. Aero scouts of the future must
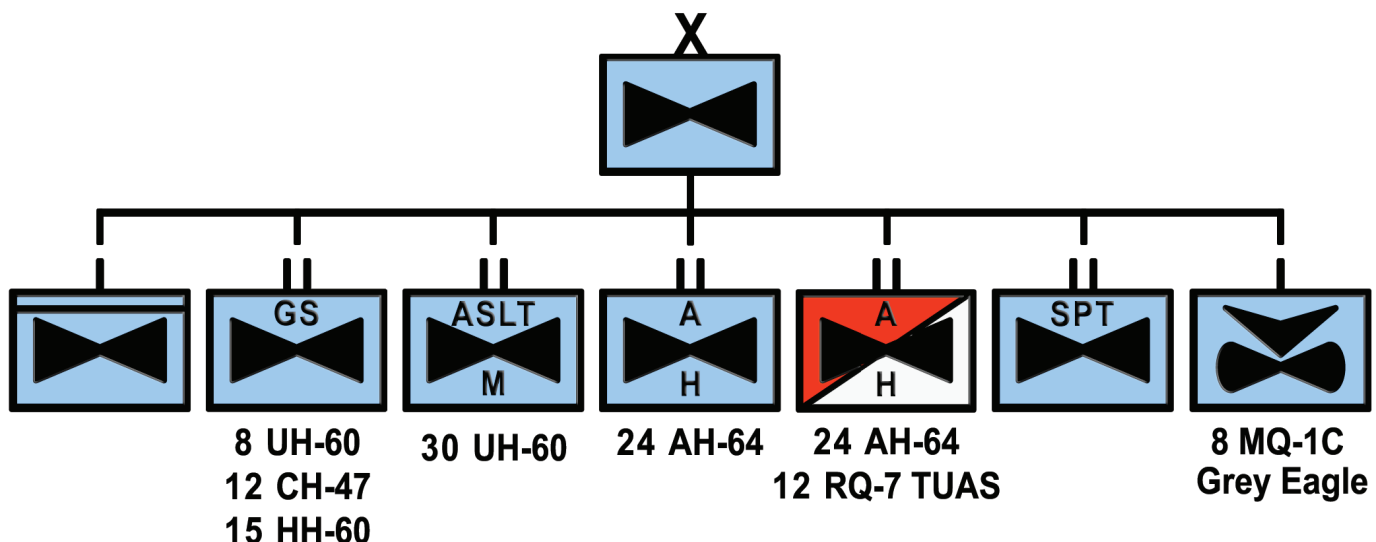


**Figure 2. Potential future combat aviation brigade with attack/reconnaissance squadron, including TUAS.**

include select traits of both a fire-support team and a Joint Terminal Attack Controller. The future aero scout will continue to call for fire, conduct reconnaissance for ground maneuver units and attack helicopters, and direct the action of combat aircraft engaged in close air support.

The aero scout's interoperable communications and mission-command tools will enable the aircrew to talk to ground maneuver, fires, intelligence and sustainment elements, other Army aviation elements and, of course, elements of the combined and joint-force air component. The communications suite will include future versions of beyond-line-of-sight communications, including ultra-high-frequency and satellite communications. The aero scout's situational awareness will have to support the multi-faceted joint-fires role as well as its R&S role. A robust navigation capability, combined with an integrated laser range finder/designator, will provide accurate target location for employment of on-board munitions and joint sensors and fires. Mission-command systems should include the next generation of Blue Force Tracker-Joint Battle Command Platform.

Based on Army aviation's recent review of existing commercial-off-the-shelf products, one capable of meeting all the above-mentioned requirements is not readily available. However, capable, affordable solutions are within our reach and should be available within the acquisition timeline. So what are the capabilities we require in the next aero scout? The next aero scout may be a modernized, survivable mix of those essential characteristics embodied by the OH-58 and the OH-6 "Little Bird." Although these two airframes may be beyond their prime, they illustrate some of the critical capabilities of desired characteristics of the next aero scout (see sidebar "Desired characteristics for next aero scout").

Even during times of such fiscal constraint, our Army cannot afford to operate without the capability of effective air-ground teaming. The OH-58D and the cavalry-scout platoon lost much of this capability with the elimination of the division cavalry squadrons and ACRs. While it may not be financially feasible to bring these

## Desired characteristics for next aero scout

**Crew:** Two military-occupation-specialty trained aero scouts.

**Size:** Lightweight-category aircraft.

**Signature:** Small, quiet, difficult to detect.

**Agility:** Power to be able to operate at most altitudes on "high/hot days" and maneuverability to land in small cleared areas not much larger than a rotor-blade diameter.

**Optics:** Mast-mounted (not chin-mounted) 3D Generation 360° infrared, coupled with a laser designator.

**Lethality:** Versatility to mount an anti-tank missile pod or an anti-aircraft missile pod – primarily to destroy UAS; a traversable chin-mounted machinegun or light cannon.

**Endurance:** Three to four hours between refuelings.

**Mission command and communications:** Interoperable with ground elements, including a common operating picture.

**Sustainability:** Reliable, easily maintained, re-armed and refueled in forward areas.

**Strategic deployability:** Capable of deploying by C-130, operational within minutes (not hours) after arrival.

organizations back, we must find a way to maintain the essential air-ground R&S team capability.

In addition to R&S doctrinal, organizational and materiel solutions, emphasis on training, education and personnel management will help preserve the aero scout. The Aviation Center of Excellence's recognition of aero scout-specific training and leader development are also essential to preserving the desired culture and mindset and will produce critical components of the

"total package." The plan to infuse the AH-64 squadrons with former OH-58D scout pilots is a good start to maintaining the skills and essence of the aero scout.

The application of the air-ground team has produced impressive results since its inception 150 years ago. Generations of scouts have since benefited from teaming with the aero scout, and the importance of combined-arms, air-ground R&S operations continues. Whether you are in an R&S BCT, a BCT cavalry squadron or a battalion scout platoon, your ability to conduct R&S operations will be affected by the capability of the aero scouts with whom you operate. Cavalry troopers of the future require and deserve a similar capability. What the Army will continue to need is a true manned aero scout.

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# REVIEWS

***Tuskers: An Armor Battalion in the Gulf War*** by David S. Pierson, Kindle Edition 2011, 231 pages, $4.99.

Since our nation has been at war in Iraq and Afghanistan, the era in which Operation Desert Shield/Desert Storm occurred rings of a time long past. A time when the United States was able to whip up its military might, garner the support of the Free World and deliver justice. A time when Soldiers made year-long combat deployments, many with multiple tours. In 2001, our military might was at its Cold War heights from the Reagan-era build-up. The Wall had just come down, and the East-West confrontation was ending. The New World Order was taking shape, and the United States was clearly in the lead.

Our police action in Panama in December 1989 had demonstrated the precision with which we could strike without warning. Operation Desert Shield/ Desert Storm then validated the transformation from the Vietnam draft-era Army to the all-volunteer force. It proved the principles of Airland Battle doctrine and the revolutionary concepts underpinning "train as you fight." We witnessed the United Nations-mandated coalition force of 750,000 go toe to toe against the fourth-largest army in the world, meeting them on battlefields in Kuwait and southern Iraq and, in the end, winning a swift and decisive victory. The largest military action since Vietnam lasted just over seven weeks, with 100 hours of ground combat.

From this war have come relatively few historical accounts, and those have been limited to the strategic and operational level, which makes ***Tuskers*** a welcome addition to its annals. Dave Pierson tells his story as a seasoned captain on the battalion staff in 4th Battalion, 64th Armor, a unit that deployed in the first wave and stayed the duration. He does not overanalyze or attempt to correlate it to "grand strategy." Conversely, he calls it like he saw it and, more importantly, he describes the emotion of readying a tank battalion for battle.

Pierson recounts the entire eight months from the "Victory Thunder" alert call in early August … to the seemingly endless preparation, training and rehearsal for combat leading up to the air war in January 1991 … to the lightning-fast ground war … and finally redeployment. The reader gets a sense of the slowness in daily activities during the months leading up to the air war's beginning and then the chaos as the ground war launched. The reader is taken into a tank company – how it dealt with the deployment but, more significantly, how it handled the tough combat missions it was assigned.

The book is further enhanced with photographs chronicling the deployment – many of the author at various times in preparation and in battle. Also, several maps and illustrations add to the narrative of the battalion and company combat actions.

After 13 years of war, with a continuous flow of troops into combat environments, ***Tuskers: An Armor Battalion in the Gulf War*** may first appear as a simple venture, but with Iraq in the rearview mirror and Afghanistan rapidly winding down, this account closely resembles how combat power will be projected and employed in the future from home stations within the United States. Along with its good historical recounting of a significant military operation that helped shaped the post-Cold War, ***Tuskers*** will benefit Soldiers and leaders alike with information on what it is like to prepare and execute a kinetic operation, and it adds a chapter in the evolution of desert combat.

RONALD T. STAVER
LTC, U.S. Army (retired)

# Platform Immaterial: Reconnaissance Challenges in a Decisive-Action Training Environment

## by CPT Jaison D. Desai

As the Army continues the drawdown in Afghanistan, the combat training centers (CTCs) are transitioning brigade combat team (BCT) training exercises to the decisive-action training environment (DATE) to better prepare for global contingencies. Faced with a hybrid threat of both conventional and asymmetric elements, and a recent history focused on urban warfare and stability operations, BCTs are struggling with many facets of the DATE scenarios. Nowhere is this more prevalent than in cavalry organizations, which are now able to refocus on core tactical tasks and competencies but are also challenged by historic issues associated with operating forward of main defensive positions, stretched supply lines and multiple threat scenarios.

Four DATE training rotations analyzed here featured an ideal cross-section of Army capabilities – an armored brigade combat team (ABCT) at the National Training Center (NTC), an airborne infantry regiment at the Joint Readiness Training Center (JRTC), a Stryker brigade combat team (SBCT) at NTC and the proof-of-concept for the proposed 6x36 formation (six Bradleys, 36 Soldiers per platoon). Though each organization had its own unique challenges, trends emerged across all units regardless of platform used. This indicates a need to address these issues across the entirety of the cavalry world to improve capabilities in support of maneuver forces. While certainly not extensive, the following observations highlight some of the more striking challenges within each warfighting function and are generally focused at the troop level to allow junior leaders to improve the organization as a whole.

## Movement and maneuver

The shift to decisive action (DA) means that cavalry forces are once again being relied on to complete their doctrinal tasks in support of the BCT. Even though leaders generally have an understanding of the fundamentals of reconnaissance and the basic requirements for conducting operations such as zone reconnaissance and screen, the details and proficiency of these operations are still a struggle in many cases. This is likely attributable to a simple lack of training time and emphasis for our Army and will undoubtedly improve as increasing numbers of units conduct DATE exercises. Furthermore, the lack of fundamental training and employment of dismounts continues to plague the cavalry. Even with the SBCT's Javelin-heavy formation and the proposed 36-man platoon – which is specifically designed to provide long-duration dismounted observation posts (OP) – units struggle with using their scouts for anything more than local security. As a formation, we must begin training from the OP backward instead of focusing our attention on the vehicular platform.

While terrain and reconnaissance focus clearly play the critical role in determining the width of a zone or screen for a troop, a general reference is between six to 10 kilometers of frontage for a standard ABCT troop and 18-30 kilometers for a squadron. Units still struggle to achieve appropriate frontage and suffer from a lack of depth across that frontage. Commanders need to remember that "the term 'screen line' is descriptive only of the forward trace along which security is provided."[1] Too often, the troop will spread its vehicles and dismounts in essentially a straight line exactly on top of the phase line representing their screen. During one rotation, the troop emplaced along the screen line, then asked to move forward of the ground limit of advance (LoA) to emplace obstacles. Obviously, this request was denied as it was forward of the LoA, yet the troop did not identify it could move backward by 500 meters to a perfect intervisibility line that concealed their positions and allowed emplacement of obstacles forward.

During any type of maneuver, the



**Figure 1. A scout on a dismounted OP attempts to gain observation of enemy reconnaissance.** *(U.S. Army photo by Cobra Team)*

troop must treat its operation as reconnaissance and provide appropriate focus to its elements. The cavalry unit may still move rapidly and reposition in support of various follow-on missions without compromising its own security while providing valuable information to higher echelons. This is especially true in a hybrid-threat environment, where asymmetric forces and foreign sympathizers will blend into the civilian population and report via commercial radios or cellular networks to enemy conventional forces. Deliberate maneuver is key to maintaining operational security and reacting to threats. Doctrine reinforces this concept by discussing in detail the planning requirements and organization of an element during a tactical road march (TRM). Many units equate a TRM with an "administrative move," resulting in a loss of situational awareness and tactical bearing. In reality, a TRM is a deliberate operation involving a reconnaissance party and quartering party moving by infiltration.[2] This ensures security and trafficability of the route, along with suitability of the final tactical assembly area (TAA) position upon arrival.

## Intelligence

The job of a scout is to gather data in support of specified information requirements (SIRs) to allow the brigade to answer priority intelligence requirements (PIRs). To effectively accomplish this task, the unit must complete a PIR crosswalk down to the individual-Soldier level. Formations struggle with taking the highly generalized brigade PIR and refining them to the troop level. The troop commander must go the extra step and further refine these PIRs into indicators a junior scout on an OP can answer. An indicator of "*groups of six or more armored vehicles*" allows the most junior Soldier to easily identify and report observation to higher echelons. The staff can then tie the indicator to the appropriate PIRs, answer these PIRs and report to the brigade.

The scout is only as good as his eyes and comprehension of what he is observing when trying to identify the enemy. While our most sophisticated surveillance platforms allow us to see a great distance, they do not come with the analytical tools to discern the type



**Figure 2. Soldiers use preparatory artillery fire to engage potential enemy OP locations.** *(U.S. Army photo by Cobra Team)*

of vehicle the scout is observing. Combat-vehicle identification was once a commonplace training event throughout the Army, and it enhanced the scout's ability to differentiate platform types at great distances. During the observed rotations, scouts were able to identify groups of vehicles from a distance but were often confused in their reports of the composition of these vehicles. Personnel on OPs must know how to tell a T-80 from a *boyevaya mashina pekhoty*, or BMP, and from a *boyevaya razvedyvatelnaya dozornaya mashina*, or BRDM, through all types of visual aids. This skill is lacking across the force and results in confusion, especially when multiple OPs observe the same enemy force but report vastly different accounts of what they are seeing.

One tool overlooked at the troop level is the company intelligence-support team (CoIST). A highly relevant organization during both Operation Iraqi Freedom and Operation Enduring Freedom, the significance and direction for the team is not clear in a DA fight. While all four brigades discussed here had CoIST at the troop level, it usually consisted of one individual – with two units opting to have 35F intelligence analysts and the other two units using 19D scouts.

An entire article can discuss the usefulness of the position in a DA fight, but if assigned, the CoIST must be given responsibilities. In three of four cases, the CoIST was used as a glorified radio-telephone operator in the troop command post (CP) and rarely received time or space to perform intelligence functions. While each unit must establish its own tactics, techniques and procedures, the commander can certainly benefit from using this individual in a variety of ways: building Paragraph 1 of the operations order; refining enemy most likely and most dangerous courses of action; battle-tracking reporting and battle-damage assessment; and linking to the squadron S-2 during intelligence-synchronization meetings. The connection to the S-2 ensures the troop is able to receive, process and benefit from the latest intelligence reports from across the brigade's operational area.

## Fires

"It is imperative that the troop effectively employ indirect fires. One of the commander's greatest challenges is effectively synchronizing and concentrating all available assets at the critical time and place," according to Field Manual (FM) 3-20.971.[3] Indirect fires are designed to shape the battlefield in support of ground maneuver. The

first step to this process is to ensure the issuance of commander's guidance for fires at all levels, including from the troop commander to the troop fire-support officer (FSO). This guidance allows the commander to direct his FSO in how he wants to use fires (to include joint fires, when available) to shape his maneuver plan. The two must work together to create an integrated plan that is synchronized and takes advantage of all assets, both at troop level and higher echelons. While fires planning varies across missions, creation of both offensive- and defensive-focused fires and massing of indirect and direct fires will create the best effects. Understanding and refining the high-payoff target list and synchronization with the attack-guidance matrix and target-selection standards ensures the proper munition for the proper target and focuses assets on the most critical targets throughout the operation.

Artillery is a critical asset and must not be overlooked in its capabilities. The observed units were challenged by a lack of responsive fires, especially when approval, air and ground clearance must come from brigade. Even when the squadron commander was the ultimate approval authority, rapid artillery fires were nonexistent – the average time from call-for-fire to rounds impacting was well over 20 minutes in all cases. One way to obtain effective clearance of fires is by using fire-support coordination measures, especially the coordinated fire line, which may be tied to phase lines and echelon forward as the unit maneuvers. The most recent observed unit was much better at employing fires precisely because it implemented triggers and maneuvered to positions of advantage to identify enemy formations. It is critical to remember that in a DA environment, the use of shaping fires and preparatory fires is an integral part of maneuver. The unit's rules of engagement will dictate official restrictions, yet in the counter-reconnaissance fight against a conventional force, artillery high-explosive and smoke rounds onto a piece of key terrain will suppress enemy OPs (including templated OPs) and conceal friendly reconnaissance.

While the last 13 years of deployment

have allowed most junior leaders to gain a direct appreciation for the capabilities and effectiveness of both rotary-wing and fixed-wing aircraft, a DA environment is quite different. First, units must remember that a conventional opponent also means the introduction of legitimate anti-aircraft threats such as SA-18 systems throughout the battlefield. Realistically, rotary-wing aircraft will not be able to fully support reconnaissance elements occupying the forward-line-of-own-troops (FLOT) due to increased threat from these systems. When support is provided, especially during maneuver, these aircraft often are used in a very counterinsurgency-centric mindset, flying directly above reconnaissance units or performing route-reconnaissance forward of the cavalry. This is a dangerous use of aircraft as it may negate the stealth of maneuver and place them at risk for enemy engagement. While significant emphasis is placed in doctrine on the use of aircraft in an attack role, very little is discussed about their usefulness and employment in a reconnaissance capacity, indicating the need for further refinement. Perhaps most telling is a line from FM 1-100: "No longer is the primary mission of attack-helicopter assets within cavalry units to protect the scouts."[4] Yet 17 years later, we are again challenged with how best to employ these assets.

## Sustainment

DA missions require a robust sustainment plan synchronized to maneuver operations. Formations struggle with establishing a comprehensive plan tied to projected needs 48 hours out, devolving instead into reactionary sustainment operations based on units becoming critical on key items. This is not just an issue in vehicle-based formations but also must be addressed for light and dismounted reconnaissance. During the JRTC rotation, the unit emplaced a long-range-surveillance element forward and also used its dismounted troop to establish long-duration OPs overwatching critical named areas of interest (NAI) along major routes. A lack of a good resupply plan for these elements at one point resulted in all the forward OPs going black on water during the heat of summer for several hours and requiring a

rapid resupply that could have compromised their positions.

Some of the best sustainment doctrine in the Army exists in the cavalry manuals for the simple fact that it is perhaps the most challenging mission the formation must execute. Doctrinally, sustainers must be able to support a FLOT stretching across 30 or more kilometers, potentially with bypassed enemy elements between the logistics release point and the troop's resupply site. Too often, the first sergeant will select (or the commander will dictate) that resupply is brought up extremely close to the screen line to minimize friction and maintain security forward. This creates a dangerous situation with logistics assets placed in vulnerable locations with little reaction time if the enemy decides to attack. A commander must also more fully consider how to echelon his forces off the screen line to continue to provide security and overwatch while achieving the goal to resupply his forward elements. Hence, synchronization to the maneuver plan is key to minimize the time the logistics assets are forward and to mitigate the temporary loss of mounted positions.

Planning for medical evacuation of casualties is a crucial step, especially when operating forward of the brigade and across an extended frontage. Commanders and first sergeants must plan for evacuation contingencies from all forward OP locations, both mounted and dismounted. The unit's casualty collection points must be clearly relayed and updated with the squadron's aid stations to provide rapid reaction and enable repeat trips, if necessary. Also, the squadron's unique mission and operational reach may mean that another battalion's aid station is actually closer to the troop's location than organic assets. This should be communicated from the medical officer down to the troops to further aid in planning. Finally, the most critical piece of the medical plan is to conduct full rehearsals. The first sergeant, medical assets, platoon sergeants and dedicated casualty evacuation vehicles must continuously rehearse and refine routes, to include coordinating for rearward passage points through obstacles if operating forward of a defense.

## Mission command

As the NTC senior cavalry trainer is fond of saying, "The most lethal weapon available to a scout is a hand mike." Indeed, the purpose of the cavalry necessitates the ability to communicate across all echelons, not just to coordinate lethal fires but also for passing information and reports. The most effective tools available to the cavalry community for this purpose are the high-frequency (HF) and tactical-satellite radio systems, though trends are that they go underused due to a lack of training. Units must train on these systems down to the lowest level to facilitate command and control and accomplish the mission. Due to frontage and terrain, it is highly unlikely that frequency-modulation (FM) communications will work effectively across the squadron. Generally, troops are able to communicate with their subordinate platoons and OPs through FM but must then relay via HF to higher echelons. This is acceptable until the point in the battle when the CP loses connectivity or is destroyed. Individual OPs must have a primary, alternate, contingency, emergency plan that includes the understanding they can call directly to higher echelons if they are unable to reach their platoon or troop leadership. If the scout on the ground is staring at the answer to a brigade PIR but cannot communicate that information to anyone, the cavalry is essentially useless.

Commanders also face a dilemma as to how their CP will be manned and who will be tracking data during the fight. Many formations, especially Bradley-equipped units, struggle with the concept of the "fighting executive officer" and bringing that weapon system to bear on the maneuver fight. Although individual commanders can dictate manning guidance, arguably the executive officer's place during the fight is in the CP, synchronizing information received from the scouts, reporting to higher through a variety of communications platforms and allowing the commander to better manage the fight on the ground. Indeed, doctrine indicates this is the executive officer's primary role: "He supervises the troop CP and stays attuned to the tactical situation in the troop's area of operation.

He receives, verifies and consolidates digital and voice tactical reports from the platoons and forwards them to the higher headquarters and to adjacent and following units."[5] Regardless of organization or task, the troop CP must have dedicated and trained personnel with clearly defined responsibilities who are capable of critical thinking and using all the unit's digital systems to manage the battle.



**Figure 3. A troop commander gives an operations order to his key leaders.** *(Photo by CPT Jaison Desai)*

## Protection

Arguably the most overlooked of the warfighting functions, protection is a critical piece that cannot be ignored. After 13 years of operating from fixed sites where perimeter security is provided, the techniques behind local security of the TAA must be re-emphasized. Once again, doctrine provides an effective guide, reminding us, "The requirement for maintaining local security is inherent in all operations. … Local security prevents surprise and is important to maintaining the initiative."[6] The troop commander can use OPs and patrols to mitigate potential threats and ensure the security of his element. This is especially important to the cavalry organization, which is highly likely to have enemy reconnaissance elements attempting to operate in the same key terrain as friendly forces. During one recent rotation, a division tactical group's reconnaissance element successfully occupied an OP within 200 meters of the friendly screen line on the same hill mass and was never identified.

Finally, a discussion of DA and conventional threats would not be complete without considering chemical, biological, radiological, nuclear and (high-yield) explosives (CBRN-E) attack scenarios. While all four units observed here considered and planned for a CBRN-E threat, none brought the appropriate equipment to deal with such

a threat. Each unit was missing at least one critical piece, such as individual protective equipment, decontamination kits or chemical detectors. None of the units was proficient on using the equipment, and only cursory planning was conducted. To be fair, the CTCs are not fully executing CBRN-E contingency events to test capabilities across the BCT, though the frequency of events during rotations is increasing and will continue to improve. One rotation forced the unit to deal with multiple persistent and non-persistent attacks, which clearly took their toll and desynchronized the entire brigade operation at times.

Looking back through team training documents from the late 1990s, it is clear the message of the CBRN-E world will once again be as GEN John J. Pershing stated in 1920: "Whether or not gas will be employed in future wars is a matter of conjecture, but the effect is so deadly to the unprepared that we can never afford to neglect the question."

## Way ahead

Cavalry organizations, including the schoolhouse and training venues, must place a renewed emphasis on training from the OP backward – in other words, focusing on the operation's endstate and planning how to achieve that endstate. If the cavalry's goal is to gain observation along key NAIs and axes of advance, the commander must identify the ideal locations for both mounted and dismounted elements to

achieve that goal. The inherent vulnerability of OPs will force the commander to consider dismounted clearance, preparatory fires and/or aerial observation around these locations before emplacing friendly forces. An effective PIR crosswalk will allow the junior scout to answer SIRs that squadron and brigade can use to answer PIRs and develop the enemy situation. Finally, the training and integration of all forms of communication at the forward OP, troop CP and squadron main CP will enable the scout to effectively relay what he is seeing to higher echelons and truly accomplish the mission he is designed to fulfill.

Regardless of platform, the cavalry needs to focus itself on training for the future hybrid threat and regain its effectiveness as a forward-operating organization. After 13 years of operating as undersized maneuver battalions, cavalry squadrons are once again being placed out front, and brigades are relying on us to set the conditions for the Army's success. It's time to be experts in our field once again.

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## Acronym Quick-Scan

**ABCT** – armored brigade combat team
**BCT** – brigade combat team
**CBRN-E** – chemical, biological, radiological, nuclear and (high-yield) explosive
**CoIST** – company intelligence-support team
**CP** – command post
**CTC** – combat training center
**DA** – decisive action
**DATE** – decisive-action training environment
**FLOT** – forward line of own troops
**FM** – field manual; frequency modulation

**FSO** – fire-support officer
**HF** – high frequency
**JRTC** – Joint Readiness Training Center
**LoA** – limit of advance
**NAI** – named area of interest
**NTC** – National Training Center
**OP** – observation post
**PIR** – priority intelligence requirement
**SBCT** – Stryker brigade combat team
**SIR** – specified information requirement
**TAA** – tactical assembly area
**TRM** – tactical road march

## Notes
[1] FM 3-20.971, *Reconnaissance and Cavalry Troop*, August 2009.
[2] Ibid.
[3] Ibid.
[4] FM 1-100, *Army Aviation Operations*, February 1997.
[5] FM 3-20.971.
[6] Ibid.



**Figure 4. Cavalry organizations, including the schoolhouse and training venues, must place a renewed emphasis on training from the OP backward.**

# Observations from the Opposing Force, Part II:

# Movement-to-Contact Lessons-Learned from National Training Center Rotation 12-05

## by CPT Amos C. Fox

The National Training Center (NTC) hosted its first decisive-action rotation in March 2012. The first mission during the rotation's force-on-force segment was a movement-to-contact between 3rd Armored Brigade Combat Team (ABCT), 3rd Infantry Division, and 11th Armored Cavalry Regiment (ACR) (Blackhorse). Blackhorse defeated 3/3 Infantry during the movement-to-contact in the Central Corridor by destroying 2nd Battalion, 69th Armored Regiment (AR), in the vicinity of the Racetrack and by fixing 1st Battalion, 15th Infantry Regiment, in the vicinity of Alpha/Bravo Pass.

At the time of the rotation, I commanded D Company, 1/11 ACR. My intent with this article is to provide troop-level commanders with planning considerations based on my experience in planning and executing a movement-to-contact at NTC.

The movement-to-contact afforded Blackhorse, 3/3 and the NTC's Operations Group many valuable lessons. In retrospect, I identified four factors that contributed to D Company's success in executing the movement-to-contact:

- First, we operated with an effective mission-command structure that fostered disciplined initiative and risk-taking;
- Second, we effectively organized for combat;

- Third, we developed an effective method of ammunition resupply that allowed the company to maintain continuous pressure and tempo throughout the battle, allowing us to operate within 2-69 AR's decision-making cycle; and
- Lastly, we used our intimate knowledge of the terrain to trade security for speed, allowing us to quickly seize key terrain.

## Blackhorse and Sledgehammer – movement-to-contact in the box

Blackhorse attacked along two axes of approach – one north of the Granite Mountains with C/1/11 ACR fixing 1-15 Infantry and 2-69 AR in the Central Corridor. G/2/11 ACR, the decisive operation (DO), attacked south of East Range Road to seize key terrain (Hill 760). D/1/11 ACR attacked between the Granite Mountains and East Range Road to seize key terrain (the Racetrack) to prevent enemy forces massing on the regiment's DO. Blackhorse had two troops (A/1/11 ACR and H/2/11 ACR) in follow-and-support roles several kilometers behind the main body.

Upon crossing the line of departure, the lead elements of Blackhorse (D/1/11 ACR and G/2/11 ACR) traveled rapidly from their attack positions west

of the Donovia/Atropia international boundary toward the eastern side of the training area to seize their objectives. Both troops' rapid advance was a direct result of the regiment's reconnaissance effort and their knowledge of the terrain.

At Barstow Road, D Company and G Troop transitioned from traveling to traveling overwatch. At this point, we received reports that enemy tanks and Bradleys were about 10,000 meters east to southeast of the Racetrack. G Troop pushed forward to Hill 780, stopping some 6,000 meters short of its original objective at Hill 760. D Company bounded forward and occupied hasty defensive positions along the intervisibility lines around the Racetrack. In proceeding to the Racetrack, D Company was 3,000 meters forward of G Troop, pushing us just outside direct-fire range of G Troop. Because of this, I coordinated with G Troop and changed D Company's target-reference points to cover area that had been previously assigned to G Troop.

The 3/3 Infantry led the attack with 3-1 Cavalry. Upon identifying Blackhorse, 3-1 Cavalry conducted a passage of 2-69 AR and 1-15 Infantry. The 1-15 Infantry attacked north of the Granite Mountains and attempted to penetrate into Echo Valley. During the intelligence-preparation-of-the-battlefield process, Troop C determined the most likely path for 1-15 Infantry would be

through Alpha and Bravo passes. Troop C used this information to develop its course of action (CoA), which had the troop rapidly advance through Echo Valley to pin 1-15 Infantry against the mountain walls as they attempted to advance through the passes. In fixing 1-15 Infantry north of the Granite Mountains, Troop C thwarted 3/3 Infantry's northernmost element, which put all pressure for mission success on 2-69 AR in the Central Corridor.

The 2-69 AR advanced along Flagpole Main Supply Route, passing through Whale Gap. Shortly after passing through Whale Gap, 2-69 split its formation and attacked into the Central Corridor along two axes – one rounding the Snow Cone and north of East Range Road, the other cresting Hill 760 and south of East Range Road. With G Troop stalled at Hill 780, and D Company occupying a hasty defense at the Racetrack, the company made initial contact with 2-69 AR as the lead tanks crested a ridge 2,500 meters to the company's front.

For the next hour, D Company found itself locked in a battle of attrition as 2-69 attempted to use its size to overwhelm the company. D Company made effective use of intervisibility lines, crew drills and ammunition management to destroy 2-69. By the end of the battle, D Company destroyed 25 M-1 tanks, 36 Bradley Fighting Vehicles, three humvees, one OH-58 and various support vehicles from 2-69, rending the battalion combat-ineffective. The destruction of 2-69 AR, coupled with the fixing of 1-15 Infantry, stalled 3/3 Infantry's attack.

## Mission command and starting with why

Perhaps the most imperative aspects of D Company's success can be attributed to the exercise of mission command at all levels within the Blackhorse Regiment. The Army defines mission command as "the exercise of authority and direction by the commander using mission orders to enable disciplined initiative within the commander's intent to empower agile and adaptive leaders in the conduct of unified land operations."[1] At the heart of exercising mission command is mutual trust among all commanders and leaders within an organization. This trust is developed, in large part, during training. Subordinate leaders demonstrate capability and proficiency to their commanders and, conversely, commanders demonstrate capability and competence to their subordinates.

The impetus for the physical application of mission command resides in shared understanding of a common purpose. Another term for "purpose" is "why." "Knowing your why is not the
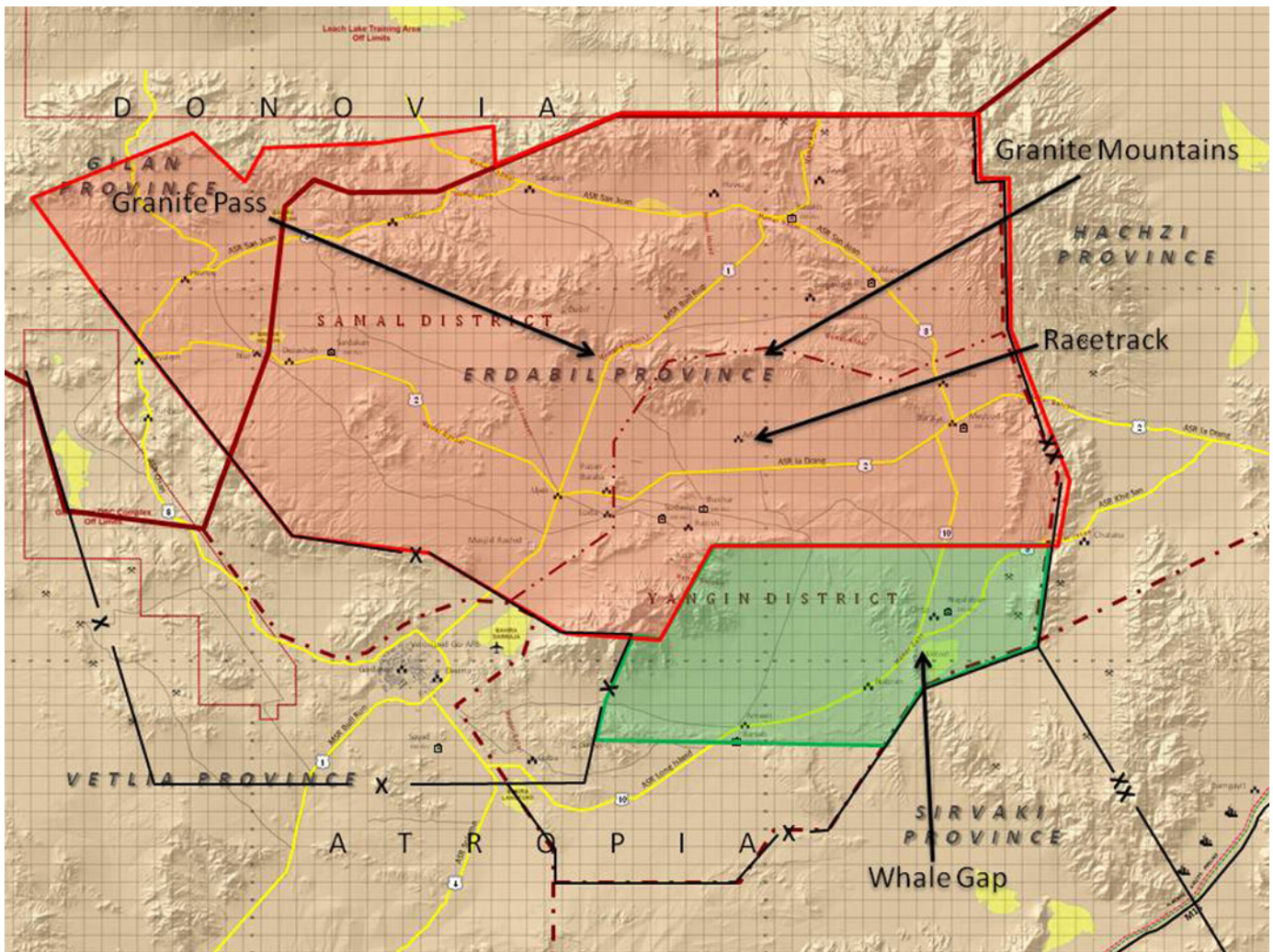


**Figure 1. NTC box.**

only way to be successful, but it is the only way to maintain lasting success and have a greater blend of innovation and flexibility."[2] The purpose, or why, of an operation provides the guiding vision for an operation. The common purpose is generally disseminated in the form of the commander's intent. By effectively communicating the why of an operation, commanders provide their subordinates the freedom to innovate and make bold decisions on the battlefield based on present battlefield conditions.

Commanders, leaders and Soldiers at all levels within 11th ACR developed mutual trust during the preceding months through many individual and collective training events. Individual and collective training facilitated the development of the Soldiers and leaders in their formations. Conversely, the training allowed senior leaders at all levels within the regiment to prove their competence and decision-making capabilities to their subordinates.

Moreover, the trust within the regiment directly affected how the regiment planned operations, delivered operations orders and fought on the battlefield. The squadron spent little time delivering a long, drawn-out operations order. Instead, troop commanders received a brief enemy situation update, a simple squadron mission statement and our respective tasks/purposes, followed by the squadron commander's intent. The squadron commander ensured each of his troop commanders accurately understood the operation's larger purpose and how each troop fit into that larger purpose. By understanding our purpose, troop commanders were better able to see the importance of their mission in relation to the squadron and the regiment.

In D Company, I provided my subordinates with a succinct order, a simple set of graphics and direct-fire-control measures. However, I focused my attention on ensuring my platoon leaders clearly understood the operation's purpose. Our purpose was quite clear for the movement-to-contact – deny the enemy key terrain in the vicinity of the Racetrack to deny the enemy the ability to mass combat power against the regiment's DO. To put it more simply, we were to disallow the enemy key terrain in and around the Racetrack because it would put the enemy in a favorable position on the battlefield.

By clearly articulating the operation's purpose, I provided my subordinates with comprehensible guidance – this is **what** we must do and this is **why** we must do it. Clear guidance reduced ambiguity within the formation, allowing my platoon leaders and subordinate leaders freedom of action to fight the
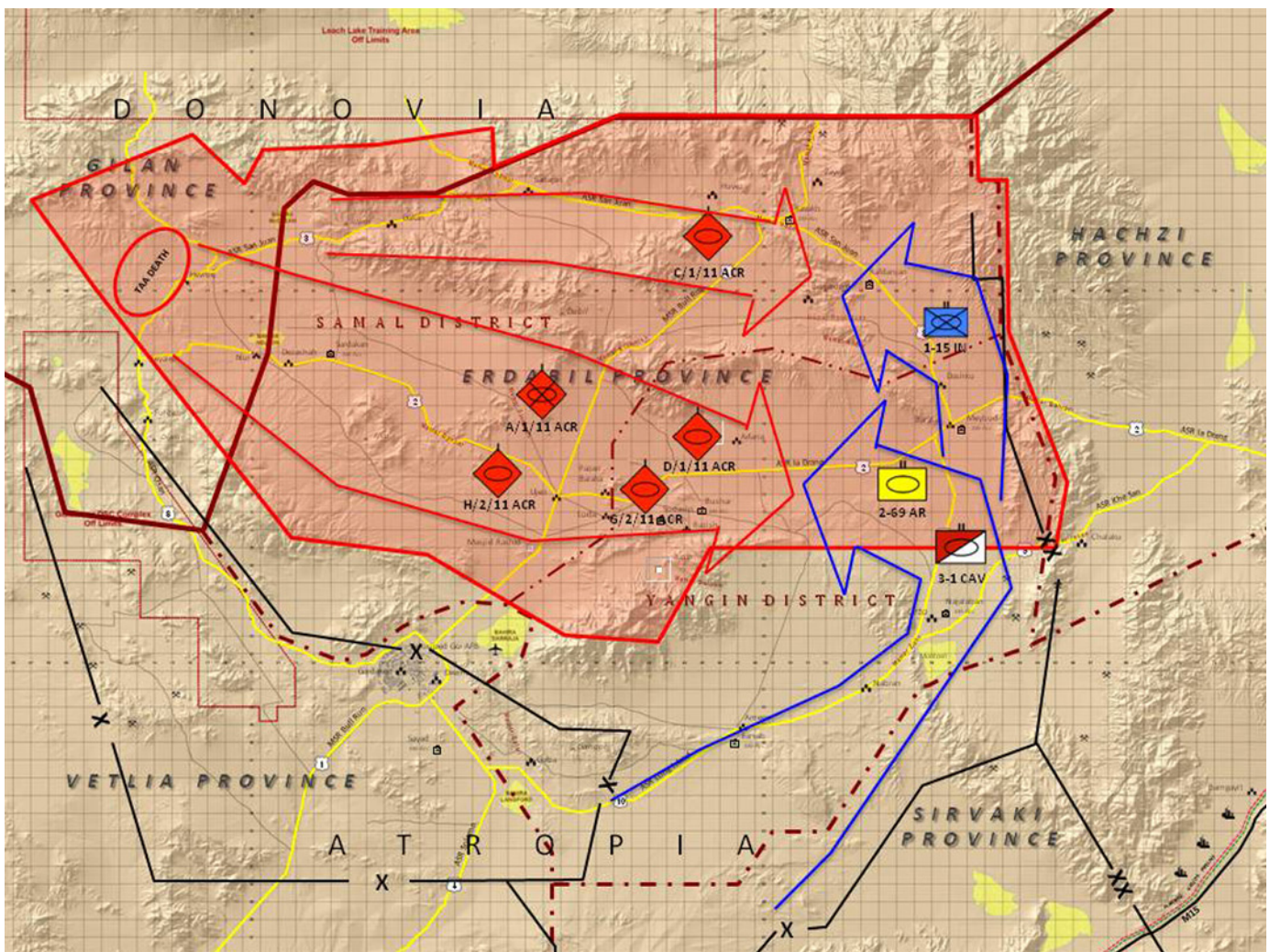


**Figure 2. Movement-to-contact scheme of maneuver.**

**T: Seize key terrain in vicinity of the Race-track**
**P: Prevent enemy forces' ability to mass on the squadron's DO**

**D 1/11 (+)**

**DO** — **HQ D/1/11** — 2x OSV

**1 D/1/11** — 2x MBTs / 3x OSVs — **T: Destroy 8 enemy tanks** / **P: Prevent massing**

**SO2** — **2 D/1/11** — 2x MBTs / 3x OSVs — **T: Destroy 4 enemy tanks** / **P: Prevent massing on DO**

**SO3** — **3 D/1/11** — 2x MBTs / 3x OSVs — **Planning considerations:** -Resupply battle drill / -CATK / -Replace platoon @ 50 percent strength

**SO1** — **K/2/11** — 4x AT humvees — **T: Destroy 4 enemy tanks** / **P: Prevent massing on DO**

**Figure 3. D/1/11 ACR task organization.**

enemy as the mission and conditions on the ground dictated.

Also, clearly articulating the purpose provided me freedom on the battlefield by untying me from continually having to instruct my subordinates on what I wanted them to do. This allowed me to step back and continually assess and reassess the bigger picture. In seeing the bigger picture, I was able to reposition forces and assets much quicker than I would have been able to if I were focusing on the fight at the micro-level. In turn, I was able to operate within 2-69 AR's decision cycle, allowing me to understand and act while they were still attempting to gain an understanding of what was unfolding on the battlefield.

## Fundamentals, organizing for combat and troop formations

Understanding the fundamentals is a key component to successfully executing any Army operation. The fundamentals for a movement-to-contact are:

- Focus all efforts on finding the enemy;
- Make initial contact with the smallest force possible, consistent with protecting the force;
- Make initial contact with small, mobile, self-contained forces to avoid decisive engagement of the main body on ground the enemy has chosen;
- Task-organize the force and use movement formations to deploy and attack rapidly in any direction;
- Keep subordinate forces within supporting distance to facilitate a flexible response; and
- Maintain contact regardless of the CoA adopted once contact is gained.[3]

At the most elementary level, a key to a successful movement-to-contact starts with an effective organization for combat. A commander must begin by considering the factors of mission, enemy, terrain, troops available, time and civil considerations (METT-TC) when determining the most effective method of organizing a formation for combat. Concurrently, a commander must understand his own task-organization before he can allocate forces to meet mission requirements. This assists a commander in focusing all efforts on finding the enemy and making contact with the smallest possible force.

During the movement-to-contact, I had at my disposal three organic tank platoons and a platoon of anti-tank (AT) support from K Troop, 2/11 ACR. My tank platoons consisted of two opposing-force (OPFOR) main battle tanks (MBTs) and three OPFOR surrogate vehicles (OSVs). The AT platoon was a humvee-mounted, tube-launched, optically tracked, wire-guided and Improved Target Acquisition System-equipped force.

Based on previous experience working together, I knew the AT platoon had an

excellent ability to conduct reconnaissance due to its mission as tank hunter/killers. I chose to use the lightly armored, but heavily fortified, AT platoon as the lead element in my formation. I wrestled with this decision for a considerable amount of time during my planning process. I was worried that leading with humvees would make the formation extremely vulnerable to becoming fixed upon initial contact with the enemy. I contemplated leading with tanks and having the AT platoon in a follow-and-support role, but I thought leading with MBTs or OSVs would make our formation easier to identify.

In the end, I chose to lead with the AT platoon because I felt the decision was more in line with the fundamentals of the movement-to-contact. Also, I felt that in pushing the AT platoon far forward of the company's main body and allowing it to conduct reconnaissance pull would enable the company to move rapidly and attain better situational understanding than if I were to lead with my MBTs or OSVs. Furthermore, I assessed that the AT platoon's low profile would limit the enemy's ability to identify the lead element of my formation, thus giving us the advantage to see first, understand first, act first and finish decisively.[4]

I used a diamond formation, which isn't a formation prescribed in Field Manual (FM) 3-90.1, *Tank and Mechanized Infantry Company Team*, but is similar to the company-team wedge formation. As already noted, I led with the AT platoon. The 1st Platoon (the DO) and 2nd Platoon (Shaping Operation 2) were about 500 meters behind the AT platoon serving as the main body, while 3rd Platoon was my trail platoon and moved 500 meters behind the main body. My headquarters element was a terrain feature behind the reserve.

The diamond formation and our task-organization allowed me to rapidly transition the AT platoon to a support-by-fire position and bring my main body forward to mass fires against the enemy. Also, the diamond formation provided depth and multiple angles to engage the enemy, forcing the enemy to focus their attention in multiple directions.

The point in discussing D Company's task-organization and choice of formation isn't to advocate for one approach over another. Rather, it is to point out that "more than one road leads to Rome." Commanders must not be wed to one technique over another. Commanders must continually analyze the factors of METT-TC to best organize for combat. Sometimes this will call for an unconventional approach. The great thing about NTC is commanders can experiment and try different ideas and approaches. Commanders must not fear failure but rather seek to employ the techniques they feel best sets
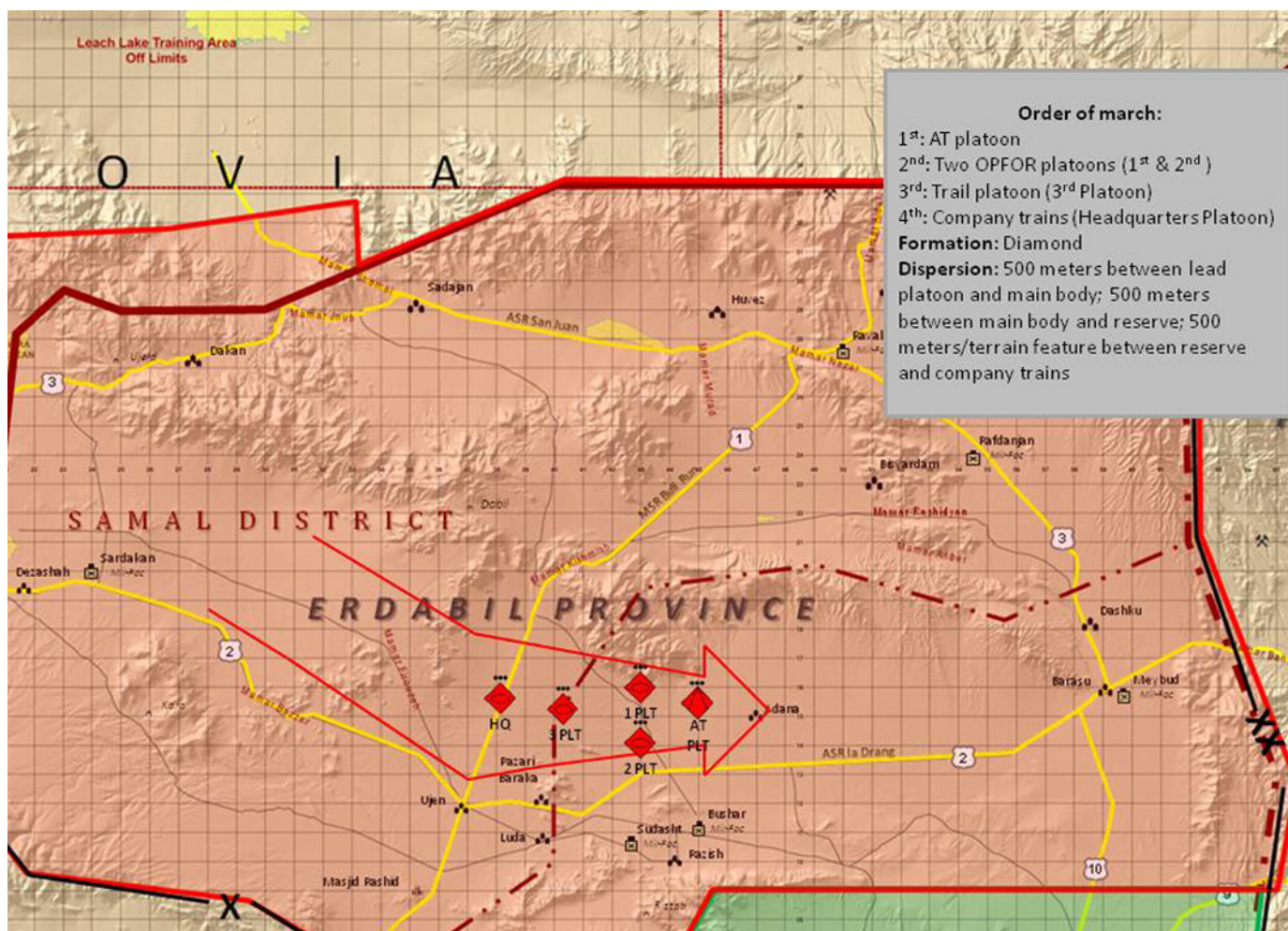


**Figure 4. D/1/11 ACR's order of battle.**
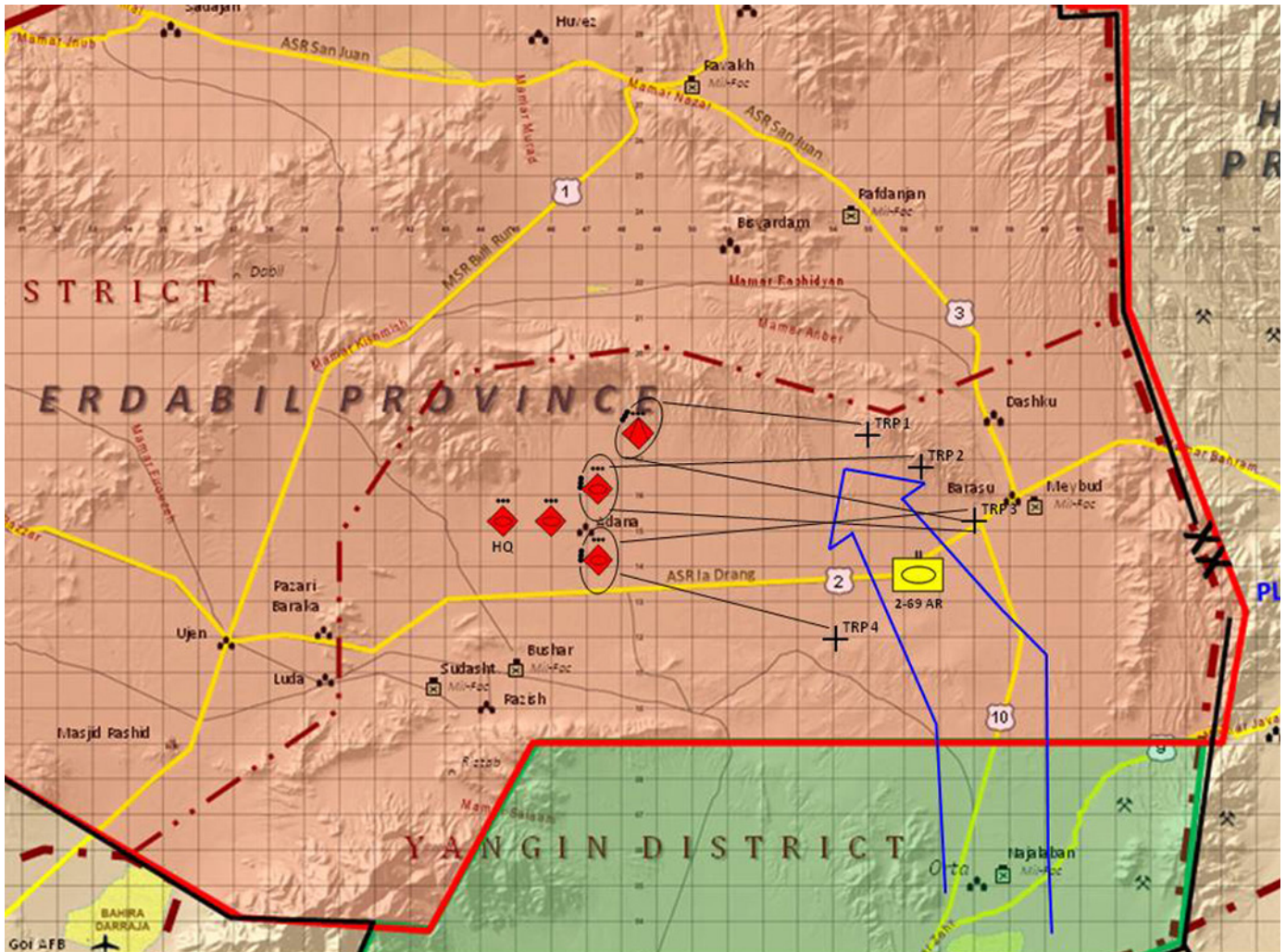
**Figure 5. Direct-fire plan.**

them up for achieving decisive victory in battle.

## Resupply to fight

There is a common misconception across the Army about Blackhorse and logistics – many seem to think Blackhorse has an endless supply of ammunition and is immune to logistical concerns such as ammunition resupply. This is utterly false. Blackhorse must adhere to the same rules for ammunition resupply as the rotational unit.

Ammunition resupply was one of my major concerns as I conducted mission planning. During my planning process, my primary objective was to identify how to maintain the ability to fight continuously – to put it more plainly, I wanted no breaks for matters of logistics. The purpose behind this desire was, I felt, that continuous pressure on the enemy would allow the company to turn the enemy's "time flank," "to

hit the enemy at those times he is not ready; either before he is prepared or after his strength has culminated."[5] Turning the time flank would not be possible if I had to slow or halt my attack to resupply my formation. To combat this, we implemented an ammunition resupply battle drill to allow us to maintain a sustained rate of massed direct fires while allowing us to pull platoons from the fight to resupply.

Our battle drill called for the trail platoon to move from its protected location to replace the platoon fighting on the line, allowing the platoon to retrograde, link up with the headquarters and conduct resupply operations. Upon completion of resupply, the platoon moved back to its forward position on the line, while the trail platoon moved back to reoccupied its position behind the main body.

We conducted this battle drill several times during movement-to-contact,

allowing us to maintain constant pressure on the enemy. In the end, effectively managing logistics while in the fight permitted the company to maintain pressure and tempo, allowing us to obtain the upper hand as the battle progressed.

## Home-field advantage

Another key advantage D Company exploited was its knowledge of the terrain. Many units and Soldiers from across the Army rail against what they perceive as 11th ACR's unfair advantage in always fighting in its own backyard. However, one must remember, "We almost certainly will fight enemies on their home turf. They'll know the good hiding places, defilade positions and roadblocks. The OPFOR thus has a realistic advantage in its knowledge of the terrain."[6]

This idea must not be lost on the

operational force. As such, we will find ourselves on unfamiliar battlefields where the enemy has the upper hand in knowing and understanding the terrain and the local populace. This knowledge and understanding is not an unfair enemy advantage but rather a symptom of war. Moreover, it is something we must willfully accept and something for which we must plan.

In conclusion, the movement-to-contact between 11th ACR and 3/3 Infantry during NTC Rotation 12-05 provides many great learning points. We must remember that mission command enables victory by empowering subordinates and forces – that the power of mission command relies in mutual trust and shared understanding. Next, while we have many manuals that prescribe techniques, commanders must always be thinking and analyzing the situation. They must not fear trying something different to seek out success. And lastly, certain aspects of war will not change – during expeditionary operations, the enemy likely knows the area of operations better than the U.S. Army, and if we don't adequately plan for logistics, logistics will sideline our operations. Commanders must think through these ideas during the planning process. The battlefield is unforgiving; as such, commanders must do everything they can to mitigate this prior to joining battle.

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## Notes

[1] Army Doctrinal Reference Publication 6-0, *Mission Command*, Washington, DC: Headquarters, Department of the Army, 2012.

[2] Sinek, Simon, *Start With Why: How Great Leaders Inspire Everyone To Take Action*, Penguin Group, 2009.

[3] FM 3-90-1, *Offense and Defense Volume 1*, Washington, DC: Headquarters Department of the Army, 2013.

[4] Rosenberger, John D., "Breaking the Saber: The Subtle Demise of Cavalry in the Future Force," Association of the United States Army Landpower Essay Series No. 04-1, The Institute of Land Warfare, 2004.

[5] Leonhard, Robert, retired LTC, *Fighting By Minutes: Time and the Art of War*, Westport: Prager Publishers, 1994.

[6] Nagle, John, retired LTC, "Why the OPFOR Wins," *ARMOR*, March-April 1995.

### Acronym Quick-Scan

**ABCT** – armored brigade combat team
**ACR** – armored cavalry regiment
**AR** – *armored regiment*
**AT –** anti-tank
**CoA** – course of action
**DO –** decisive operation
**FM –** field manual

**MBT** – *main battle tank*
**METT-TC** – mission, enemy, terrain and weather, troops and support available, time available, civil considerations
**NTC** – National Training Center
**OPFOR –** opposing force
**OSV** – (opposing force) surrogate vehicle

# Not Just Infantry with Tanks: Who We Should Be and Why the Army Needs Us to Be It

**by CPT Thomas Spolizino**

Our branch has a problem. Twelve years of primarily low-intensity war has led us down a path where we have forgotten who we are and why the Army needs us to be ourselves. We have completed the mission we were required to do and filled the role the Army required of us, but is that the role the Army needs us to fill in the future? Ask 10 armor/cavalry leaders to define our branch and you'll get 10 different answers. How can we, and why should we, remain a viable part of the force if we cannot even describe who we are?

I found this out firsthand at U.S. Military Academy (USMA) two years ago. I was sent there for Branch Week to inform cadets about our branch and assist in their branching decision. To me, regardless of the stated intent, these events are sales pitches. Each cohort is vying for attention and trying to get cadets to choose their branch. With an Abrams, a Stryker and TV blaring Corb Lund's "I Want to Be in the Cavalry," we had no problem getting the cadets' attention, but once they were there, what were we supposed to tell them? I heard a lot of – and probably said myself – "we're just like the infantry, but

with tanks" or "we are the recon guys." These statements, while not wholly untrue, do not define who we are.

The first definition, "just like the infantry, but with tanks," is completely unsatisfying. If we are just like the infantry other than our association with the tank, what happens when the tank is obsolete? By accepting this definition by association, we consent to, and indeed endorse, a role as a secondary branch. If you want to be infantry but don't make it, go armor/cavalry. Also, if this is all we are, why not simply make a maneuver branch by combining armor/cavalry and infantry?



HARMON

The second definition, "the recon guys," is simply illogical. While we can and should be the proponent for these types of operations, defining ourselves by them is as illogical as being "the security guys" or "the urban operations guys." Doctrinally, reconnaissance is a tactical enabling task, just like security and urban operations; it is a vital part of any operation conducted by any force. We may be the proponent because we are the best at it, but we cannot exist to do only that.

As military professionals, we inherently understand the value of a mission statement. It guides our operations and the maintenance of unity of effort. A strong definition of our branch will serve as a mission statement, giving us that same direction and unity. It is important to ensure we have a clear vision of who we are and how we fit into the Army to ensure we can guide all our efforts to support that vision.

Since the definitions described above, and many others that are regularly thrown around, are inadequate, we need to establish a definition that truly describes who we are as a branch, what we value and what we bring to the Army team that is different from every other branch. Adopting a refined definition that can be widely accepted will ensure our relevance and help us continue to be an integral part of the force for many years to come.

## Proposed definition

*We are mounted maneuverists, specializing in maneuver operations defined by big spaces, long distances and overwhelming firepower. We use a variety of platforms and weapons systems to fight for information, find the enemy, engage and destroy him, exploit our success – and the success of others – and protect friendly formations from the same. We value flexible leaders who can think quickly, understand large swaths of the battlefield without directly observing it and lead in a highly decentralized fashion.*

This definition is imperfect, but most would agree with the basic tenants of it if it were used to define "tanker," "heavy cavalry," "Stryker cavalry" or "light cavalry." The key is that it defines us as a branch by our culture, values and capabilities, not by our equipment

or how we differ from the infantry. Words have meaning, so the next few paragraphs will break down the proposed definition and explain what it really means and what its limitations are.

The term *mounted maneuverists* is probably not the right one, but I have been unable to find a better alternative. Not only is *maneuverist* not actually a word, but *mounted* implies a devaluation of dismounted operations. The purpose is to include all maneuver operations that have specific characteristics and all leaders who hold certain standards under the cavalry umbrella, so we probably need to find a better term.

We start to hone in on our branch's way of thinking by *specializing in maneuver operations defined by big spaces, long distances and overwhelming firepower*. We frame our problems with mapsheets instead of grid squares. While we absolutely must train and structure ourselves to conduct all forms of maneuver operations across the entire spectrum of conflict, we look at these problems in a novel way, focused on rapid maneuver over large areas using devastating firepower.

*We use a variety of platforms and weapons systems.* Cavalry leaders must be flexible and agile enough to not only handle the huge areas of operation (AOs) and firepower they are likely to be assigned, but to do so using any platform the Army may offer. Our leaders will be assigned to units organized around tanks, Bradleys, Strykers, humvees and dismounted teams. The key is that we are always expected to take on large AOs and operate in a decentralized fashion. It does not matter what organization we lead, we will plan and conduct similar operations in a similar fashion.

Cavalry organizations *fight for information, find the enemy, engage and destroy him, exploit our success – and the success of others – and protect friendly formations from the same*. While this list is certainly not all-inclusive, it covers the basic tasks a force described by the proposed definition is best suited to accomplish as part of a combined-arms team. These tasks are also non-doctrinal because they focus on

themes in warfare that have existed for a long time and are likely to retain their relevance long after the current doctrinal words go out of vogue.

*We value flexible leaders who can think quickly, understand large swaths of the battlefield without directly observing it and lead in a highly decentralized fashion*. This statement is a natural outgrowth of the way of conducting operations described in the previous paragraphs. If our formations are focused on operating in large areas using a variety of platforms to conduct a diversity of tasks, our leaders will be required to display these characteristics. Our leaders must have tactical and operational vision so they can understand situations they cannot personally see, based solely on their subordinates' reports; can direct tactical actions based on that understanding; and can report the situation clearly to their higher headquarters. Operating in this fashion requires decentralized leadership. Our sergeants will have primary responsibility for tanks or teams widely separated from their leadership. We must trust these young leaders and empower them through intent-based guidance, or our operations will fail. This is not intended to devalue other leadership attributes, but we must differentiate what our leaders need to be able to do that may not be as valuable in other branches.

Even if this definition is unsatisfying, incomplete or even incorrect, the key is to positively and clearly define ourselves. Who are we? What do we do? What do we value as a group? These questions must be addressed, and they cannot be answered by why we are different from other branches, what platforms we use or at which doctrinal tasks we excel.

## Impacts of adopting this definition

When we formally adopt a definition of who the branch is, there will be impacts. If there are not, we probably haven't done it correctly. So let us assume that the definition proposed above is adopted wholeheartedly by the entire cavalry community and is instantly translated into doctrine, mission statements, etc. – what impacts could happen within the force?

**Figure 1. Defining the branch as "just like the infantry, but with tanks" is not only unsatisfying, but it is inaccurate. If we are just like the infantry other than our association with the tank, what happens when the tank is obsolete? By accepting this definition by association, we consent to, and indeed endorse, a role as a secondary branch.**

Our recruiting and officer-accessions efforts may not increase quantitatively (the numbers we accept are controlled by factors largely outside our control and are completely independent from our internal culture) but should increase qualitatively. The people, both officer and enlisted, choosing our branch should have a clearer understanding of what culture they are joining. Those cadets at USMA, to whom I struggled to explain our branch, will receive a clear and concise picture of what our branch is and what type of leader they will be expected to be. That does not mean they will be able to practically relate to it (almost all their training and exposure is, by necessity, light-infantry based), but they should be able to perceive if our culture is a good fit for them personally.

Our retention and evaluations criteria should change to reflect the attributes we value as an organization. If a smart, fit and generally good officer or noncommissioned officer (NCO) has not displayed the ability to lead and operate in a manner consistent with our values and methods of operation – and does not show the ability to adapt – that officer or NCO should be encouraged, through retention and evaluation efforts, to find another place where his talents are better suited. This is a harsh stance in our current environment, as levers to change the military-occupational specialties or branch of an individual are not plentiful, and poor evaluations could be career-ending. But if

someone does not have what it takes to be a cavalry leader, it is irresponsible to let him continue as one.

Our schoolhouses have, as they should, led the charge in refining our definition of ourselves, but without community-wide recognition and acceptance of the definition, they can only do so much. The adoption of a refined definition will affect training and schooling processes and focuses in more ways than can possibly be listed here, but the general focus of our courses and our training pipelines may need adjustment (minor in some cases and major in others) to be in line with a refined definition.

For example, our officer-training pipeline up to the captain level may need some refinement. The Armor Basic Officer Leadership Course (ABOLC) seems pretty well in line with the proposed definition already, as do certain specialty schools such as Army Reconnaissance Course and Cavalry Leader's Course. The proposed definition also does not devalue skills courses – such as airborne, air assault, Pathfinder and Ranger schools – as long as they are used to develop beneficial tactical and leadership skills and are not requirements to create strong cavalry leaders. However, the combination of the armor and infantry captain's career course into the Maneuver Captain's Career Course (MCCC) may need to be reexamined. If we define our way of thinking as fundamentally different

from the way an infantry officer needs to think, the junior-captain level may be too early to start training our officers in the same fashion.

Finally, we need to rename ourselves. The very name *armor/cavalry* shows everyone that we do not know who we are. You may note that throughout this article, I used *armor/cavalry* to describe our confusion or highlight our faults, and I used the term *cavalry* when describing who we should be. That was an intentional way of highlighting the difference between a concise and clear definition and a confusing and convoluted one. Whole articles can be, and hopefully will be, dedicated to this topic (such as "Cavalry Branch: a Redesignation for the 21st Century," **ARMOR**, January-February 2014), but the proposed definition best describes the role of cavalry throughout history. Just because we do not use horses anymore doesn't mean our role in the current force is really different from the cavalry of Alexander the Great at Gaugamela or Wellington at Waterloo. The platforms and tactics may have changed, but the values, culture and tenets have not.

## Does the Army still need us to be this way?

As we strive to define ourselves, the question of relevance should always be asked. If we define ourselves in this way, are we relevant to the current and

future Army? If the answer is no or maybe, we should probably keep working. If the answer is yes, we should ask if the definition truly works. Once we come up with a definition of ourselves that provides the Army with a relevant actor on the current battlefield and on potential future battlefields – and accurately reflects our culture, values and history – we should work to implement it.

We've already discussed how the proposed definition accurately reflects who we are, and it meets the relevancy requirement through one main point. It promotes diversity in thinking tactically through problems. If we look at maneuver and tactics through a different lens than our infantry counterparts, there will always be at least two different approaches to solving problems. The infantry way may be more appropriate in certain circumstances and will likely dominate the current battlefield. However, there are certainly circumstances in which the cavalry tactical approach – focusing on flexible solutions, covering large geographic spaces and using overwhelming firepower – will be more suitable.

Differentiating two ways of thinking about maneuver also creates senior leaders who look at operations and strategy differently. Our mental framework for considering problems is formed during our earliest exposure and is typically only adjusted in a slow and incremental fashion thereafter. A young leader indoctrinated into the cavalry way of thinking about maneuver as a young lieutenant, captain, sergeant or staff sergeant will likely carry that thought process into his brigade or division command or command sergeant major position. This ensures the Army has formations that look at and solve problems through novel methods instead of through the narrow range of possibilities caused by canalizing thought processes into a single culture.

## Implementation

If we can agree that there is an identity problem within the branch, that the current definitions are inadequate and that the one presented above is both precise and relevant, what next? How do we implement this culture shift and make it stick?

First, accept the definition and widely propagate it. Both the officer and NCO leadership within the armor/cavalry community must come together and distill an accurate and relevant definition of what our branch should be. Perhaps it is the one proposed here. Maybe it is one of the two dismissed in the introduction. Whatever is selected, the definition must be provided to the force and included in our doctrine, publications, briefings and anyplace where cavalry operations are discussed.

Recruiting and accessions were discussed earlier as an impact of the change, but to institutionalize the new definition, we must alter our recruiting and accessions efforts. These efforts must target people who think like cavalry leaders early on and get them to join our ranks. This is not easy and will never be perfect, but wherever a contribution to the system can be made, focus should be placed on getting individuals with the right mindset into our branch.

As an example, the USMA "talent-based cadet-branching model" allows branches to input their targeted attributes. How closely a cadet mirrors those qualities is part of the formula for which branch the cadet should join. When I went to USMA for Branch Week, I was given a PowerPoint slide that said what cadet traits Armor/Cavalry Branch valued. Physical fitness topped the list. While physical fitness is certainly important, one could make an argument that other attributes (flexibility, adaptability, ability to work in ambiguous situations, tactical and operational vision, ability to delegate and lead through intent and guidance, etc.) would be more applicable to the definition proposed.

Another key to implementation is to ensure the appropriate people are retained and evaluated properly. This was also covered earlier, but the key to implementation is to ensure that all leaders who are evaluating cavalrymen understand what values and qualities they should be espousing. For example, there is a widespread belief that some leaders will evaluate officers differently based on Ranger qualification. If cavalry does not place heavy emphasis on that type of qualification, it

should not dramatically change how those officers are evaluated, regardless of the formation in which they may be serving. As a branch, we must protect and promote leaders who are leading and succeeding in a manner consistent with our standards and censure those who unfairly evaluate and retain based on values, characteristics and qualifications that are not as important in our culture.

Full implementation will require changes to our schooling and training pipelines, but as the key points were covered effectively in a previous section, they will not be restated here.

To remain a relevant part of the force, we must ensure that our leaders, fully indoctrinated into the cavalry way of thinking, are given opportunities to lead at every level. We are numerically about one third of the maneuver force (Armor Branch and Infantry Branch), so we should have about one-third of all battalion commanders and command sergeants major and about one-third of all brigade commanders and command sergeants major. While we seem to be doing well here, the "immaterial" nature of these positions has the potential to – and there are some indications it already is – slide toward an infantry majority. There are many ways to address this problem, and some would argue that it is not really a problem, but it merits study and consideration.

Finally, the key to all these implementation efforts will be a clear and widely distributed understanding of what cavalry leaders and formations can and should be doing. In the current operating environment, our cavalry squadrons are more often used as small rifle battalions than for the missions they were designed for and intended to accomplish. Those squadrons get the job done and do what they are required to do, but along the way, parts of their identity, role and purpose are being lost. As we move away from Afghanistan and Iraq, it is time to re-educate leaders of all branches on cavalry roles and responsibilities. Continuing to treat cavalry squadrons like small rifle battalions is just as incorrect as continuing to use the fires battalions in that fashion.

## Conclusion

After a dozen years of war that often required us to think and act in a manner not directly in line with our culture and role in the Army, we have a reduced understanding of who we are and what we should be doing. It is critical that our leadership refine the definition of our force to ensure it is both correct and relevant and clearly distinguishes us, in a positive manner, from other branches. The definition proposed here is but one of many possibilities, but we need to pick a side and run with it or face the slow and continual loss of our identity.

There are many among us who agree we have an identity problem but address it in a completely different light. The authors of "Ideas on Cavalry" (*ARMOR*, October-December 2013) and "Keeping the Sabers Sharp: Maintaining Relevance in the Modern Era" (*ARMOR*, November-December 2012) are good examples of this. Their articles provide telling counterpoints to the ones given here, and all points of view should be taken into consideration. The key is to define ourselves.

We are fundamentally different from the infantry. We were conceived and designed in a fashion, consistent with history, which provides the Army with a different view on maneuver and tactics. The very nature of our operations causes us to think, act and lead in a broad and decentralized manner.

We are cavalrymen. Our history is as long as that of warfare itself. Just because we do not ride horses anymore, and we have done our part during the last 12 years of war, doesn't mean the essence of who we are as a force and why we are relevant to the future has changed.

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| Acronym Quick-Scan | |
| --- | --- |
| **ABOLC –** Armor Basic Officer Leadership Course | **NCO** – noncommissioned officer |
| **AO –** area of operation | **USMA** – United States Military Academy |
| **MCCC –** Maneuver Captain's Career Course | |

# Cavalry Battle at Sailor's Creek

## by CPT Derrick Jerke

"My God," said Confederate GEN Robert E. Lee as he watched the Battle of Sailor's Creek unfold. "Has the army dissolved?"[1] In some respects, it had. Union COL Henry Capehart applied reconnaissance fundamentals[2] and characteristics of the offense at Sailor's Creek April 6, 1865, to achieve a decisive victory over Lee's army. The specific characteristics of the offense on which Capehart capitalized were audacity and tempo.

## Setting conditions

By April 1, 1865, GEN Ulysses S. Grant and the Union Army were camped east of the road that connected Richmond and Petersburg, VA. Dense fog that morning provided cover for the evacuation of Lee's Army of Northern Virginia from Richmond. Lee knew that he was outnumbered in manpower three to one and that the Union was about to attack the Confederate capital.[3] Confederate President Jefferson Davis authorized the Richmond mayor to peacefully surrender the city to the Union.[4] He then relocated the capital to the town of Danville, 145 miles southwest on the North Carolina border.

Petersburg, a supply town with five railroads and advanced road networks about 25 miles south of Richmond, was the next Union prize. Grant believed it held strategic importance if the Confederates surrendered when they ran out of food and supplies.[5] In fact, Grant had kept Petersburg under siege for 10 months.[6] On April 2, the Union Army attacked the city, slicing through 10 miles of Confederate breastworks, and gained control of the garrisoned resources. Confederate defensive positions did not hold during the massive attack, and Grant's army captured the city.[7] The Union victory at Petersburg forced the Confederate soldiers garrisoned there to evacuate. Since these Confederates desperately needed food, Lee issued orders for all his remaining units at Richmond and Petersburg to link up at Amelia Courthouse, where he believed there were necessary food supplies.[8]

For the next two days, Grant's army conducted hit-and-run attacks on Lee's retiring army as it closed the distance. The Confederates were hungry, exhausted and dirty. MG Philip Sheridan, leader of the Union cavalry, believed the Confederates' endstate was

to refit in Danville. There was a railroad station along their route in Jetersville that could transport Lee's army directly into Danville. Sheridan understood this, and, on April 3, ordered MG George Crook to send his division to Jetersville and the railroad crossing south of the town near Burkeville. There the Union would set up defensive positions with cavalry and infantry to block Lee's army from advancing southeast to its objective.[9] Crook's division was dug in to hasty fighting positions by the evening of April 4, waiting for the Confederates to approach.[10]

Lee's troops arrived at Amelia Courthouse April 4 expecting to find 350,000 rations. Instead, there were only weapons and ammunition, so he pleaded with the locals to offer what they could to refit his desperate army.[11] He ordered his army to move out in 24 hours, which was a dangerous delay because the Union army was catching up to his position. Scouts reported to Lee on the morning of April 5 that the Union had set blocking positions at Jetersville with cavalry and at Burkeville with infantry. Lee knew the route to Danville was impassable
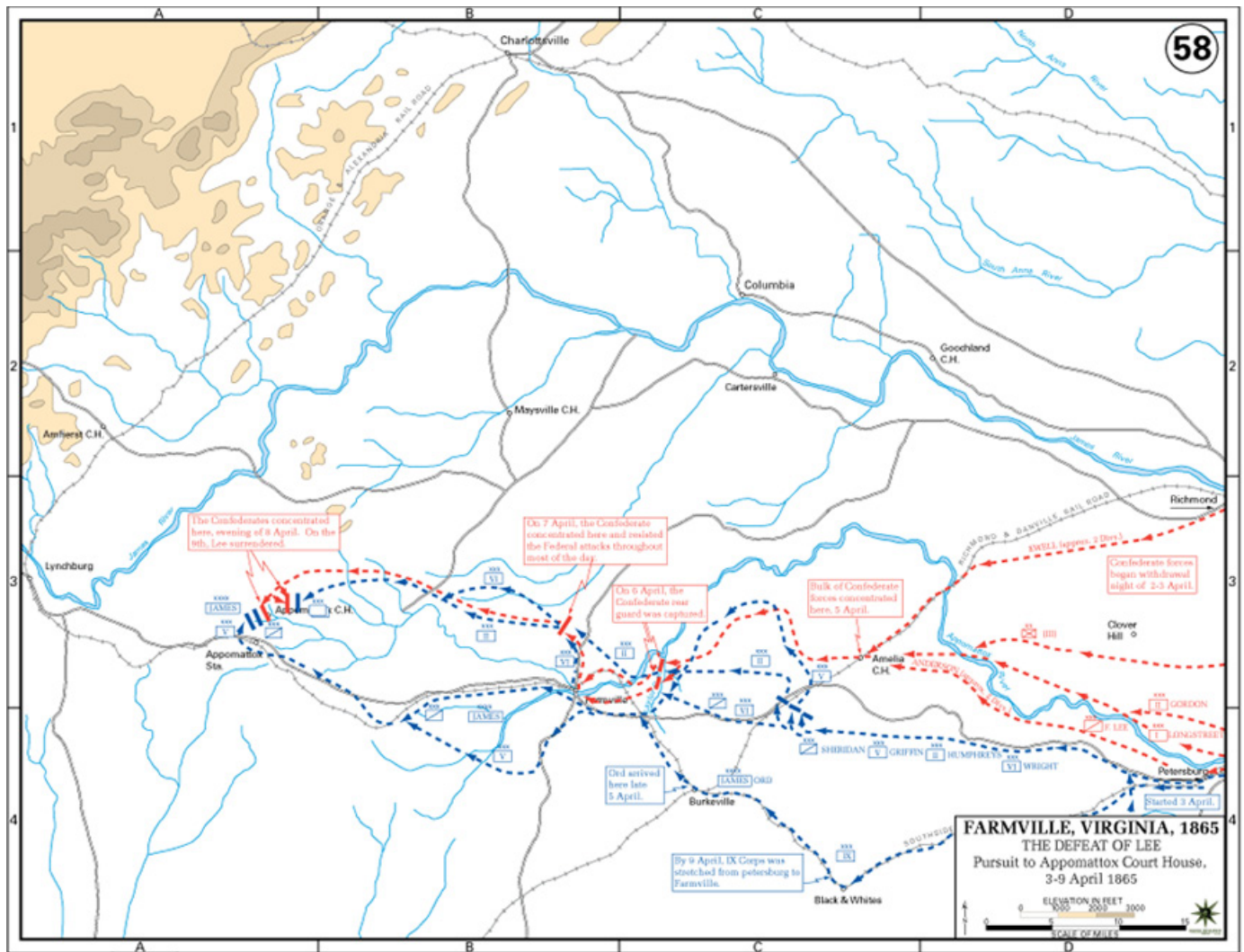
**Figure 1. "Satellite" view of entire battle area from Petersburg, VA, where Fort Lee is today, to Appomattox Court House, where Confederate GEN Robert E. Lee surrendered (left side of map). (Union forces are depicted in blue; Confederate in red.) The engagements near Sailor's Creek occurred about the middle of the map on April 6, 1865.** *(Map courtesy of the Department of History, U.S. Military Academy at West Point; accessed from West Point Website, http:// www.westpoint.edu/history/sitepages/atlases.aspx. American Civil War > Northern Virginia, 1864 > The Defeat of Lee, 3-9 April 1865. Used with permission.)*

and ordered his army to move out along Amelia Road toward Lynchburg.[12] The Confederate army moved out April 5 west toward Lynchburg, but the soldiers would have to cross Sailor's Creek before they reached their destination. It was there the ragged Confederate outfit would meet their match in Sheridan's favored sons.

Sheridan's division commanders were BG Thomas Devin, Crook and BG George Custer. Custer commanded 3rd Division with three brigades. His 3rd Brigade commander was Capehart, who commanded cavalry squadrons from West Virginia and New York.[13] He was to play the greatest role in thwarting the Confederates at the creek.

In 1861, Capehart had been serving the First West Virginia Cavalry Regiment as regimental surgeon. His leadership during the retreat at the Battle of Mine Run in 1863 had earned him command of the First West Virginia Cavalry Regiment.[14] For the next year, he employed sound battle tactics and had trained an aggressive regiment. His soldiers, farmers turned cavalrymen, fought hard and frequently conducted the decisive mission in major battles such as the Third Battle of Winchester. When 3rd Brigade had needed a new commander in September 1864, Sheridan called on Capehart to fill the position.[15]

## Sailor's Creek

Sailor's Creek was 57 miles southwest of Richmond, 64 miles west of Petersburg and 100 miles northeast of Danville. The terrain at Sailor's Creek consisted of rolling hills that progressively declined into a shallow valley next to the creek. There were patches of wooded forests around the area, but large amounts of open farmland dominated the landscape. J. Hott owned one of the farms nearest where the battle occurred. His house was located near a road intersection where the northeast-to-southwest road, called Deatonsville Road, crossed a road that ran due west to Farmville.[16, 17]

LTG Richard S. Ewell and LTG Richard

H. Anderson commanded the two Confederate corps that fought at Sailor's Creek. Another corps, commanded by LTG James Longstreet, was also part of Lee's army. Longstreet ordered his corps to continue forward to Lynchburg, creating a five-mile gap between his corps and Anderson's. Union cavalry established a roadblock in the gap oriented toward Anderson's direction of advance.[18] This forced him to secure defensive positions on the high ground along Danville Road orienting southeast. A third corps, commanded by Ewell, maneuvered into a defensive position on the high ground paralleling Sailor's Creek on the west bank. It was oriented northeast to defend against the Union's 6th Corps.

Custer maneuvered his division of mounted cavalry south of the road intersection. At around 7 a.m. April 6, he finally caught up with the rear trains of Lee's army. He attacked the wagon trains and subsequently captured more than 300 supply wagons and ambulances, in addition to 13 artillery pieces that had never been fired.[19] This event set the conditions for Capehart's decisive engagement later that day. At about the same time, the corps of both Anderson and Ewell could advance no further because of a Union blockade. Their soldiers prepared hasty defensive positions. Custer ordered his men to burn the wagons. Once they were smoldering, Custer's division continued westward.

The Union blockade on the Danville road forced Anderson to halt his entire formation near Hott's farm west of Sailor's Creek. He arrayed his corps along the road, oriented toward the south and southeast toward the creek.[20] His brigades used the high ground and temporary entrenchments of rails and earth to their advantage. Confederate soldiers were arrayed three deep, as was customary in European defensive tactics.[21] Ewell arrayed his corps along the west bank of Sailor's Creek. Ewell's right flank and Anderson's left did not connect because their haste of setting defenses hindered any coordination. As a result, a large gap existed between the two.[22]

Leading Custer's division was Capehart's 3rd Brigade. The brigade, known as the West Virginia Brigade, was

about 1,400 cavalrymen strong. Most were farmers from Pennsylvania or Ohio with significant horse-riding experience.[23] At around 2 p.m., Capehart's brigade approached the gap between Anderson's corps and Ewell's corps. This was the first threat contact Capehart had with Anderson's corps. Understanding the array of enemy forces and identifying the vulnerable gap in the Confederate lines, he developed the situation rapidly and lined up parallel to Anderson's northeasternmost flank.[24]

Capehart ordered his regiments into a tactical formation orienting on his objective. Two regiments formed up online, spanning a large portion of the battlefield with horse cavalry and Spencer carbines. A third regiment lining up on the right side of the formation was set up in squadron columns to reinforce Capehart's right flank.[25] At this point Capehart was transitioning from conducting reconnaissance to preparing for an offensive attack.

Capehart positioned his third regiment in a squadron column on the brigade's right flank so he had freedom of maneuver. As mentioned, Anderson's left flank was not connected to Ewell's right flank. If Capehart had not reinforced his right flank, the Confederate defenses might have easily defeated his men. Ewell's right flank could have closed the gap after the West Virginia Brigade had ridden through the lines

and counterattacked the rear of Capehart's formation from two angles, but Capehart did reinforce that right, ensuring freedom of maneuver to retreat to the original Union lines if he needed to.

His entire brigade formation used the rolling terrain to its advantage. As it maneuvered off the road in a northwest direction to approach the gap in the Confederate lines, Capehart used the rolling terrain's intervisibility lines to cover his approach. He stopped at the maximum effective range of the Spencer carbine carried by his troopers.[26] A hill separated Capehart's cavalry from Anderson's corps. As Capehart went to reconnoiter the enemy position from atop the hill mass, Custer enthusiastically rode from the Confederate lines toward the West Virginia Brigade carrying Confederate battle flags from their defensive positions. Bullets from Confederate rifles were flying in his general direction of advance. His horse was struck in the chest and collapsed, but Custer was able to safely dismount with the stolen battle flags still in hand.[27]

Capehart immediately realized the Confederates had to take time to reload their rifles. In an effort to report all information to his superior officer as rapidly as possible, he recommended to Custer that his brigade attack. Custer agreed and ordered the West Virginia Brigade to charge.[28] The order



**Figure 2. Sailor's Creek Battlefield, looking from Ewell's right across the creek. Hillsman House – from which Union troops shelled Ewell's troops – is visible in the background.** *(National Park Service photograph, 1936)*
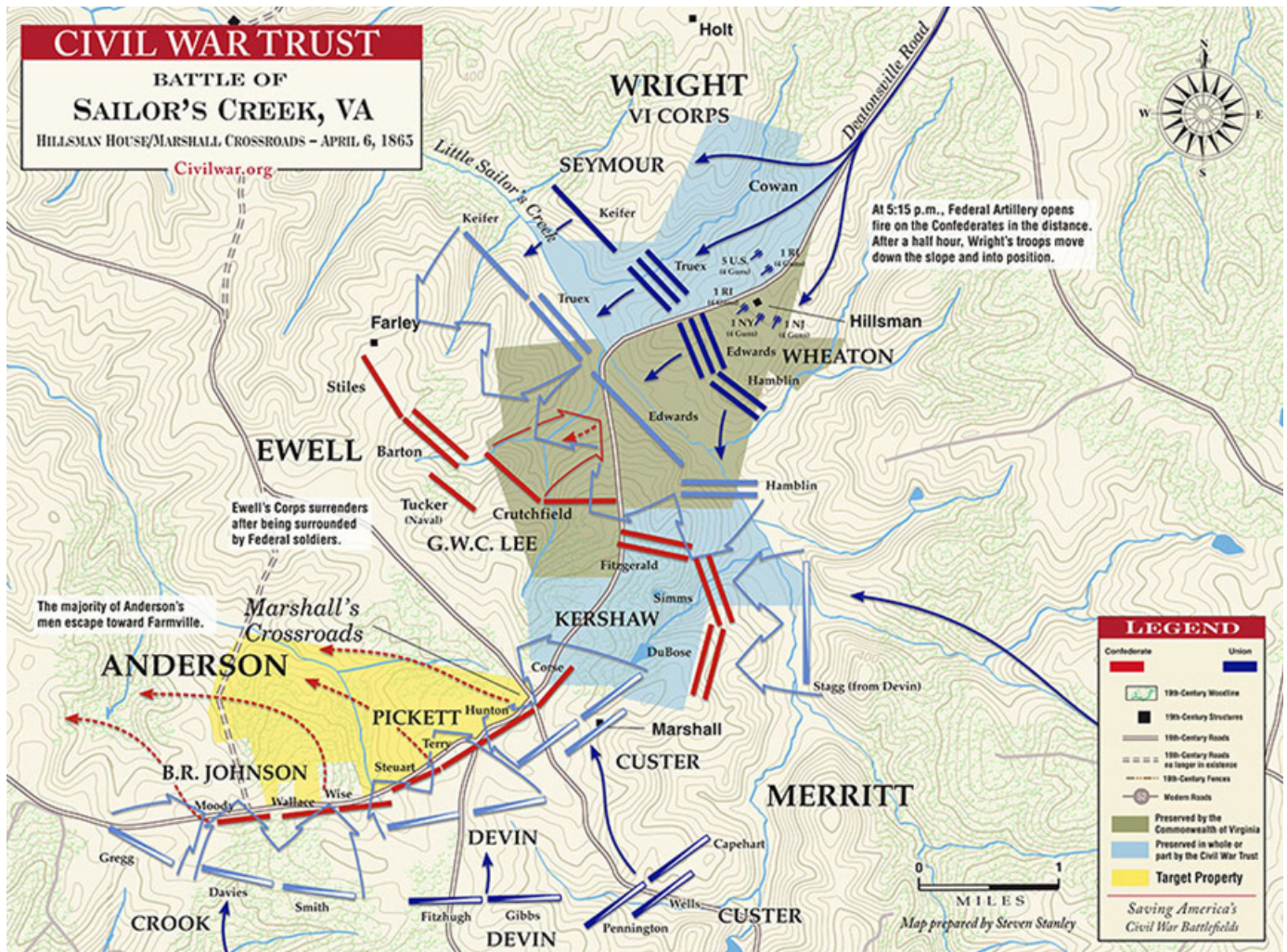
**Figure 3. Deployment of Union and Confederate forces around Sailor's Creek.** *(Map by Steve Stanley; copyright Civil War Trust; republished with permission from Civil War Trust)*

to attack was the transition from using fundamentals of reconnaissance to characteristics of the offense. Capehart took his position in front of the formation, with the brigade bugler next to him. Capehart ordered the bugler to sound the attack.[29]

The cavalrymen put all 1,400 horses into a trot. This was the customary opening speed for a cavalry attack. Immediately, the formation launched the horses into a run, which demonstrated the high tempo, a characteristic of the offense, of the Union attack. Capitalizing on the horses' speed, Capehart's cavalrymen, carrying an array of drawn sabers, carbines or Colt revolvers, smashed through the defensive positions and through the three lines of Confederate infantry.[30] The West Virginia Brigade's audacious attack frightened the already demoralized Confederate soldiers, and they threw

down their weapons and surrendered to Capehart's cavalrymen.[31]

Capehart continued the attack until he was past Anderson's line and halfway north of Ewell's positions. The gap between Anderson and Ewell had allowed Capehart to envelop both lines. Unfortunately for the Union, most of Anderson's corps escaped the battle by retreating northwest to Farmville. However, the First New York Cavalry Regiment, the only non-West Virginia regiment under Capehart's command, continued its attack to Ewell's command post. There the cavalrymen captured Ewell and MG Custis Lee. Both sides, in states of confusion, degenerated to hand-to-hand combat. Soldiers picked up rifles to use as clubs. Enlisted Soldiers and officers alike punched and beat others to death on the battlefield.[32]

Capehart's West Virginia Cavalry

brigade had exploited a gap in the Confederate line, allowing the Union to capture more than 20 percent of Lee's army. In total, more than 8,000 Confederate soldiers – including eight Confederate generals – were killed or captured.[33] Capehart achieved this by employing fundamentals of reconnaissance to gain operational understanding of the situation at Sailor's Creek. By following the fundamentals, his cavalry brigade gained contact with the Confederate army, developed the situation, identified where to strike the Confederate line and retained freedom of maneuver. The West Virginia Brigade, in true cavalry fashion, easily transitioned from conducting reconnaissance to an offensive attack. Capitalizing on the audacity and tempo that benefited the mobile firepower only horse cavalry afforded, Capehart destroyed the Confederate line.

In this battle, Union cavalry was able

to close the distance with a Confederate line that had a significant gap. The gap was a tactical error on part of the Confederate generals in charge. It is impossible to determine if the outcome of the battle would have changed if the Union attacked the gap with infantry instead of cavalry. Cavalry charged at a faster tempo than infantry was able to, so Anderson and Ewell never had enough time to adjust their lines. Horse cavalry had more mobility than infantry. Infantry did not have the destructive effects of a saber and repeating carbine characteristic of a cavalry unit. What history tells us in this battle is that the conditions surrounding both Union and Confederate forces led to a decisive attack by a cavalry brigade. The result of the battle significantly contributed to Lee's surrender at Appomattox Court House April 9, 1865.

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# Notes

[1] Winik, Jay, *April 1865: The Month That Saved America*, New York: HarperCollins, 2001.

[2] The fundamentals of reconnaissance are 1) ensuring continuous reconnaissance, 2) not keeping reconnaissance assets in reserve, 3) orienting on the reconnaissance objective, 4) reporting all information rapidly and accurately, 5) retaining freedom of maneuver, 6) gaining and maintaining threat contact and 7) developing the situation.

[3] Winik.

[4] Ibid.

[5] Schultz, Duane, *Custer: Lessons in Leadership,* New York: Pelgrave Macmillan, 2010.

[6] Winik.

[7] Rackliffe, Marjorie, "The Crater," *Cobblestone*, Vol. 35 Issue 1, 2014; web.a.ebscohost.com, accessed May 27, 2014.

[8] Davis, Burke, *To Appomattox: Nine April Days 1865*, New Jersey: Burford Books, 1959.

[9] Ibid.

[10] Ibid.

[11] Ibid.

[12] Ibid.

[13] Humphreys, Andrew, *The Virginia Campaign of '64 and '65*, New York: Charles Scribner's Sons, 1908.

[14] Lang, Theodore F., *Loyal West Virginia from 1861 to 1865*, Baltimore: The Deutch Publishing Co, 1895.

[15] Ibid.

[16] Humphreys.

[17] **Editor's note**: The Battle of Sailor's (also Sayler's) Creek was actually three engagements: the Battle of Hillsman's Farm, the Battle of Marshall's Crossroads (or Battle of Harper's Farm) and the Battle of Lockett's Farm (or Battle of Double Bridges). If readers wish to research these battles more, they will not find reference to a "Hott's Farm" battle. (A good overview can be found at Encyclopedia Virginia's Website, http://www.encyclopediavirginia.org/sailor_s_creek_battles_of, or descriptions of the Sailor's Creek battles (and the skirmishes preceding Sailor's Creek) can be found in a reference such as "The Road to Appomattox" section of *Battlefields of the Civil War: A Guide for Travelers*, Vol. 2, by Blair Howard.) The Hott farm is described by MG A.A. Humphreys (MG George G. Meade's chief of staff as well as commander of II Corps, who fought in the battles of Sailor's Creek) in his book, *The Virginia Campaign of '64 and '65*, as "three miles west of Deatonsville"; near where, early on the morning of April 6, 1865, "Cooke tried to cut off Confederate troops at the forks of the road near Hott's farm but was repelled by Anderson"; on top of a slope on the north side of Sailor's Creek; and near the forks where he arrived at about 4:30 p.m. April 6. Although Humphreys devoted these kinds of details to the Hott farm in his book, historians do not refer to it, but

the battle Humphreys describes can be inferred as the Battle of Marshall's Crossroads just by its description of being near a fork in the road. The Hott farm is also notated on Robert Knox Sneden's map, "The pursuit of the rebel army, April 6-8, 1865, and Battle of Sailor's Creek, Va." in the Library of Congress' Civil War maps collection, http://memory.loc.gov/cgi-bin/map_item.pl?data=/service/gmd/gmdvhs/gvhs/gvhs01/vhs00193.jp2&itemLink=D?gmd:278:./temp/~ammem_xuYC::&title=The+Pursuit+of+the+rebel+army,+April+6th-8th,+1865,+and+Battle+of+Sailor%26%2339;s+Creek,+Va..&style=cwmap&legend=. The three Sailor's Creek engagements occurred close together; per Howard's book, Hillsman House is about a mile from Marshall's Crossroads, which is about three miles from the Lockett farmhouse/Double Bridges site.

[18] Hendrickson, Robert, *The Road to Appomattox*, New York: John Wiley & Sons, Inc., 1998.

[19] Carrol, John M., *Custer in the Civil War: His Unfinished Memoirs*, San Rafael: Presidio Press, 1977.

[20] Humphreys.

[21] Lang.

[22] Davis.

[23] Lang.

[24] Davis.

[25] Ibid.

[26] Ibid.

[27] Ibid. (**Editor's note:** Although G.A. Custer was given the credit for the stolen battle flags here, for history's sake, readers may wish to note that Custer's brother, Brevet LTC Thomas Ward Custer, was awarded two Medals of Honor; the second was for bravery during the Battle of Sailor's Creek for capturing Confederate battle flags. T.W. Custer may be meant here, as Carl F. Day notes in *Tom Custer: Ride to Glory* (University of Oklahoma Press, 2002) that T.W. Custer returned the battle flags to G.A. Custer behind the lines. T.W. Custer was the first soldier to receive dual Medals of Honor, one of only four soldiers/sailors to receive the dual honor during the Civil War and one of just 19 in history. T.W. Custer perished with his brother at the Battle of the Little Bighorn.)

[28] Ibid.

[29] Ibid.

[30] Ibid.

[31] Ibid.

[32] Winik.

[33] Hendrickson.

# The Next Combat Vehicle – New Horizons

## by retired U.S. Marine Corps LTC Robert W. Lamont

Now that the U.S. Marine Corps has accepted a two-tier or spiral-development acquisition strategy for replacing its aging Amphibious Assault Vehicle, it is clear that fielding the Marine Personnel Carrier (MPC) will become the first phase of this effort. Termed the Amphibious Combat Vehicle (ACV 1.1), current off-the-shelf vehicles have demonstrated high reliability and better swim performance than initially thought. Discussions on the concept of employment for this vehicle envision no change in the employment principles of current operational units.

Why is this important to the Army? The refined capabilities of this platform compel us to explore both the challenges and opportunities this new vehicle brings to the ground combat element (GCE). This article's purpose is to develop likely capabilities these vehicles represent, discuss the resulting potential tactical implications and recommend planning considerations as the combat viability of this asset is fully explored.

## Likely capabilities

The ACV 1.1 program's general framework is to provide a vehicle with enhanced technology that adds combat capability to the operating forces at a reasonable cost. The Marine Requirements Oversight Council validated this requirement during Gate 2 reviews, which recommended a material solution of an advanced-generation wheeled armored personnel carrier. *The vehicle's mission is for a pair of them to carry a reinforced infantry squad with two days of supply at speeds compatible with the M1A1.* This will allow the GCE commander to form a task force with armor protection, firepower and maneuverability to conduct mechanized combined-arms operations. Such organizations have the inherent capabilities to exploit maneuver as a defeat mechanism while conducting missions ranging from deliberate attack to the economy-of-force trio of guard, screen and covering force.

The likely optics available to the platform allow a stabilized thermal-sight capability. The optics will feature various levels of magnification to enhance target location, target discrimination and engagement. This provides the vehicle commander the ability to guide dismounted infantry around enemy strength and, in so doing, set the terms of tactical dismounted combat that are favorable to the supported squad. In addition to optics and unaided vision, the vehicle tactical displays have the potential to orient crews to sectors of observation that offer the greatest likelihood of threat engagement. Tactical planners will have to consider how these enhanced situational-awareness tools impact squad-level areas of interest and influence as they refine employment concepts at each organizational level.

On-board armament can include both an Mk-19 (40mm) grenade launcher and a .50-cal machinegun, which can separate from each other. Having two of these vehicles at squad level will enhance tactical-employment options and simultaneous employment. The characteristics of these two weapons complement each other across a wide range of missions and rules of engagement (RoE). The Mk-19 provides a solid area-suppression capability, able to fire into local deadspace, and it can provide the volume of fire needed to break contact when squad disengagement is warranted.

Finally, the ammunition options available to the Mk-19 can allow technology growth as new threats mature. The .50-cal machinegun, on the other hand, can add long-range pinpoint fires to counter sniper threats and limit collateral damage in urban areas when such RoE dominate the landscape.

Crew and passenger survivability is enhanced with current armor technology and improved blast mitigation techniques in seat and compartment design. The use of an externally mounted weapon system has the potential to greatly reduce the vehicle's visual signature, exposing only the weapon system when occupying hull-down fighting positions. On-board smoke launchers, coupled with potential engine-exhaust smoke generation, provide for both visual- and thermal-screening systems to support squad disengagement when required.

## Potential tactical considerations

The road speed, cross-country performance and waterborne mobility of the vehicle enhance the GCE's ability to use maneuver as a defeat mechanism. The vehicle's road speed will allow the transfer of units at almost twice the current rate. This will allow CGE commanders to concentrate dispersed units at the point of their choosing to counter enemy moves or exploit hard-won success. While this vehicle's ability to keep pace with the M1A1 has yet to be validated, the potential of such an integrated combined-arms team can place all the components of combat power in a tight tactical package, able to dominate its assigned sector or zone of action.

Finally, the vehicle's waterborne-employment characteristics have yet to be mastered. Off-the-shelf prototypes have negotiated surface conditions exceeding initial design requirements. Using this capability to exploit river crossings, shore-to-shore movement or even ship-to-objective maneuver has yet to be discounted as a viable operational approach.

When contrasted with other combat-vehicle designs, the MPC's lighter

logistical footprint holds great promise within the expeditionary littoral environment. Fuel consumption is lower than its tracked vehicle counterpart, which will lower the bulk-fuel transfer requirements for the force. The observed reliability of off-the-shelf prototypes operating in the waterborne environment holds great promise to lower repair-part demands within the supply system because of less required corrective maintenance. A caveat: This observation needs to be validated for land operations over difficult terrain akin to the operating ranges of Twenty-nine Palms, CA.

While the addition of a vehicle with the preceding characteristics holds promise, many tactical details demand operating-force refinement. The idea of fielding a pair of vehicles to support a squad highlights the 2x3 paradox. In short, this effect results from a combat team designed to operate in pairs when vehicle-mounted and transition to a traditional triangle structure when dismounted. When mounted, the squad would exploit mounted-movement techniques such as traveling, traveling overwatch and overwatch. However, once dismounted, current approaches would have the vehicle act in a support-by-fire role as the squad moves at some distance from the mechanized elements in historical formations, including line, V, wedge or echelon. In closed terrain, such as an urban corridor or restricted trail, the support-by-fire approach falls short of the potential that an integrated squad team offers.

# Planning considerations

One approach to improving the mutual support between vehicles and dismounted units in closed terrain is using the employment characteristics of each system to dominate the confined avenue of approach. Vehicles operate using the "wingman" concept, with each providing covering fire and observation. They move in coordination with the dismounted squad, which assumes a V or diamond formation oriented on the vehicles. This allows a fire team to provide close protection to each vehicle. The remaining fire team can skirmish forward of the squad to provide early warning and direct subsequent

action, or it can position behind the vehicle pair with the weapon teams supporting the squad and act as a local reaction force.

This approach allows each component of the squad-vehicle team to exploit its unique employment characteristics at the tactical level on restrictive terrain. Given the increase in urbanization within the littoral battlespace, it is incumbent on leaders at all levels to develop team-employment approaches that integrate each member's ability to add to the fight.

One way to pull these concepts together would be to form a tactical-employment team using Marines from the School of Infantry and the Assault Amphibian Vehicle School – both located at Camp Pendleton, CA. Both these organizations have the requisite tactical expertise, ability of develop programs of instruction and operational experience to collaborate on moving this dialogue forward. Early engagement on this effort will allow for refined requirements and will validate employment techniques as we look to build integrated combat teams at the lowest level.

As the planned tactical employment of these vehicle-infantry teams matures, several combat-power integration approaches hold promise to maximize small units' ability to influence the battlefield. Earlier work-ups will foster the formation of key warfighting relationships and trust between the squad leader and vehicle commanders. By establishing habitual relationships, these war-winning relationships can be sustained and gain in credibility and strength. Cross-training and vehicle-orientation programs have the potential for each member of this squad-level team to gain a complete understanding of the strengths and weakness of each team component and how they contribute to combat potential within a maneuver-based paradigm.

Finally, while Army squad structure and tactical approach differ from those of the Marine Corps, understanding the two capability sets and how they complement each other ensures enhanced interoperability within the joint warfighting environment. Evolving cross-domain engagement

concepts compel each service to better understand how the totality of joint force capabilities is leveraged for mission accomplishment. The Center for Army Lessons-Learned (CALL) at Fort Leavenworth, KS, has detailed archives with combat experience on the employment of wheeled-vehicle infantry teams in recent counter-insurgency operations and can provide one point of departure for this interservice dialogue. The counterpart to CALL on the Marine Corps' side is the Marine Corps Lessons-Learned System, and it provides operational insights into the methodology taken by Marines in outlining their operational approach and requirements for this key mounted warfare vehicle. Maturing this capability will provide a landing force able to keep pace with other members of the mounted-warfare community and strengthen the warfighting options available to the joint force commander.

Preliminary steps being taken now will set the stage for successful inclusion of wheeled fighting vehicles into the squad level of the landing force. When properly integrated into a tight tactical structure, they can enhance the squads' combat potential with armor protection, increased firepower and unprecedented tactical speed in both open and closed terrain. The ability of these teams to combine unique mounted and dismounted combat characteristics has the potential to once again move forward the combat capability of our squad-level units, limited only by the imagination of our noncommissioned officers as tempered by their hard-won combat experience.

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Battalion, Twenty-nine Palms, CA. His service afloat includes executive officer, Marine Detachment, USS Constellation, and combat cargo officer, USS Cleveland. His military schooling includes the Basic School, Quantico, VA; Armor Officer Basic Course, Fort Knox, KY; and Armor Officer Advanced Course, Fort Knox. He holds a bachelor's of science degree in management and technology from the U.S. Naval Academy and a master's of science in operations research from Naval Postgraduate School. He is a silver-level member of the Order of St. George.

**Figure 1. MPC technology demonstrator. The MPC is the first phase of the U.S. Marine Corps' effort to replace its aging Amphibious Assault Vehicle with the ACV. The ACV's mission will be for a pair of them to be able to carry a reinforced infantry squad with two days of supply at speeds compatible with the M1A1.**

Figure 1. The fierce Comanche were a Plains tribe who were expert horsemen and warriors. The U.S. Army cavalry was tasked to combat them, the most lethal cavalry society in North America.

# Learning the Long-Distance Raid: Comanche, Rangers and 2ⁿᵈ U.S. Cavalry on the Texas Frontier

**by CPT Nathan A. Jennings**

The long-distance raid is a timeless tactical maneuver that cavalry formations have embraced since the dawn of mounted warfare. While the 20th and 21st centuries have seen naval and aerial components rise to share in deep strikes across combat theaters, in the 19th Century, the task remained the exclusive domain of armed horsemen. Often rising beyond the tactical and operational levels of war, this type of attack typically has combined the offensive fundamentals of surprise,

concentration, tempo and audacity, as described by Field Manual (FM) 3-20.971, *Reconnaissance and Cavalry Troop*, with power projection at distance and expanded political, military, social and economic impact. In the U.S. Army's storied history, this dynamic maneuver found particular relevance in the savage conflicts that raged across the vast expanses of the Texas Frontier.

This volatile landscape, encompassing the contested territories between the Red River and Rio Grande, presented a

challenging operational environment to indigenous peoples and external colonizers for hundreds of years. When the U.S. Army assumed wide-area security responsibility upon the annexation of Texas in 1845, it was just the most recent in a long procession of invaders to attempt to dominate the region. For 2ⁿᵈ U.S. Cavalry Regiment, since reflagged as 5th Cavalry, assignment to the Lone Star State in 1855 consequently demanded the adoption of long-distance raiding methodology to combat, and

eliminate, the most lethal cavalry society in North America: the fierce Comanche. To accomplish this evolution, occurring among terrain that made predictive interdiction problematic and demanded preventative attacks against enemy support areas, the American cavalrymen had to master a new kind of warfare.

## Operational environment

The former territories of Spanish *Tejas* had long been the premier mounted-warfare arena in North America when 2nd Cavalry deployed to pacify the Western Frontier. The introduction of horses to the lower Great Plains in the late 16th Century created a distinctive military environment dominated by Native raiding cultures and Spanish presidios focused on projecting or preventing military strikes against isolated population centers. This noncontiguous setting stood in marked contrast with the densely populated nation-states that developed along the Atlantic Coast and in central Mexico. While the more sophisticated and urbanized Anglo and Hispanic spheres idealized Napoleonic conflicts that stressed combined-arms strategy for linear battlefields, warfare on the periphery of Western civilization remained completely asymmetric and mobile across contested expanses that lacked resources and infrastructure.

The constellation of Amerindian tribes that populated the lower Plains established the enduring context for warfare in northern Texas with the adoption of equine mobility. Arriving as nomadic buffalo hunters who used superlative horsemanship to enhance their lethality with bows, lances and muskets, these warrior peoples rapidly mastered raiding operations. They fought as fleet mounted raiders who could subsist on the march, and their rapid movements across restrictive and expansive terrain allowed complete surprise. Driven by martial cultures that prized lethal prowess above all, the Plains tribes seasonally launched attacks that leveraged audacity to allow sudden concentration of forces against isolated population centers.

The powerful Comanche emerged as the most powerful of the Amerindian societies that fought across Texas. Comprised of a federation of affiliated tribes, this warlike people dominated the lower Great Plains while terrorizing both Indian competitors and Spanish colonizers alike. Manuel de Mier y Teran, a Mexican officer who inspected the Tejas frontier in 1828, defined them a cavalry-centric people who were "expert horsemen" and said that "their mode of attack is generally by arranging the lances in front, the guns in the center and boys in the rear — their horses at full speed, accompanied with the fury and yellings of demons." He then attested that they were "among the bravest and most warlike of the Mexican tribes."[1] These observations described a complex warrior society that had risen to prominence through expertise in mounted combat.

The success of the Comanche in long-distance, even strategic, raiding emanated in part from exceptional navigational abilities that allowed deep attacks far from their vulnerable villages. This capacity allowed a scope of operational reach unrivaled in North America — described in FM 3-0, *Operations*, as "the distance and duration across which a unit can successfully employ military capabilities." Henry Dodge, commander of the U.S. Regiment of Dragoons in 1833, reported the unique Comanche capacity for maneuver over distance when a war party traveled from Brady's Creek, Texas, to Monterey, Mexico. Using only natural landmarks and prior verbal instructions, the indigenous cavalrymen rode more than 350 miles through challenging terrain and debilitating climate conditions.[2]

The Spanish Empire was the first Euro-American society to seriously contest the Comanche for dominance of the Texas Frontier. Underestimating the need for rapid mobility north of the Rio Grande, the Tejas presidios maintained impractical troops of heavily armored and armed lancers to counter the mounted raiders. Nicolas de Lafora, a Spanish strategist who surveyed the frontier of New Spain in 1768, described the advantages that Amerindian horsemen held over his cavalry:

"Naturally, a man whose weight, with that of offensive and defensive arms, comes to 14 *arrobas*, and who is leading five or six horses for remounts, can never run as fast nor for so long a time as an Indian, whose arms and equipment increase his weight very little."[3] This contrast between fleet warbands and cumbersome conventional forces prevented the Spanish soldiers from conducting both patrol interdiction and long-distance raids with any semblance of surprise and high tempo.

This military inferiority resulted in dire consequences. The Comanche, and also the Apache, unleashed devastating raids against Spanish ecclesiastical, ranching and farming enterprises that existed outside the presidio walls. In 1819, the governor of Tejas, Antonio Martinez, consequently warned, "Rarely a day passes that this capital is not attacked by the Indians … Comanches or Lipanes, disorganized or united, are attacking our fortifications almost every night."

The official then predicted despondently the province would "be destroyed unwittingly by lack of inhabitants." By 1830, just 25 years before the 2nd Cavalry's arrival, French observer Jean Louis Berlandier concluded that the Comanche "war against the Creoles in Mexico spread terror among the settlers up and down the border." He likewise lamented, "Their raids then became almost continuous and the garrisons were always besieged."[4]

The Spanish, and then Mexican, inability to negotiate operational challenges in Tejas created a strategic opening for a new people to enter the fray: the Anglo-Americans. Under Mexico's supervision, and then against its will, thousands of U.S. citizens immigrated to southeast Texas and immediately engaged in violent territorial competition with the tribes. Beginning with *empresario* Stephen Austin's initial design to "keep 20 or 30 mounted men continually on the frontier as spies," the Anglo-Texan settlements rapidly emulated Comanche practices and developed their own model of frontier light horse that could challenge the mounted warriors in their own combat domain.[5]

These Texan frontiersmen, who acquired hybrid horse breeds

and innovative repeating firearms to counter Indian strengths while eschewing the Mexican predilection for armor and bureaucracy, became the early Texas Rangers. As the sword and shield of the Lone Star Republic from 1836 to 1845, they fought in dispersed companies that patrolled out of fort systems intended to separate hostile tribes from the expanding zones of Anglo settlement. Simultaneously, the more conventionally oriented Texas Cavalry briefly screened across south Texas in vaguely Napoleonic formations. The *Texan Democrat* subsequently appreciated that the versatile Texan horsemen could "ride like a Mexican, trail like an Indian, shoot like a Tennessean and fight like a devil."[6]

Despite these advances, interdiction against Native surprise attacks remained difficult as Anglo settlements expanded west and north during the era of the Texas Republic and first years of Texan-American statehood. In response, Lone Star mounted forces developed capacity for operational reach similar to the Comanche that allowed reciprocal strikes into remote tribal support areas on the high plains. The *Telegraph and Texas Register* explicitly endorsed in 1842 that "by making expeditions directly to the Indian villages and destroying them, and driving the Indian families to a distance, more would be effected toward affording protection to the frontier than by any other means."[7] While undeniably brutal and even genocidal, these tactics revealed the full mastery of offensive fundamentals that allowed offensive operations on a strategic scale.

## The U.S. Army and wide-area security

The annexation of Texas and victory in the Mexican War in 1848 compelled the United States to assume security responsibility for 18,000 miles of contested frontier. Similar to the former Texas Republic's predilection for networks of forward outposts, the U.S. Army chose to establish fort networks along the borders of the Anglo population belts. Yet unlike the earlier Texan use of blockhouses to merely project patrols, the federal troops employed fortified stations as the centerpiece of their predominantly static defense. From north to south,

the defensive system called the First Federal Line included the stations of Fort Worth near Dallas; Fort Graham on the upper Brazos River; Fort Gates to the south of Fort Graham; Fort Croghan to the northwest of Austin; Fort Martin Scott to the west of Austin; Fort Lincoln to the west of San Antonio; Forts Lincoln, Inage and Duncan to the southwest of San Antonio; Fort McIntosh and the Brownsville installation along the Rio Grande; and Corpus Christi on the coast.[8]

GEN George Brookes, commander of the Eighth Military District – which included Texas – intended the north-south and northwest-southeast axes of the system to separate the Anglo sphere from the Comanche empire. Despite the supportive concept, his 1,400 soldiers proved grossly inadequate to the task of screening against light-cavalry incursions. Of the 22 companies stationed in Texas, 16 were infantry, indicating the Army's reliance on passive and reactive measures. Even the mounted forces were not truly cavalry but rather dragoons (predecessor of the modern 2nd Cavalry Regiment), who used horses only for transport to fight as infantry. Like the Spanish presidios, the federal garrisons soon found themselves unable to anticipate and interdict fleet Amerindian raiders, much less pursue them into the vastness of the Great Plains.

Continued Amerindian raiding in Fall 1849, often in response to settler provocation, compelled Brookes to request state augmentation by experienced Texas Rangers. The American dragoons and infantrymen were incapable of applying needed tempo to achieve surprise against the asymmetric threat. A mounted expedition launched into Comanche territory in 1850, which was later described as "fruitless marching, scouting and searching operations," exemplified federal inability to launch strategic operations. Seeking to add both proactive patrolling and operational reach to his fighting capacity, Brooks accordingly requested "three mounted companies of Rangers, 78 strong in the aggregate" to take the field.[9]

With the federal attempt to pacify the Texas Frontier a controversial failure, the U.S. Army altered its strategy in

1851. The new commanding general, Persifor Smith, surveyed the existing forts and garrisons and elected to counter Native mobility with a more complex defense-in-depth. The new system, called the Second Federal Line, established a second chain of forts 150 miles to the west of the original network, essentially creating inner and outer perimeters around Central and East Texas. While infantry companies would garrison the outer chain to the west as forward outposts, mounted forces would respond from the inner line with coordinated interdiction.[10]

In addition to establishing the second line, the federal army increased its total strength in Texas to 3,600 troops across 48 companies, including a marked increase in mounted units. The professional garrison now comprised six companies of 2nd Dragoons, eight companies of 1st Mounted Rifles, four companies of 4th Artillery and a combined total of 32 companies from 1st, 5th, 7th and 8th infantry regiments. This combined-arms buildup stationed almost 25 percent of the U.S. Army in Texas at an annual cost of $6 million.[11] Despite the improvements, the heavy proportion of foot soldiers and the infantry-centric nature of the horse companies ensured continued immobility.

Coordination between outer and inner lines also proved disastrous. As one exasperated Texas statesman exclaimed, "How can they protect us against the Indians when the cavalry have not horses which can trot faster than active oxen, and the infantry dare not go out in any hostile manner for fear of being shot and scalped!"[12] Once again, with security unraveling, the army enlisted Texas Rangers to bridge the security gap.

## 2nd Cavalry arrives

In 1855, as the Texas Frontier remained unstable despite increased Army presence, the War Department dispatched the newly formed 2nd U.S. Cavalry Regiment to add mobile capacity to the beleaguered Texas garrison. Designed as an elite mounted corps by Secretary of War Jefferson Davis, the 750-man regiment boasted the finest officers and most experienced

noncommissioned officers available. The 10 companies of the regiment arrived in Texas with breech-loading carbines, Colt revolvers and sabers, making them the best-armed troops in the state.

The 2nd Cavalry spread out by company across Texas to support the existing garrison structure that occupied a network of forts ranging from the Red River to Rio Grande. With a higher esprit de corps than their dragoon counterparts, and a more aggressive intent to close with the Comanche enemy on horseback as true cavalry, the troopers spent the next few years learning the lessons of counter-guerrilla tactics in the harsh academy of frontier combat. These advances centered on improvements in intelligence collection, active reconnaissance and security forward of the federal line, and timely



**Figure 2. Comanche chief Quanah Parker, circa 1890.**

interdiction. Despite tactical success in 14 minor engagements against Indian war parties, the strategic source of Comanche power remained undiminished, and the raids against the encroaching Anglo settlements continued unabated.

Fed up with federal inability to provide reliable security, the Texas governor assumed his own initiative to solve the problem with strategic raids against the Comanche homeland. In Spring 1858, he directed an exceptionally large force of Texas Rangers, led by famed CPT John Salmon Ford, to "follow any and all trails of hostile or suspected hostile Indians you may discover, and if possible, overtake and chastise them."[13] Populated by frontier veterans and guided by allied Indian scouts, the force proceeded to move north from Austin, establish a forward base north of Dallas and launch an audacious attack north of the Red River.

The resulting campaign provided a direct precedent for long-distance raiding for 2nd Cavalry to emulate. Despite the fatal risks associated with deep force projection – which included dying of thirst, losing horse mobility and thus dying from privation, and the perennial specter of ritual torture by Indians if captured – the Rangers maintained a bold movement tempo for several days to achieve surprise against a large Comanche village on the upper Red River. They then concentrated against the Natives with superior firepower and a rapid frontal attack that destroyed any possible resistance. Called the Battle of Antelope Hills, the attack succeeded in annihilating the source of that tribe's power, which unfortunately included the indiscriminate slaughter of many noncombatants.

The Texas Rangers' success – and their use of operational reach, speed and navigation to emulate Comanche raiding operations – did not go unnoticed by 2nd Cavalry officers. Like the Texas governor, federal leaders realized they needed to neutralize the strategic source of the Comanche combat power to achieve decisive results. With the Washington, D.C., and the military district commander in agreement, officials subsequently directed a particularly aggressive troop commander

named Earl Van Dorn to assume command of troops A, F, H and K, along with detachments of mounted infantry and indigenous auxiliaries, and then launch an audacious raid against the Comanche heartland. Van Dorn, who proved to be a darkly inspired choice and would go on to Civil War fame, quickly organized the force of 300 men and deployed Sept. 15, 1858.

The federal task force rode north, crossed into Oklahoma and established a forward-operating base called Camp Radziminski. After Delaware scouts located a large Comanche village 90 miles to the east, Van Dorn immediately moved to attack while he maintained the advantage of surprise. Additional intelligence gained en route confirmed that the famous chief called Buffalo Hump, leader of an aggressive raiding tribe, commanded the enemy. The soldiers rode hard through the undulating prairie for about 38 hours, at last halting in an attack position to stage for a dawn assault.

Thus far, the cavalrymen had relied upon actionable intelligence to inform a rapid movement tempo designed to achieve surprise. Now, with the task force in position, Van Dorn would use his advantage in firepower and initiative to concentrate against the unprepared defenders. The decisive point of the operation consisted of a massed cavalry charge against the first row of lodges, thereby spreading panic and chaos throughout the rest of the village. The attack, later called the Battle of Rush Springs and criticized as a wanton massacre, unfolded exactly as intended. The task force used the predawn darkness to conceal its approach with information gained by scouts, arrayed itself in four assault columns and, when the village was finally sighted, "deploy[ed] in company front and charge[d]."[14] The culminating assault, which included transition fire between carbines and revolvers, achieved its purpose of preventing the warriors from organizing a coherent defense.

While condemnatory by both 19th and 21st Century rules of war, the attack resulted in more than 80 warriors killed; uncounted women, children and elderly killed; and at least 100 Natives wounded. The tribe also suffered 120 lodges burned and more than 300

horses confiscated. The American attackers lost four killed and 10 wounded. By cold military calculation, the strategic raid had used an unprecedented scope of operational reach – at least in terms of U.S. Army development to that date – to locate, close with and destroy a source of Comanche power. GEN David Twiggs, commander of the Texas garrison, called the operation "a victory more decisive and complete than any recoded in the history of our Indian warfare."[15]

In April 1859, Van Dorn elected to build on his bloody success with another deep attack into Comanche territory intended to yield strategic impact. As before, he relied upon a combination of audacious maneuver and actionable intelligence to allow tactical surprise. Assembling a more mobile force comprised of 2nd Cavalry troops A, B, C, F, G, H and K, along with Native scouts, the force again staged out of Camp Radziminski and proceeded to conduct a reconnaissance-in-force north into unsettled Kansas. The cavalrymen traveled light, without tents and with minimal rations, demonstrating further emulation of Comanche techniques. On May 10, scouts located a small village hidden in a growth of timber.

Instead of ordering an immediate frontal attack by mounted companies, Van Dorn assessed the restrictive terrain and proceeded to dismount two troops for infantry assault while cordoning the target area with the remaining four mounted troops. Like the previous expedition, the subsequent attack against the unprepared village proved successful. The Indians were driven from their village and into a ravine, where they, according to the mission report, "fought without asking or giving quarter until there was not one left to bend a bow."[16]

The soldiers killed 49 warriors and an unknown quantity of noncombatants, and captured 36 prisoners. The Americans lost two dead and four wounded. The learning process complete, the Battle of Crooked Creek proved that 2nd Cavalry had mastered the execution of the long-distance raid.

## Conclusion
The twin raids at Rush Springs and

Crooked Creek, however atrocious in terms of the human cost, represented the culmination of 2nd U.S. Cavalry Regiment's learning process in the brutal methodology of warfare on the Texas Frontier. By appreciating the doctrinal value of surprise, they learned to "strike the enemy at a time and place or in a manner that he least expects." By using approach marches designed to allow concentration of combat power, they were able to "mass available forces" against unprepared targets. By pursuing a high movement rate, they maximized tempo to allow effective operational reach far from their home base. And finally, by embracing the intangible quality of audacity, Van Dorn and his men projected combat power far beyond previously accepted risk tolerances to achieve strategic impact.

The application of these fundamentals emerged through an arduous process of organizational learning. While the Spanish had utterly failed to adapt to warfare on the periphery, and the U.S. Army initially fared only marginally better, operational advances by partisan Texas Rangers provided a bloody model of success. This precedent, essentially based on emulation of Comanche practices of long-range force projection, was then adopted by 2nd Cavalry and applied with strategic impact. Rising beyond tactical interdiction and operational posturing, the theater-wide strikes achieved an expanded scope of military and social destruction. Robert E. Lee, who three times commanded the regiment in Texas, reported of his formation's maneuvers against the Comanche that "the energy and determination evinced in bringing them to battle merits high commendation."[17] This mastery of long-distance raiding, indicative of a modernizing American mounted arm, would serve the U.S. Cavalry well across a diversity of conflicts and future wars.

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# The Bastogne Fusion Process:
## a Commander-Centric Approach to Planning and Decision-Making

**by LTC Scott Sentell and LTC Philip Kiniery**

*"Commanders are the most important participants in the operations process. While staffs perform essential functions that amplify the effectiveness of operations, commanders drive the operations process through understanding, visualizing, describing, directing, leading and assessing operations."* – Army Doctrinal Reference Publication 5-0, **The Operations Process,** May 2012

In Spring 2012, as 1st Brigade (Bastogne), 101st Airborne Division (Air Assault), prepared to conduct collective training before deploying to Afghanistan, we determined the brigade staff needed to enhance our planning process to help gain a deeper understanding of the environment in a way that supported the brigade commander's personality and way of thinking. The brigade commander was concerned that traditional methods and processes did not account for the Afghan environment's complexity. How would the staff decide when and where to apply resources and effort?

In an attempt to contribute to the brigade commander's understanding of the environment, the brigade staff developed a commander-centric approach we called the Bastogne Fusion Process (BFP). The brigade applied this process while deployed to Afghanistan from November 2012 until August 2013 as a security-force assistance brigade.

This article's purpose is ultimately to show how the brigade staff accounted for the commander's personality in tailoring a planning and problem-solving process. In Afghanistan, where complexity and friction thrive at
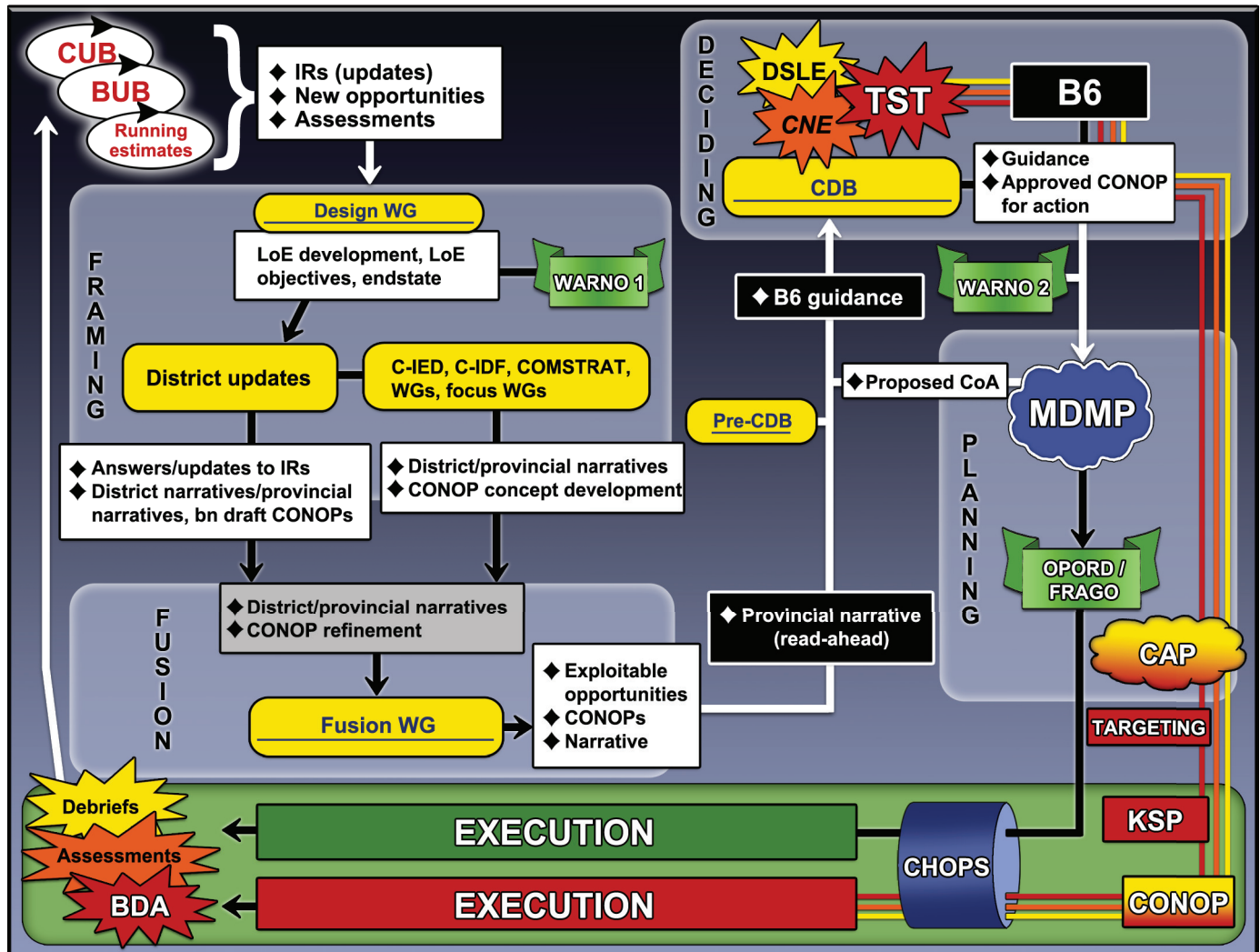


**Figure 1. The BFP illustrated.**

the crossroads of human and physical terrain, the staff validated the BFP and found it to be a sound approach to commander-centric planning and problem-solving built on a deep and accurate shared understanding of the operational environment.

## Decision-making methods, processes

Although the Army operations process provides a template for planning and problem-solving with the Army design methodology and the military decision-making process (MDMP), a staff should tailor these processes with the commander's personality in mind to maximize mission command and his/her ability to balance the art of command with the science of control. The correct inputs and outputs, synchronized within a process, should align with how a commander internalizes understanding and how his or her visualization of the environment reinforces his or her decision-making methodology. The process should also deepen the shared understanding of the operational environment (OE) across higher and subordinate commands to ensure the unit's effort and resources are not applied against poorly defined problems.

BFP's overarching goal is to provide feasible solutions to complex, ill-structured problems tailored to the commander's thought process. Throughout the development and execution of this process, the brigade staff determined that BFP exhibits several characteristics:

- It is adaptable to fit the commander's thought process and his or her decision-making horizons.

- In allocation of time, 75 percent is dedicated to preparation and 25 percent is dedicated to planning and execution.

- BFP accommodates short- and long-term problem sets.

- BFP is an iterative process that ensures actions are tied directly to a deep understanding of the environment.

- BFP focuses on uncovering opportunities.[1]

- It avoids offering simple answers to complex problems; simple approaches are easy to understand, but often ineffective in execution.

- BFP is resilient to friction and turbulence as friendly actions create new circumstances (intended and unintended) in the environment.

- BFP uses comprehensive inputs from subordinate commanders and staffs to frame the problem set.

- BFP changes conceptual thinking into executable orders; it finds the critical transition point between conceptual and detailed planning.

- Inputs are designed to be intuitive, easy to use and clearly understood down to the platoon.

The BFP does not seek to replace design or the MDMP. Instead, it ensures that mission analysis is thorough and clarifies the problem set. Throughout many iterations of this process during the brigade's Mission-Command Training Program (MCTP) – the brigade warfighter exercise, Joint Readiness Training Center (JRTC) rotation and deployment to Afghanistan – the staff continued to refine the BFP to improve the brigade's understanding of the environment and its ability to describe it in a manner that resonated with the both the staff and the commander. This process also had to transform a conceptual plan into detailed executable orders for subordinate units and ensure that the action was being assessed appropriately to restart or continue the process with enough data points.

## Defining inputs

The information that goes into any process – the inputs – must be carefully considered. One consideration used to determine relevant inputs was to ensure we were not creating redundant reporting requirements for subordinate commands and staffs. The brigade commander's battle rhythm was used to identify those venues and existing reporting requirements as well as higher's battle rhythm to avoid overloading a subordinate staff officer with redundant reports. (It is no secret that a brigade staff can quickly overwhelm a battalion/squadron staff with reporting requirements that do not serve as valid inputs to a relevant process.)

Once the standard reporting requirements were outlined, the staff identified efficiencies within those reports that would contribute to the brigade commander's visualization of the environment. The battle rhythm consisted of Commander Update Briefs (CUBs), Battle Update Briefs (BUBs), warfighting function (WfF) working groups (WGs), staff updates and Commander Assessment Briefs (CABs) – all designed to serve as inputs to the BFP.

Finding the correct inputs was a continuously evolving process that assessed whether or not the information requested actually benefited the BFP. Getting rid of a report or staff estimate that did not make sense was occasionally a significant emotional event for staff officers who had adopted the processes from the previous staff or from a previous job. We determined that inputs and venues must be synchronized and sustainable. They should also contribute and be formatted to the brigade commander's visualization to gain efficiency in staff work.

Also, understanding the impact a commander has on the OE while conducting deliberate/dynamic engagements and battlefield circulation is critical for the staff. Assembling the brigade staff with the commander following battlefield circulation is a technique the staff developed in Afghanistan. This meeting ensured staff situational awareness and prevented the development of divergent views of the OE. Initially, this meeting involved all brigade staff officers. However, with increasing requirements, only key or select staff officers were required for future meetings. In this case, the commander used his weekly staff update to provide insights to the remainder of the staff.

## Framing problems

One of the primary characteristics that made the BFP successful is the integrated staff approach that fostered an environment where all participants were encouraged to challenge the status quo and to question assumptions. The critical phase in the BFP, framing the problem, was the forum for such collaboration.

| Purpose: understand OE <br> Frequency: first day of cycle <br> Duration: as needed <br> Location: brigade conference room <br> Chair: executive officer <br> Lead: S-3 <br> Attendees: S-1, S-2, S-3, S-4, S-6, FSO, target-ing officer, S-7, S-9, SJA, MISO, PAO, MEDO, EW, PMO, BAE, engineer, ALO, chaplain, civil affairs, Safety, S-3 Plans, EOD, ANSF/SFAAT representative, DoS | **Proposed agenda** <br> Roll call    (S-3) <br> Intel update    (S-2) <br> Operations update    (S-3) <br> Commander's intent    (S-3) <br> WfF updates    (Various) <br> Framing discussion    (All) |
|---|---|
| **Inputs:** <br> -Current OE assessment (S-2) <br> -SIGACTS from previous cycle (S-3) <br> -OPSUM from previous cycle (S-3) <br> -CAB/CUB/BUB and commander feedback (staff) <br> -Current staff estimates (WfF) <br> -Current campaign plan (S-3) <br> -Current HNSF assessment (SFAAT commander) <br> -Current PMESII-PT assessment (S-3) <br> -IIA assessment (S-7) <br> -Media activity (PAO) <br> -Atmospherics (S-9) | **Outputs:** <br> -Refined IRs to battalions <br> -Proposed problem set <br> -Any recommended changes to commander's intent <br> -WARNO 1 |

**Figure 2. The design WG (framing the problem).**

Initially, this series of meetings with the entire brigade staff was frustrating and often did not produce the outputs desired. When trying to define a complex problem set, it proved to be difficult to identify a start point. As a result of trial and error, the staff determined that identifying the right contributors, proper framework and an open mindset go a long way in making this key step successful.

In practice, the design WG is a room populated by whiteboards, with representatives from each staff section and interagency representatives. The rank of the participants was not considered as a prerequisite for contributing. Instead, new and unconventional approaches were welcome in a generally doctrine-laced environment of post-captain's career course and Intermediate Level Education graduates. For example, we noted that enlisted intelligence analysts had a deep understanding of a specific topic, ethnic group or geographic location. Their perspectives were essential in developing a complete picture of the OE. In many cases, the non-combat-arms officer, chaplains and lawyers gave some of the best insights because they were able to widen the aperture and look at the OE through a different lens.

Meetings were also framed around a range of variables depending on the OE. For example, the operational variables – political, military, economic, social, information, infrastructure, physical environment and time (PMESII-PT) – worked to effectively describe an Afghan province or district. Strengths, weaknesses, opportunities and threats (SWOT) analysis was also used when attempting to describe a specific element such as the Afghan National Army (ANA) or a Taliban subcommander in the area of operation.

The method used to capture this critical discussion is not paramount. Instead, a staff should use the framework that will resonate the most with how your commander thinks and how he/she sees his/her environment. For us, as conversations began to answer or describe the chosen variables, it became easier to identify the problem set and recognize opportunities that clearly involved multiple variables. Through this process, the staff modified the endstate initially drafted by the brigade commander.

It is important that the staff not approach this process strictly within their WfF, but more like a student who is asked to read a novel and then give his/her opinion and raw ideas – it should be an informal discussion where new ideas are accepted instead of in a canned briefing format. This approach enabled each staff member to draw from his/her background, education and experiences rather than focusing narrowly within his/her WfF. The staff also understood that challenging assumptions and thoughts was highly encouraged because it forced them to come to the meeting prepared

to defend their positions.

These meetings were not one the commander would normally attend. On occasion, the commander would sit in the back of the room to gain insight on discussions and thought processes, but mostly he allowed the staff to continue to muddle through this phase and formally present the proposed problem set for approval.

Subordinate units played an important role in this phase as well. During the early stages of the framing phase, the brigade staff developed information requirements (IRs) based on gaps in knowledge of the environment. The staff would categorize these IRs along the same variables used to frame the problem (i.e., PMESII-PT or SWOT). Those IRs were immediately distributed to the battalions, and the brigade staff relied heavily on their feedback to help achieve a better understanding of the environment. Bringing in this bottom-up refinement early in the BFP was essential, as it helped validate thought processes and built credibility into the staff's recommendations to the commander.

# Fusion

The next phase of the BFP is the process of "fusing" all the data garnered from the previous framing phase. The inputs into this fusion phase included subordinate feedback to the IRs, a proposed problem set, recommended changes to the commander's endstate, proposed lines of effort (LoEs) and draft opportunities. Multiple opportunities were identified within each LoE. These opportunities provided operational orientation for the brigade's efforts. It is through those opportunities for success that the brigade staff would apply the traditional MDMP resulting in a detailed order given to the subordinate units for action.

In the fusion phase, the staff refined the identified opportunities based on the staff's understanding gained during the framing phase. In preparation for the commander's review, the staff defined each opportunity in a written description of the current state of the environment that required this action and the action being proposed to respond to that state. Also defined was the risk associated with the opportunity if not executed or if executed ineffectively, as well as identifying who

owns "the fight" at each level. This helped prioritize resources and establish unity of effort.

It is important to note that a full course-of-action (CoA) brief was not the target, but a one-slide description that explained the opportunity was. Figure 3 outlines this template. To prevent wasted effort, the staff would not conduct any more planning until the opportunity was approved and prioritized during the Commander's Decision Brief (CDB).

The output of this phase was a written brigade narrative – not a PowerPoint presentation – that would be given to the brigade commander for review before seeking a decision from him. The combined brigade narrative included a narrative from each of the battalion commanders and one from the brigade staff. To prevent the brigade staff from regurgitating what the battalion commanders were saying in their narratives, a proposed problem set, defined LoEs and opportunities that met the criteria of cross-cutting multiple LoEs were presented in the narrative.

The embedded battalion commanders' narrative was the forum for

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| **Purpose:** Present CoAs and attain planning guidance for identified emerging opportunities<br>**Frequency:** Last week of Bastogne fusion cycle<br>**Duration:** 60 minutes<br>**Location:** brigade conference room<br>**Chair:** B6<br>**Lead:** executive officer<br>**Attendees:** battalion commanders, SFAT TL, S-1, S-2, S-3, S-4, S-6, FSO, targeting officer, S-7, S-9, SJA, MISO, PAO, MEDO, EW, PMO, BAE, engineers, ALO, chaplain, Safety, S-3 Plans, EOD, ADS | **Proposed agenda**<br>Roll call　　　　　　　　(executive officer)<br>Mission (revisit)　　　　　(S-3)<br>Commander's intent　　　(S-3)<br>　(revisit)<br>Problem-set statement　　(S-3)<br>LoE review　　　　　　　(S-35)<br>Opportunity discussion　　(S-35)<br>For decision　　　　　　　(bde commander)<br>For guidance　　　　　　　(bde commander) |
| **Inputs:**<br>-B6 narrative<br>-CONOPs for approval<br>-CONOPs for guidance | **Outputs:**<br>-Proposed changes to opportunities<br>-Planning guidance — prioritization<br>-FRAGO |

**Figure 3. Opportunity presentation template.**

subordinate commanders to articulate to the brigade the current state of their OE and any emerging opportunities and exploitable networks (friendly, enemy or mutually supporting). It was through this narrative format that the brigade commander could best internalize the information. This narrative would also act as the read-ahead before our CDB in the following phase.

## Deciding

Pinning down the commander in a combat environment for a decision is nearly impossible when he or she has not been given ample time to think. Creating a read-ahead narrative – the combined brigade narrative – and a desk-side huddle with the deputy commander, executive officer, S-3, S-2 and targeting officer prior to the formal decision brief was critical. This quick meeting helped the commander focus on what decisions were being asked of him and when the decision was needed.

The desk-side huddle also provided insight on where the brigade commander was leaning concerning prioritization and approval of the opportunities, which allowed the brigade staff to begin the initial steps of MDMP. It also provided insight on what opportunities were misaligned with the brigade commander's read of the environment. This normally led to analysis on more opportunities not initially identified.

The brigade CDB was the final step before moving into the MDMP with each opportunity. This brief involved all battalion commanders and brigade staff officers. This forum was not for the weak of heart; the staff would defend their product to the brigade and battalion commanders so each fully understood the background and operational approach; transparency between brigade and battalion staffs was essential, and argumentative discourse was encouraged. The discourse that derived from this forum helped refine the brigade commander's planning

guidance and approval of our operational approach.

At the end of this meeting, the brigade staff would have prioritization on which opportunities to continue planning on and any adjustments to the problem set, LoEs or commander's endstate.

## Planning, execution

Once the commander decided where to prioritize his efforts and apply resources, the brigade staff used the remaining 25 percent of time to conduct the more traditional MDMP steps. Mission analysis focused on the tangible aspects of resourcing the actions inside the defined OE – facts, assumptions, tasks and limitations – instead of trying to understand stakeholders, networks and the human terrain. Most of the time was spent on CoA development.

The benefit of the BFP up to this point was that the battalions were read in on the opportunities and, in most cases,

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| **Opportunity:** Brief definition of the opportunity that outlines the current situation, illustrates how the opportunity will achieve the commander's endstate and contributes to the entire brigade OE. |
| **IRs:** List of all IRs associated with the opportunity. |
| **Risk:**<br>1. List of potential risks associated with this opportunity if executed or not executed.<br>2. Risk 2.<br>3. Risk 3.<br>4. Risk 4. |
| **Brigade fights:** Identify brigade-level decisions and influence. |
| **Battalion fights:** Identify battalion-level decisions and influence. |
| **SFAAT fights:** Identify battalion-level decisions and influence. |

**Figure 4. CDB template.**

| | |
|---|---|
| **Purpose:** AWG analyzes operations over the last fusion cycle to determine whether the tasks and desired effects outlined in priorities development were achieved (MoP). It further determines whether desired effects had the intended impact on the BCT's opportunities. AWG acts as the primary input to the operations and development WG, where the BCT analyzes each LoE and their associated opportunities to determine their continued validity.<br>**Frequency:** Monday, 2nd and 4th week of 4-week cycle<br>**Duration:** 1.5 hours<br>**Location:** brigade conference room<br>**Chair:** B66<br><br>**Lead:** ADS<br>**Attendees:** brigade staff primaries, COMSDIR, FSO, engineer, ANA brigade SFAAT S-3s, OCC-P S-3s, ABP Z-1 S-3, AOSC S-3, AOSC S-2, PRT, AOB | **Proposed agenda**<br>Bastogne fusion status (5 min)　　(S-35)<br>Review commander's intent　　　　(S-35)<br>　　(5 min)<br>Definitions (5 min)　　　　　　　(S-7)<br>Combined priorities overview　　　(All)<br>　　(5 min)<br>Assessments review (40 min)　　　(All)<br>Questions and closing comments (S-35)<br>　　(5 min) |
| **Inputs:**<br>-INTSUMs/GRINTSUMs<br>-OPSUMs<br>-B6 vision paper<br>-MoEs<br>-MoPs | **Outputs:**<br>-Recommended adjustments to current priorities<br>-Recommended new priorities |

**Figure 5. Assessment WG.**

developed them in conjunction with the brigade staff. This allowed for several efficiencies, including parallel planning and the brigade staff's ability to immediately request the enablers needed from the regional command headquarters.

Another benefit that inherently emerged from this process was that everyone on the brigade staff understood the intellectual underpinnings of the operation being planned and how it tied to the brigade's campaign plan. The output of this phase was an executable order (fragmentary order (FRAGO), operations order (OPORD) or concept-of-the-operation (CONOP) order) directing subordinate units to take the necessary actions to achieve the commander's endstate.

Assessing the effects of the operation always created friction points among the staffs based on the read they were getting from the available data. We held assessment WGs (AWGs) (Figure 5) that involved every player in each current or completed operation. The outputs of this forum fed directly back into the BFP and the reframing process. It was in this meeting where planners discussed the relevance of the data being measured with an eye to ensuring it contributed to the planning process. Generally this heated conversation led to a better understanding for everyone as the environment continued to change based on our actions.

Success in the assessment phase is defined by the brigade commander's ability to articulate refined guidance to his or her subordinate commanders. Also, establishing the correct battle rhythm for the assessment phase is important to remain relevant in the current fight. However, the staff quickly determined that maintaining the same frequency of the meeting was less important than ensuring that assessment measures were correct. As time passed, the environment changed and became more complex as the actors in the system reacted to the brigade's actions. Changing a meeting time and the inputs from the staff and subordinate units are extremely disruptive, but it ensures relevant meetings that focus on the changes that require updated assessment measures. Without adapting to the environment, meetings lose their substance and no one, especially commanders, are gaining anything from the information being presented because it is no longer relevant to the environment.

The brigade staff designed the BFP to match the brigade commander's personality and benefits from an inherent ability to ensure that everyone got all the information and data available. This was made possible because of the physical structure of the fusion cell, also doctrinally called Plans. Only two areas existed in the brigade headquarters: the Joint Operations Center for current operations and the fusion cell for planning. Walls were literally knocked down and individual offices

removed, preventing a stovepiped organization among the staff and creating a bay office where every WfF section worked.

Another technique used to ensure that information was disseminated as widely as possible was resourcing each battlespace integrator (battalion), combat advisory group (company) and security-force advise-and-assist team (SFAAT) with a videoteleconference capability, allowing anyone to join any meeting to provide their direct input.

## Reframing and frequency

At any point during the BFP, conditions on the ground were likely to change, creating unforeseen circumstances, new opportunities or a renewed understanding of the environment. BFP's iterative design allowed the staff to reframe if required. If there were no major changes in the environment, the staff would conduct the design WG on a recurring basis to determine if the key inputs – IR feedback, CUBs, BUBs, CABs – had revealed gaps in our understanding that require more analysis.

Whether the output of the design WG was to frame an initial problem, reframe based on changes in the environment or validate existing opportunities, determining the BFP's frequency is important but not paramount. The BFP may be conducted on a two-, three- or even four-week cycle or planning horizon, with traditional "targeting meetings" occurring multiple times within each BFP cycle. Essentially, there is no defined cycle for the BFP. The environment and the brigade commander's personality determine the process's necessary tempo.

## Conclusion

Throughout the BFP's development and implementation, the brigade staff found that many steps in the process were simply extensions of the way our commander viewed planning and problem-solving. Challenging the status quo, questioning shallow assumptions and adjusting the plan throughout execution were all characteristics the staff had to adopt. In doing so, the staff gained a much deeper understanding of the environment and was able to develop more detailed solutions

to complex problems. When finally presented to the commander as recommendations for decision, the gaps in understanding were narrower, confidence in the process was higher and the desire for action was greater.

The Bastogne Brigade's 2012-2013 deployment to Afghanistan provided a unique opportunity to validate the BFP. The brigade's security-force advise-and-assist mission created distinctive and nontraditional problem sets where a shared **and** accurate understanding of the environment was essential to properly apply limited resources in a geographically complex region. The BFP became a collaborative and iterative approach that significantly altered the way the staff viewed planning and problem-solving. The ability to become comfortable with being uncomfortable was essential in providing the commander the information he desired in

a format that supported his thought processes.

We don't expect that anyone will completely adopt the BFP as their method. Instead, it is our desire that this article has emphasized the importance of finding a process your commander is comfortable with, addresses the complexities of the modern environment and improves the ability to create a shared understanding. In the end, it is the active dialogue between commanders – company, battalion and brigade – and the staffs that highlight the BFP's benefits.

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**Figure 6. The Bastogne Brigade's 2012-2013 deployment to Afghanistan provided an opportunity to validate the BFP.**

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LTC Phil Kiniery is the BCT executive officer, observer/controller/trainer (O/C/T), Operations Group, JRTC, Fort Polk, LA. His past duty assignments include brigade S-3 O/C/T, Operations Group, JRTC, Fort Polk; brigade S-3, 1st Brigade (Bastogne), 101st Airborne Division (Air Assault), Fort Campbell, KY/Afghanistan; battalion executive officer, 2nd Battalion, 327th Infantry, 1st Brigade, 101st Airborne Division (Air Assault), Fort Campbell; battalion S-3, 2nd Battalion, 327th Infantry, 1st Brigade, 101st Airborne Division (Air Assault), Fort Campbell / Afghanistan; and brigade planner, 1st Brigade, 101st Airborne Division (Air Assault), Afghanistan. LTC Kiniery attended CGSC. He holds a bachelor's of art degree from the Military College of South Carolina (The Citadel) and a master's of art degree from Kansas State University in adult and continuing education.

# Notes

1 "Opportunities" within the BFP are defined as those areas where additional focus and effort can have a significant positive impact toward achieving the desired endstate.

## Acronym Quick-Scan

**ABP** – Afghan Border Police
**ADS** – Afghan Development Station
**ALO** – Air Force liaison officer
**ANA –** Afghan National Army
**ANSF –** Afghan National Security Forces
**AOB** – advanced operating base
**AOSC** – area of operations supporting commander
**AWG –** assessment working group

**BAE** – brigade aviation element
**BCT –** brigade combat team
**BDA** – battle-damage assessment
**BFP** – Bastogne Fusion Process
**BUB** – Battle Update Brief

**CAB** – Commander Assessment Brief
**CAP** – crisis action planning
**CDB –** Commander's Decision Brief
**CGSC –** Command and General Staff College
**CHOPS –** chief of operations
**C-IDF –** counter-indirect fire
**C-IED –** counter-improvised explosive device
**CNE –** computer-network exploitation
**COMSDIR –** communications director
**COMSTRAT –** communications strategy
**CoA –** course of action
**CONOP –** concept of the operation
**CUB** – Commander Update Brief

**DoS –** Department of State
**DSLE –** dynamic senior-leader engagement

**EOD** – explosive ordnance disposal
**EW –** electronic warfare
**FRAGO –** fragmentary order
**FSO –** fire-support officer
**GRINTSUM –** graphical intelligence summary

**HNSF –** host-nation security forces
**IIA –** inform-and-influence activities
**INTSUM –** intelligence summary
**IR –** information requirement
**JRTC –** Joint Readiness Training Center
**KSP** – kinetic strike package
**LoE –** lines of effort
**MCTP –** Mission-Command Training Program
**MDMP** – military decision-making process
**MEDO** – medical officer
**MISO –** military information-support operations (formerly psychological operations)
**MoE** – measure of effectiveness
**MoP** – measure of performance
**OCC-P –** Operational Coordination Center-Province
**O/C/T –** observer/controller/trainer
**OE –** operational environment
**OPORD** – operations order
**OPSUM –** operations summary
**PAO –** public-affairs officer
**PMO –** Provost Marshal Office
**PMESII-PT** – political, military, economic, social, information, infrastructure, physical environment and time
**PRT** – provincial reconstruction team
**SFAAT –** security-force advise-and-assist team
**SFAT TL –** security-force assistance team team leader
**SIGACTS –** significant activities
**SJA –** Staff Judge Advocate
**SWOT** – strengths, weaknesses, opportunities and threats
**TST –** time-sensitive target
**WARNO –** warning order
**WfF –** warfighting function
**WG –** working group
**Z1** – Zone 1

# TACTICAL DECISION EXERCISE

## Author's Solution to Tactical Vignette 14-01: "Battle at Narrow Bridge"

**by LTC Scott O'Neal**

*"Solutions to tactical problems are a collective effort. Success results from the commander's plan and the ability of subordinates to execute it. Commanders must have full confidence in their subordinates' mastery of the art and science of tactics and in their ability to execute the chosen solution." – Army Doctrinal Reference Publication (ADRP) 3-90*

At its core, "Battle at Narrow Bridge" creates a simple dilemma for the platoon leader: continue the directed scheme of maneuver or develop a new course of action (CoA). Using an unclear commander's intent, vague battalion mission statement and an increasingly confusing, and perhaps deteriorating, tactical situation, the scenario places the platoon leader in a position where he must make a decision without guidance or direction from the battalion. Or does he? Hence, the tactical debate ensues.

This article offers a methodology for determining our platoon leader's options, along with a proposed solution. To do this, we will review the specified and implied guidance, the enemy situation, and outline the pros and cons of potential CoAs. Ideally, this affords readers a technique for solving this and other tactical problems.

## Our specified guidance

*"Tactical proficiency is not defined by*



WHAT'S YOUR NEXT MOVE?



The Plain

8 km

OBJ CHAPULTEC

PL Spur

Western Narrow Pass

96

Missionary Ridge

Narrow Pass

23

67

Narrow Bridge

N
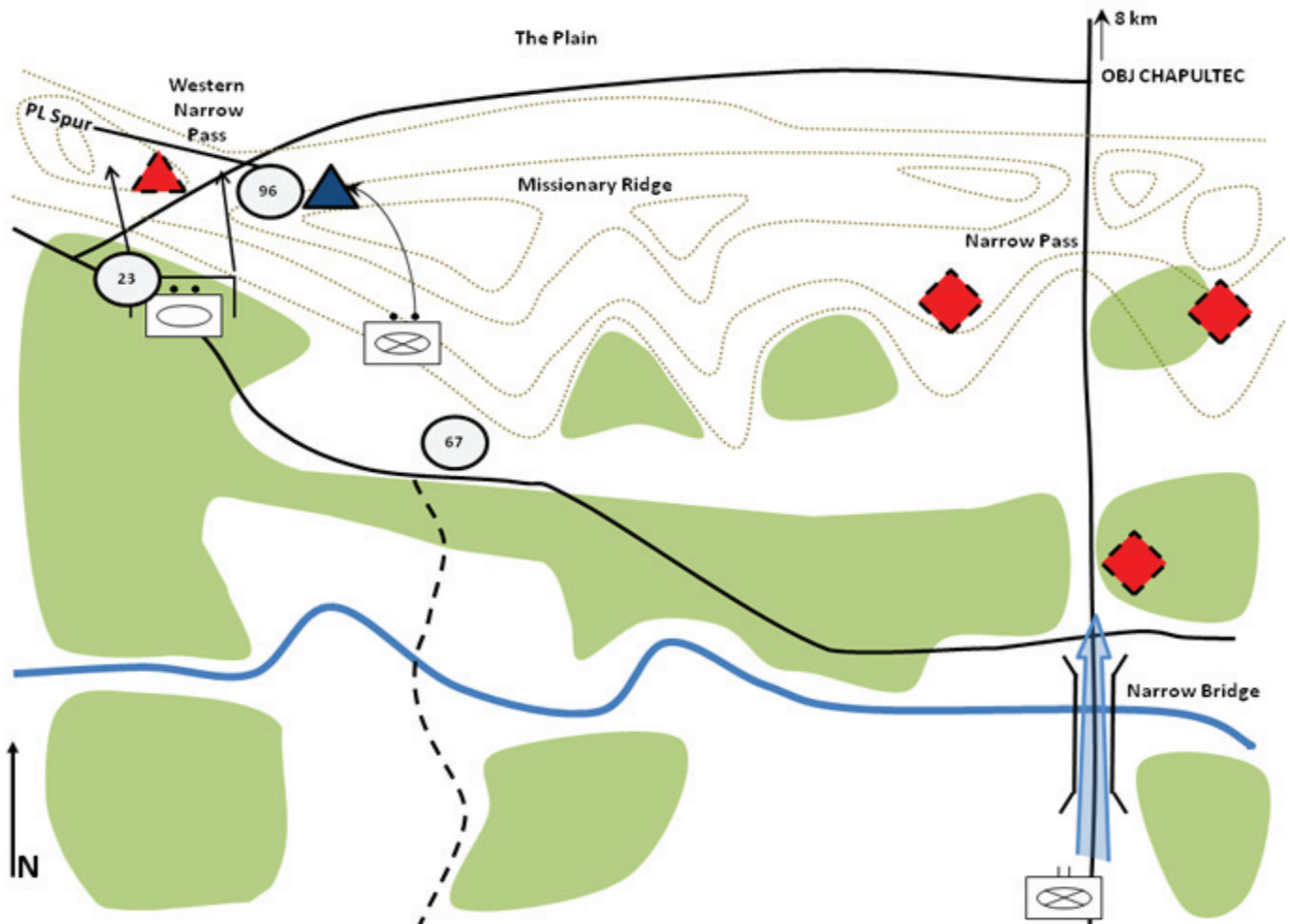
*mastery of written doctrine, but by the ability to employ available means to win battles and engagements. A solution may not match any previous doctrinal example; however, the language used to communicate that concept must be technically precise and doctrinally consistent, using commonly understood and accepted doctrinal terms and concepts." –ADRP 3-90*

In our scenario, the battalion commander states that he wants to "force passage onto the plain," but what does this really mean and how does it apply to us? Does he want to bypass enemy in zone and move to the plain as quickly as possible, or does he want to clear enemy and secure lines of communication before moving to the plain?[1, 2, 3]

## Key guidance

**Battalion commander's intent:** "Force passage onto the plain."

**Battalion mission:** 2-81 Armored follows and supports 1-502 Infantry Battalion's (Air Assault) attack to destroy enemy forces vicinity Objective Chapultec.

**Platoon task:** Screen the battalion's western flank.

**Platoon purpose:** Enable the battalion to follow and support 1-502.

Each option has merits and requires different actions on our part. Ideally, we would like to know more about what the battalion commander really wants – the expanded purpose of the operation – before we make a decision. At minimum, understanding his definition of "force" is critical. Of course, at this point we do not know, so we must assume what the battalion commander really wants the battalion, and our platoon, to do. Therefore, let us assume by "force" he means to "fix the enemy in place with fires and then conduct a bypass" rather than alternate techniques of either avoiding the enemy completely or maneuvering to destroy.[4,5,6]

This allows the battalion to continue to support 1-502's attack – at least, that is our assumption. The critical issue here is that the battalion commander's intent is vague. Rather than using "technically precise, doctrinally consistent and commonly understood

doctrinal terms and concepts," he uses vague and potentially misleading verbiage that evokes confusion.[7] Further, comparing his intent to the battalion's mission creates an even more puzzling dynamic.

## Battalion mission

*"A commander assigns a unit the task of follow and support to keep the supported force from having to commit its combat power to tasks other than the decisive operation, which would slow the offensive operation's momentum and tempo. The follow-and-support force accomplishes its tasks to prevent the enemy, obstacles and other factors from interfering with offensive actions, especially along the lines of communications." –Field Manual (FM) 3-90*

The battalion has the essential task to follow and support 1-502's attack on Objective Chapultec.[8] From doctrine, we know the battalion therefore has the responsibility – meaning it is committed and not a reserve – to trail and support the lead force conducting an offensive task (in our case, an attack). Moreover, we should understand that in a follow-and-support operation, the battalion's doctrinally prescribed tasks are as follows:

- Destroy bypassed enemy units;
- Block movement of enemy reinforcements;
- Relieve in place any direct pressure on encircling force halted to contain the enemy;
- Secure lines of communication;
- Clear obstacles;
- Guard prisoners, key areas and installations;
- Recover friendly battle losses;
- Secure key terrain; and
- Control dislocated civilians.

The challenge here is how much effort the battalion places on destroying the bypassed enemy units and securing the lines of communication vs. moving to relieve and/or re-enforce 1-502– which changes their mission from *support* to *assume*. During a follow-and-assume tactical mission task, a second committed force follows a force conducting an offensive task and is prepared to continue the mission if the lead force is fixed, attrited or unable

to continue.[9] In follow-and-support, the committed force is an enabling element to the lead force's offensive operation. The difference is obviously in the "assume" vs. "support" role. The brigade and battalion commander are probably struggling with this fact now, given that both lead elements of 1-502 and the main body of 2-81 Armor are in contact.

Therefore, based on our doctrinal understanding of the assigned mission, we can anticipate that the battalion commander – unless otherwise directed – will maneuver to defeat those units controlling the key line of communication leading into Objective Chapultec rather than seek to find a bypass and move to reinforce 1-502 as his intent implies. However, there easily could be a point at which 2-81 Armor works to bypass to assume 1-502's mission. This is a brigade decision point associated with a commander's critical information requirement, and you would understand the information requirements leading to that decision. What we do know is, at this point, our understanding of the battalion commander's intent and battalion mission somewhat contradict, and as a result, we cannot be completely sure how our platoon can best assist.

## Our task and purpose

With that in mind, our task is to screen the battalion's western flank. We know from FM 3-90.2 that "screen" is a security task that requires us to observe, identify and report enemy actions. We provide reaction time and early warning to the battalion so the commander can preserve his combat power to commit at the decisive place and time. Further, a screen requires several critical tasks – performed within our capability. For this operation, we should:

- Allow no enemy ground element to pass through the screen undetected and unreported;
- Maintain continuous surveillance of all avenues of approach larger than a designated size into the area under all visibility conditions;
- Destroy or repel all enemy reconnaissance patrols within our capabilities;

- Locate the lead elements of each enemy advance guard and determine their direction of movement in a defensive screen;

- Maintain contact with enemy forces and report any activity in the area of operations;

- Maintain contact with the main body and any security forces operating on its flanks; and

- Impede and harass the enemy within our capabilities while displacing.

Given those requirements, it is appropriate that we maneuver to destroy security elements (the fleeing observation post (OP), in our case) while remaining oriented on the battalion main body. However, does that CoA agree or counter our purpose as the tactical situation around us evolves?

We have to remember that the purpose of our screen is to "enable the battalion to follow and support 1-502." The key question then is, how does our screen assist the battalion mission? Alternatively, does our purpose within the overall operation at some point outweigh the specified task and drive us to alter from our stated task and purpose? If our purpose is to enable the battalion to follow and support, we should consistently think about how the battalion is working to enable 1-502 and how we can assist the battalion's execution of its CoA. We are an enabler. Essentially, this is our platoon's contribution to the fight, albeit a little harder to determine with conflicting guidance and no immediate direction. Before we act hastily, let us take a moment – since we are in contact – to develop the situation.

## What we know
*"With regard to narrow passes, if you can occupy them first, let them be strongly garrisoned and await the advent of the enemy." –Sun Tzu*

*"Undeniably, in a mountainous area, a small post in a favorable position acquires exceptional strength." –Carl von Clausewitz*

Terrain and weather are the common denominators in engagements, meaning that regardless of the composition and disposition of forces, the "playing field" is the same for both actors. The actor on the most favorable, or key, terrain possesses an initial advantage. In this case, we understand that we have an enemy occupying high ground and overwatching canalizing and compartmentalizing terrain – both of which give him a potential significant advantage.

The enemy "is primarily infantry with point obstacle and anti-tank capabilities augmented with small numbers of armored vehicles – a mix of T-72, BRD-Ms and BMPs." This composition arrayed in the restrictive terrain along Missionary Ridge also mitigates the maneuver and firepower advantages our mechanized vehicles provide. Attacking into this type of terrain against this type of enemy diminishes many of our strengths and requires more time and resources to effectively clear.

## What we think we know
Even a rudimentary terrain analysis leads to several assumptions on the disposition of the enemy. Knowing that Narrow Bridge and the line of communication leading to Objective Chapultec are critical to both friendly and enemy success leads to assuming that the focus for the enemy defense centers on that area. If we assume that the main engagement area focuses on Narrow Bridge, our platoon's particular concern is how the enemy has worked to secure his flanks, the location of his reserve and indications of where is he accepting risk. Identifying weakness in his defense provides something the battalion commander could use to his advantage if his attack stalls at Narrow Bridge.

We also can assume that the fact the enemy purposely engaged in and around its own dismounted elements indicates they are fighting from prepared positions with planned engagement areas with alternate and subsequent fighting positions – maybe validating the assumption on his disposition and also identifying obvious areas of strength. Further, the lack of reporting on his armor could mean that he is holding it in reserve to reinforce or counterattack.

## What we need to know
Although obvious, what we really need to know is where the enemy is and in what strength. We owe that to the battalion commander so he can develop options, but we have to do it without becoming so decisively engaged that he has to commit forces from the main body to reconstitute his flank security – or bail us out. However, knowing the battalion is in contact vicinity of Narrow Bridge starts to illustrate the basic enemy disposition.

We also need to know if there is an alternate route for the battalion to use should the attack stall on Narrow Bridge. At the same time, we need to know more about the success or lack of success of the battalion's attack. Quite simply, if the battalion is having success along Narrow Bridge, that action could create a different set of considerations for the platoon.

## Seizing, retaining and exploiting the initiative
*"The most consistently successful commanders, when faced by an enemy in a position that was strong naturally or materially, have hardly ever tackled it in a direct way. And when, under pressure of circumstances, they have risked a direct attack, the result has commonly been to blot their record with a failure." –Sir Basil H. Liddell-Hart*

Our lieutenant's dilemma is how to handle the conflicting scenario unfolding in front of him. Although there are many possibilities, they generally group into three basic options:

- **Stay the course.** Our lieutenant abides by stated orders and his perception of the battalion commander's intent and continues to screen the battalion's flank. Nothing in the battalion commander's guidance indicates that he would allow for excessive initiative from a platoon leader. For that reason, while the battalion situation seems to be deteriorating on the plain, the battalion commander believes his left flank is secure or at least has the ability to react based on the early warning the platoon provides. If the platoon was to give up

the flank and move to assist the battalion, there is no guarantee that either that action would help or that leaving the flank exposed is what the battalion commander would see as "responsible initiative." Consequently, staying where we are and continuing to screen makes sense.

- **Attack the enemy's flank.** Our lieutenant makes the assessment that since the battalion is in contact and all good lieutenants in the absence of further orders attack, he should do so. In this case, the lieutenant knows that the battalion is involved in a heavy firefight and assumes that the best way to alleviate pressure is to move toward contact, thereby forcing the enemy to deal with two problems simultaneously. The advantage here is that it potentially exposes the enemy flank, which is a proven tactic when attacking fortified positions; however, in reality, dealing with limited visibility and a dynamic situation limits the effectiveness and potentially adds confusion to the battalion's attack. Given the terrain and the prepared defensive positions, perhaps the only way the battalion controls Narrow Pass is by attacking the enemy's flank (a tactic, it seems, is unfolding to the west). Unless the battalion commander directs or gives approval, a platoon moving on its flank "unsolicited" could have significant consequences both by exposing the battalion's flank and by presenting the opportunity for fratricide. Bottom line is, it mandates coordination of fires and synchronization of effort. Finally, should the battalion's attack begin to succeed, the now-exposed left flank is a likely avenue for the armor reserve to counterattack, and there is no one securing the battalion's flank.

- **Take the high ground.** At this point, the lieutenant makes several assumptions. First is that the battalion will be challenged to make it through Narrow Pass without significant losses, which will cause the battalion to look for other options. Second, if he abandons

the battalion flank, he throws what certainty the battalion commander has about the situation out his hatch. Finally, if you were the battalion commander or S-3, you would want someone to provide some decent options and begin setting conditions for them. Setting conditions for any battalion movement would require understanding the terrain around Missionary Ridge and the Western Narrow Pass. You can bet that the OP you had visual contact with had the task to provide early warning about activity on the enemy's right flank. If we wait too long to act, the enemy could easily reposition his reserve to block the gap along the Western Narrow Pass (if he has not done so already), or the pass might already contain a significant blocking effort (which we do not know). Further, if the battalion stalls at Narrow Bridge, one of the battalion's next-best options is to move west through the Western Narrow Pass, but unless we act, the commander would (or should) have to generate a reconnaissance force to develop the situation – taking valuable time and combat power away from his main body.

## Author's solution

"Blue, this is Blue 1. WARNO follows."

"I am posting graphic control measures on our Blue Force Tracker, acknowledge receipt."

"Battalion is engaged vicinity Narrow Bridge, lead elements of 1-502 are in contact to the north, and we had visual contact vicinity CP 67 with two to three dismounts, which I believe to be an OP overwatching Western Narrow Pass."

"We are going to continue to screen the battalion's western flank while developing other options. Namely, once the net clears, I am going to engage the battalion S-3 on a revised CoA for us. Upon approval, I want to move quickly to secure the Western Narrow Pass to both provide early warning for the battalion and secure it as a potential avenue for the battalion to use should their attack on Narrow Bridge fail. If I can't get through on the net, then I'll make the decision to execute."

"White 3 and 4 [mech]. On order, I want you to move to the spur on the east side of the Western Narrow Pass (CP 96 on your graphics) and establish an OP observing both the Western Narrow Pass and north of Missionary Ridge to figure out the enemy composition and disposition and if they are moving in our direction. Expect contact. Clear dismounts, take extra precautions for point obstacles and let me know if you have any contact with mechanized or anti-tank elements. What we can't afford is to become decisively engaged."

"The trigger for you to move is when Blue 1 and 2 are set in the support by fire."

"Blue 2 [tank]. On order, move with me to establish a support-by-fire vicinity CP 23 to cover White's move to CP 96. Once you are able to observe the Western Narrow Pass, White will bound to establish a hasty defense along PL Spur oriented on the plain north of Missionary Ridge. Standard lift and shift fire procedures apply."

"Acknowledge."

## Rationale

The key element to this CoA is requesting a decision out of the battalion leadership before acting. At this point, we should consider that the battalion is acting based on the assumption that our platoon is maintaining a flank screen. Any actions that detract from that deserve (if not mandate) going back to the headquarters who issued the order and requesting to deviate from the directed CoA.

Nevertheless, there is a point where the loss of communication or urgency of action mandates initiative within intent. In this case, our lieutenant makes the decision that control of the Western Narrow Pass is growing in importance and provides a warning order to his platoon so they can start planning while he attempts to get approval from the battalion. Second, battalion needs to hear his perspective on the problem, and by bringing a solution, he helps the battalion S-3 and commander formulate branches and

sequels. If he fails to reach the battalion, then he will have to make a decision within what he believes is the battalion commander's intent.

The tactic of using the tank section (led by the platoon leader) to establish a support-by-fire while the mech section (led by the platoon sergeant) dismounts and attempts to flank what most likely will be a defended position is fundamentally sound. The trick in this scenario is not to become decisively engaged and thereby compound the battalion's problem. The interesting discussion would be at what point does the lieutenant act without guidance?

# Closing

*"The commander should train to be able to cut to the heart of a situation, recognize its important elements and base decisions on those important elements as a part of mastering the Army profession. Commanders develop this capability after years of education in military schools, self-study and practical training experiences, which eventually develop the intuitive faculties required to solve tactical problems." – ADRP 3-90*

This is a lot to expect a lieutenant to do, and the scenario could easily expand to address the battalion problem set. With that, audacity and initiative are values we nurture and seek to grow within our command cultures; however, understanding when audacity and initiative become irresponsible derives from experience and good judgment. In this case – as in many cases – we are asking the lieutenant to interpret, anticipate, assume and take responsible initiative within his commander's intent. This is normal in combat. How then do we grow audacity and initiative within our commands with limited access to training and combat experience? Perhaps, as ADRP 3-90 states, an element to that solution is in studying and solving tactical problems such as "Battle at Narrow Bridge."

As we do these, it is good to remember there are three elements to solving tactical problems. First is the ability to identify the problem and determine plausible solutions. This is perhaps the easiest of the three – especially when given the relative comfort of an office or classroom. Second is the ability to communicate a solution. Brevity and clarity combine with simplicity to ensure the orders are received correctly and often only over a radio. Can the leader help his subordinates visualize the problem and CoA? Finally is the ability to lead the execution of a solution. This is not necessarily "out front" but often from a position where you as the leader can make the decisions only you as a leader can make while providing the appropriate presence to feel the outcome.

As we explore solutions to this and other tactical problems, it is important to keep these three considerations in mind. Remember: while it might be a doctrinally correct answer, can the leader communicate it simply and quickly is almost as important as a correct answer.

These exercises allow us to get "mental reps" at dealing with tactical problems. Engaging in problem-solving sessions helps build experience in facing these types of tactical issues and provides mental references for future scenarios. Finally, when done in an open session with leaders and subordinates, the associated dialogue – and often debate – creates an opportunity to understand how leaders approach solving these types of tactical problems. Consequently, we as leaders are better able to anticipate and assume on the battlefield even with the lack of clear guidance and perhaps comprehend what it means to "force passage onto the plain."

*(Editor's note: If you wish to present an alternative solution, please submit it to usarmy.benning.tradoc.mbx.armor-magazine@mail.mil within 30-45 days after this edition is posted on-line but no later than Jan. 14, 2015. The material to be submitted is a fragmentary order as if you were speaking on the radio or via Blue Force Tracker message. Then, following your initial FRAGO, clearly define the problem(s) as you see it/them. Please submit both your initial FRAGO and discussion of the problem, assumptions and rationale for your solution to **ARMOR** for possible publication.)*

*LTC Scott O'Neal is a lifelong student of the profession who believes in the detailed practice and study of tactics. He has had the privilege of leading Soldiers from platoon through battalion level and served on a variety of operational staffs throughout his career; his duty assignments have included squadron commander, 2/3 Cavalry Regiment, Fort Hood, Texas; regimental operations officer, 3rd Armored Cavalry Regiment, Fort Hood; operations officer, 1/3 Armored Cavalry Regiment, Fort Hood; commander, Headquarters and Headquarters Troop, 1-1 Cavalry, Budingen, Germany; and commander, Troop A, 1-1 Cavalry, Budingen. LTC O'Neal holds a bachelor's of science degree in international and strategic history from the U.S. Military Academy, West Point, and a master's of arts degree in military arts and science from Air University.*

## Notes

[1] *Secure* is a tactical mission task that involves preventing a unit, facility or geographical location from being damaged or destroyed due to enemy action.

[2] *Clear* is a tactical mission task that requires the commander to remove all enemy forces and eliminate organized resistance within an assigned area.

[3] *Bypass* is a tactical mission task in which the commander directs the unit to maneuver around an obstacle, position or enemy force to maintain the momentum of the operation while deliberately avoiding combat with an enemy force.

[4] For a more complete discussion of bypass maneuver, see FM 3-90-1, Page B4.

[5] *Defeat* is a tactical mission task that occurs when an enemy force has temporarily or permanently lost the physical means or the will to fight.

[6] *Destroy* is a tactical mission task that physically renders an enemy force combat-ineffective until it is reconstituted.

[7] The vagueness invoked by the simplistic guidance "to force passage onto the plan" is purposeful and meant to evoke conversation and highlight the importance of well-thought-out and clearly communicated commander's intent.

[8] *Follow and support* is a tactical mission task in which a committed force follows and supports a lead force conducting an offensive task.

[9] *Follow and assume* is a tactical mission task in which a second committed force follows a force conducting an offensive task and is prepared to continue the mission if the lead force is fixed, attrited or unable to continue.

# The Stability Corps:

## Organizational Change for Full-Spectrum Capability

**by CPT Eli Feret**

As coalition forces hand authority in Afghanistan to the Afghans, the U.S. Army returns home to consider what it has learned over the last 12 years of hybrid conflict. Despite the combined-arms maneuver (CAM) victories of Operation Desert Storm and the initial phases of Operation Iraqi Freedom, the recurring demands of wide-area security (WAS) have posed a much greater challenge to the post-Cold War Army. Although the U.S. government's official policy is that the Department of State (DoS) should take the lead in stability operations, the Department of Defense (DoD) has the budget, manpower, mobility and capacity to use force that DoS simply does not.[1] Therefore DoD can expect to continue to be the lead player in these types of operations as long as the allocation of resources remains fundamentally unchanged. After all, an essential piece of our job is "accomplishing all missions assigned by the president,"[2] and recent calls for intervention in Syria demonstrate that Washington will likely continue to involve DoD in complex conflicts following our withdrawal from Iraq and Afghanistan.

Since WAS, stability operations and counterinsurgency (COIN) emerged as capability gaps in the late 1950s and 1960s, the Army has traditionally placed these missions as secondary considerations to its primary focus on large-scale conventional operations.[3] In the wake of the last 12 years of conflict, the Army has adopted many changes in its doctrine, organization, training, materiel, leadership and education, personnel and facilities (DOT-MLPF) to improve its WAS capabilities. However, these changes have not addressed the problem that the U.S. Army is poorly constructed to face the current threat. To succeed in the complex conflicts of the future, the Army needs to improve its organization and create a Stability Corps dedicated to executing WAS as its primary mission.

## Outdated model

As of 2013, the structure of the U.S. Army is still fundamentally designed to fight the vast Soviet army on the fields of Europe. Following the end of the Cold War, the force kept this structure with the idea that the Army must be capable of fighting and winning two large ground conflicts on two fronts simultaneously against Soviet-style equipment – for example, against Iraq and China.[4] However, large conventional conflicts between states have not been the norm for the post-Cold War world, and top experts believe this trend will continue and grow in the future.[5] A capable conventional force is obviously important strategically in the same sense as a battleship: if necessary, the United States needs to be able to deliver decisive forces of destruction. However, it is much more

likely that the future will require the Army to simultaneously conduct multiple WAS operations while also needing to maintain its ability to deliver a knockout blow against conventional threats.

While our Soldiers have gained invaluable experience in WAS over the last 12 years, many leaders fear they have also lost mastery of their core competencies, weakening our ability to conduct decisive CAM against the potential conventional enemies who very much still exist in this world. COL Gian Gentile, a vocal opponent of an Army obsessed with stability operations, offers that "we have eviscerated the Armor Corps to the point of its extinction."[6] He asks if an armored brigade combat team (BCT) deployed to conduct WAS could realistically "pick up and head east and do a movement-to-contact into a threatening country."[7]

This is a valid question, especially as the combined-arms system faces degradation from other forces such as budget reduction. It is also important to consider the relative weight of a large-scale conventional threat. While stability operations are usually important in securing a limited interest or objective, large conventional forces exist to protect our national identity, and the cost of failure could be much higher. The assumption that any force trained in major combat operations would be able to easily adapt to low-intensity conflict has proven incorrect as Army leaders have struggled with the nuanced intellectual challenges of stability operations since 2001.[8] It is unwise, perhaps impossible, to ask a single force to be equally proficient at two missions as different as CAM and WAS are.

## Different approach

One potential solution would be to create a new branch, a Stability Corps, to equip the Army with a force that conducts WAS as its primary mission. The Army could implement this strategy at many levels in our force, but the most logical organization is several brigade-sized elements, a proven unit structure for modularity and mobility. This Stability Corps would fill the void between high-intensity combined-arms forces and low-intensity Special Operations

Forces (SOF), and allow each of the three to focus on its individual threats, integrating if a mission (real or training) calls for such a combined force.

Currently, there is perhaps greater institutional knowledge of stability, security, transition and reconstruction (SSTR) operations than ever before at every level in the U.S. Army. It would not be difficult to staff a new Stability Corps with leaders at all levels who are competent and experienced in SSTR operations. This new organization would attract quality Soldiers by its increased relevance in the current threat environment and higher likelihood of deployment compared to the CAM force, which the Army could hold in reserve for a knockout blow against symmetric threats.

The combined-arms force would benefit by being able to hone its core competencies for the moment of need rather than watch its skills degrade over an exhausting deployment. The mission would benefit by allowing combatant commanders to commit, when needed, a force specifically trained for stability operations that will embrace this mission as a fulfillment of its core skills.

There are countless ways to establish a Stability Corps in the Army, but there are some requirements in forming such a force that are fundamental to its success:

- The Stability Corps must have WAS as its primary mission. This achieves the fundamental specialization lacking in the current Army organization.

- The Stability Corps must have similar manning and equipment as infantry and military-police units: minimal equipment and an emphasis on training individuals and small units, as opposed to mastering complex technological systems.

- The Stability Corps must conduct regular training and integration with other U.S. government agencies, conducted at a similar frequency as maneuver units conduct combined-arms training. Like SOF units, the Stability Corps can expect to execute almost all its missions alongside other agencies,

intergovernmental organizations and nongovernmental organizations.

- The Stability Corps must have regional focus to achieve the depth required to thrive in specific operating environments. Consequently, language education must be an initial-entry requirement and a regular part of training.

- The Stability Corps must be large enough to provide organic security while deployed; the current structure of modular BCTs provides a good starting point for force size that balances weight with mobility.

By adhering to these basic guidelines, the Army of tomorrow would add a force that will truly be able to commit a full-spectrum response to a full-spectrum threat.

## Are current efforts enough?

Since 2001, the Army has instituted drastic changes to its DOTMLPF to adapt the force to effectively conduct WAS. The dearth of doctrine after the post-Vietnam purge was one of the first shortcomings identified and addressed. New manuals such as Field Manual (FM) 3-24, *Counterinsurgency*, and Army Doctrinal Reference Publication (ADRP) 3-07, *Stability*, have been revolutionary in inculcating the lessons of stability into Army doctrine.

Forward-thinking Army leaders have also recommended and initiated many changes to the leadership and education spheres of DOTMLPF to improve our capability in WAS. BG David Haight, former Infantry School commandant, explains that leaders, faced with limited time and resources, will prioritize training on their core missions as opposed to what they see as tertiary objectives. He proposes that the Army place special emphasis on rigorously training Soldiers and leaders in adaptive problem-solving across the spectrum of combat operations.[9]

While these changes are undoubtedly essential to the future of our profession, he acknowledges the large cultural biases in the maneuver branches against embracing the SSTR mission.[10] These biases are not new and

have lingered since the Army ignored pressure from the Kennedy Administration to embrace COIN in the early 1960s.[11] The creation of the Stability Corps would not require such drastic changes in the entrenched mindset; rather, it would carve out a space where a new culture could develop without the baggage of our own biases.

There have been some important changes in Army organization since 2001 that better enable WAS operations. The Army's reorganization in 2004 around BCTs immeasurably increased our force's mobility and modularity.[12] Also, in 2012, the Army announced the plan to create a rotating team of regionally aligned brigades – maneuver units that would have a geographic focus for a number of years, making them preferred candidates to respond to the needs of combatant commanders in their specific areas.[13] This initiative could definitely be an effective measure to bridge the gap while we build a Stability Corps, but the concept of a maneuver brigade focusing on a specific geographic area for a number of years does not solve the problem of embracing SSTR. Brigades have known they were deploying to Iraq and Afghanistan years ahead of time, sometimes on consecutive rotations to the same area, and have still struggled with the challenges of WAS because they were not trained, manned and organized for this mission.

Another organizational change implemented since 2001 to increase the Army's capabilities in WAS has been a significant increase in the size of SOF.[14] Some claim that the lead for WAS operations in the U.S. Army belongs to Special Forces, and that the creation of a Stability Corps violates the warning that "[SOF] cannot be mass produced."[15] However, a Stability Corps would not serve the same purpose as SOF; it would be a specialized force in the same sense that other branches are specialized. Army SOF operate in "hostile, denied or politically sensitive environments characterized by one or more of the following: time sensitive, clandestine, low visibility, conducted with and/or through indigenous forces, requiring regional expertise and/or a high degree of risk."[16]

The deployment of Stability Corps forces, however, could serve as a large and overt show of support to an area in need. Such a force in the U.S. Army would be the ideal responders to humanitarian crises or to take part in United Nations' peacekeeping missions around the world. A Stability Corps would not replace the need for SOF to execute operations in low-intensity environments but rather bridge the massive gap between SOF and the rest of the Army.

With the implementation of a Stability Corps, the U.S. Army would have three distinct forces to respond to different threats: CAM for high-intensity conflict, SOF for low-intensity conflict and the Stability Corps for medium-intensity conflict and WAS. The availability of these three forces would give combatant commanders the ability to build the right team for the right mission.

## Starry's challenge

There are many valid reasons the Army has preferred to change other aspects of DOTMLPF over substantially changing its organization. For one, the rotational deployment schedule of the last decade made it impractical to restructure the Army while it was engaged in two wars. Second, organization is arguably the most difficult (because of culture) and expensive (for practical reasons) aspect to change. GEN Donn A. Starry analyzed a similar revolution in military affairs after World War I as major powers struggled with how to implement the concept of armor. He explains that some of the criteria for success include institutional leadership, forward thinking and "willingness and ability to adapt to change."[17] We have all these necessary ingredients, and as our fight in Afghanistan draws down, we finally have the time and space available to implement the necessary adaptations.

The U.S. Army is a large, bureaucratic organization, and change is not always easy or rapid, but Starry's challenge is that the Army cannot afford the luxury of inefficiency when preparing for the threats of tomorrow.[18] The ability of small cellular networks to conduct effective unconventional warfare against our maneuver forces is no less a revolution in military affairs than

the addition of the tank to maneuver warfare. If we are unable to adapt to this new reality, we will find ourselves unable to match the enemies of the future as the British and French were initially unable to cope with the German blitzkrieg. The cost of change may be high and uncomfortable, but the cost of ignoring the lessons of the last 12 years would be far more tragic.

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## Acronym Quick-Scan

**ADRP** – Army doctrine reference publication
**BCT** – brigade combat team
**CAM –** combined-arms maneuver
**COIN –** counterinsurgency
**DoD** – Department of Defense
**DoS** – Department of State
**DOTMLPF –** doctrine, organization, training, materiel, leadership and education, personnel and facilities
**FM** – field manual
**SOF** – Special Operations Forces
**SSTR** – stability, security, transition and reconstruction
**WAS –** wide-area security

**Figure 1. A coalition-force member maintains security during a meeting with Afghan local policemen in the village of Khost, Farah Province, Afghanistan, Nov. 2, 2012. Creating a new branch in the U.S. Army, a Stability Corps, would equip the Army with a force that conducts WAS as its primary mission.** (*U.S. Marine Corps photo by SGT Pete Thibodeau*)

# 9ᵀᴴ CAVALRY REGIMENT



The distinctive unit insignia was originally approved for the 9th Cavalry Regiment Oct. 22, 1925. It was redesignated for the 509th Tank Battalion May 23, 1951. It was amended to change the symbolism July 31, 1951. The insignia was redesignated for the 9th Cavalry Regiment Oct. 1, 1958. The five-bastioned fort was the badge of the Fifth Army Corps in Cuba, of which the 9th Cavalry was a part. The yellow outline is for the Cavalry, and the blue for active service in the Spanish-American War. The mounted Indian represents the Indian campaigns of the regiment.