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LETTERS

Dear ***ARMOR***,

In the article "Reconnaissance Training: a Time for Innovation" (***ARMOR*** October-December 2013 edition), CPT Amos C. Fox asserts that the Cavalry Leaders' Course (CLC) should be integrated into the Maneuver Captains' Career Course (MCCC) for the purposes of expanding maneuver officers' knowledge of cavalry operations at the troop and squadron level. While I agree wholeheartedly with the purpose of his article, I must disagree with the proposition, as it will likely erode the effectiveness of the CLC curriculum.

Fox points out the relatively low number of noncommissioned officers who attend CLC in the resident course. While from a pure numbers standpoint this is correct, the intangible benefit of having NCOs in the class is overlooked. NCO students provide grounded experience and context for the officers, whose experience in cavalry operations is varied. The result is an officer graduate who has had an "aperture widening" classroom experience through the combination of knowledge and experience provided by the NCOs, and an NCO graduate who has had the opportunity to learn alongside commissioned officers and increase his exposure to military operations above the platoon and troop level. Indeed, every class I have taught has resulted in an NCO revealing to me that he has a much better appreciation for what his commanders do and how to better support it. That cultivation of senior NCOs will pay dividends when they return to an operational unit.

Also, Fox's article does not address the increased number of non-armor/infantry officers who attend the course, which will be severely degraded if CLC is folded into MCCC. A typical resident CLC class will contain a small number of aviation officers from the Aviation Career Course, as well as field artillery, engineer and other non-maneuver branches – and this percentage is even greater on mobile training teams. These students come from various points in their careers, from pre-command junior captains and lieutenants to field-grade officers in squadron and brigade staff positions. This mixture of rank and branch, coupled with the NCOs previously mentioned, creates a learning environment unique from MCCC and its branch equivalents. The result is a course where students learn not just from the instructor but also from the experience of seasoned NCOs and the knowledge of other officers.

If reconnaissance and security training is important, we should seek to avoid the one-size-fits-all military-education system. Integration of courses like CLC with MCCC, and the Army Reconnaissance Course (ARC) with Armor Basic Officer Leadership Course (ABOLC) (as has been mentioned in some circles) will, without question, decrease the effectiveness of the course and its output. As a functional course, CLC is able to focus wholly and solely on the doctrine and tactics of cavalry operations. The result is an instructor who is an expert in his craft and laser-beam-focused on training future cavalry leaders. Instructors will, on average, conduct eight to 10 teaches annually, creating unmatched expertise in the doctrine and course outcomes. To combine CLC's curriculum into a professional military education (PME) course like MCCC – which is required to train students across a broad spectrum of subjects – will degrade this expertise. While the numbers will show an increase in "trained" officers, the reality is those officers' understanding of cavalry doctrine will be greatly reduced from current CLC standards.

While we appreciate the value placed on CLC in Fox's article, we must also point out that the course's autonomy is what creates that value: the ability to focus solely on providing world-class cavalry operational and doctrinal instruction. Instead, the Armor Branch should consider the percentage of its officers who will serve in cavalry organizations vs. armor units and adjust its training focus accordingly, as addressed in the article "Ideas on Cavalry" (***ARMOR*** October-December 2013). To integrate with the MCCC would not result in innovation but would rather lead to stagnation.

BRIAN J. HARRIS
CPT (P), AV
CLC Manager

COMMANDANT'S HATCH

BG Lee Quintas
Commandant
U.S. Army Armor School

Developing and Integrating Capabilities at the Armor School

The Armor School is off to a fantastic 2014! The momentum gained in 2013 certainly sets the stage for a productive, prosperous and inspired new year. As we orient on the strategic goals of the Army of 2020, leaders across the Maneuver Center of Excellence (MCoE) recognize an enduring element: that our future success within unified land operations rests on our Soldiers' and leaders' expertise to conduct combined-arms maneuver and wide-area security in a complex environment and against a dynamic and sophisticated hybrid threat.

Accordingly, the Armor School continues to improve our ability to integrate all our efforts toward delivering first-class training and leader development. We optimize the execution of our courses through a broadly collaborative effort that includes the Infantry School and MCoE, other centers of excellence and across the force. The relevance, rigor and thoroughness of each of our courses ensures Soldiers and leaders have the requisite skills and development to understand and master their critical competencies as members of the combined-arms team.

The Armor School acknowledges its unique role in our collective responsibility to educate, train and inspire America's Armor and Cavalry Soldiers and leaders for a lifetime of service to the nation. From the new Soldiers and lieutenants who volunteer and compete to join our formations, to our battle-hardened veterans, the Armor School provides the foundation of initial and functional training as well as leader development. As the Army continues to adapt to an ever-changing fiscal and security environment, the Armor School, as part of the MCoE, plays a key role in developing, evaluating and integrating capabilities in support of the operating force. Through this transition, we continue to provide well-trained Soldiers and leaders to populate our Armor and Cavalry formations. As we evolve the force to improve its capabilities, I ask for your continued support to provide your best and brightest to the home of Armor – to properly invest in our future, especially as we navigate this challenging period.

I'd like to highlight my guidance for ***ARMOR***'s further development (and hopefully improvement). As you read this edition, you will notice several changes to the publication. My intention, as we continue to make adjustments to the magazine, is to enhance reader experience while providing a forum that shares information and best practices, proposes new ideas and presents alternative and adaptive approaches. ***ARMOR*** will spark frank, open and energetic discussion on issues that matter to our profession – not only within the context of the magazine, but also among all of our community. Also, each edition will center around a theme that captures Armor and Cavalry subjects while remaining focused on promoting dialogue.

This publication is Cavalry-based with a theme of "developing, evaluating and integrating capabilities." Following are the focus and theme for our upcoming editions of 2014:

- March-April (Armor focus, "transitioning to an Army of preparation / decisive-action training environment" theme);
- May-June (Cavalry focus, "6x36 scout formation" theme);
- July-August (Armor focus, "mobile protective firepower" theme);
- September-October (Cavalry focus, "regional force alignment and reconnaissance and security echelons above brigade" theme);
- November-December (Armor focus, "Army 2025" theme).

As the Army continues to transform, it is important that our professional publications like ***ARMOR*** propose different viewpoints, exchange ideas and share lessons-learned and best practices. We want you to enter the discussion on our most controversial topics!

The magazine will also feature a

number of recurring columns. As always, Thunderbolt 7 and I will use Commandant's Hatch and Gunner's Seat to share current ideas and initiatives relevant to the combined-arms team. We will also feature "From the Screen Line" to highlight emerging Cavalry topics, as well as "From the Boresight Line" to capture the latest from the Bradley and tank master-gunner schools. The "Saddles and Sabers" column will provide a historical perspective of Armor and Cavalry, while "Battle Analysis" will provide a detailed and thorough look into a conflict to highlight and reinforce enduring lessons for the force.

Starting in the next edition, we will present a tactical vignette titled "What's Your Next Move?" Many readers will remember tactical vignettes that were very popular in ***ARMOR*** in the 1990s. Given the unique situations in the past decade, and our emphasis on adaptive leadership, tactical vignettes provide an exceptional tool to exercise and practice our tactical acumen. Along with your proposed solutions, I also encourage you to submit your own challenging and thought-provoking scenarios to the community. With each tactical vignette, we will publish the author's solution in addition to "A Way: The Reader's Best Solution" in follow-on editions.

ARMOR will provide a vibrant, relevant and interactive medium for the Armor and Cavalry community. As with all ideas, there will be dissenting views. I encourage them! If you disagree with a viewpoint, present your case to the rest of us. There are a number of ways you can submit your thoughts, comments and concerns. We will continue to publish letters to the editor, as we did in this edition, when we receive feedback or alternative views on a previously published article. There are various on-line sites dedicated to facilitating correspondence. Each of the articles published on e***ARMOR*** (http://www.benning.army.mil/armor/eARMOR/) provide space for you to capture your thoughts and respond to other opinions. Log onto the e***ARMOR*** Facebook page (https://www.facebook.com/pages/ARMOR-magazine/122557661278366) to see updates, read recent articles and share. And of course, you can email me directly as well.

I look forward to hearing from you! Forge the Thunderbolt!

GUNNER'S SEAT

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

Focusing on Tactical Expertise, Role of NCO, Developing Future Scout and Armor Crewman

This month, ***ARMOR*** looks at how we are developing, evaluating and integrating capabilities. From my position, what does this mean to the Armor noncommissioned officer? Certainly, the NCO has the responsibility of training the small units of the Army – crews, teams and squads – to fight together cohesively by using their training and equipment effectively. We all know that tough, realistic training breeds a confident team focused on accomplishing the mission. But is there a larger role for the NCO? Are there responsibilities that go beyond training? As our units down to the squad level gain access to more enablers and greater capabilities, the "everyday" job of the NCO grows. The NCO's expertise in training and employing capabilities available to the squad and platoon, and in advising the commander at the company and battalion, is of paramount importance to our Armor and Cavalry force. This role has expanded exponentially during operations in Iraq and Afghanistan. With this in mind, I believe we should focus on three critical areas: tactical expertise in the operational unit, the role of the NCO in the generating force, and the development of the future scout and armor crewman.

In most of our Armor and Cavalry force, the NCO is responsible for building the team at the operational level and for being the tactical expert at employing his squad or platoon. SFC Gary Littrell was awarded the Medal of Honor for his actions while serving as an adviser to the Army of the Republic of Vietnam; his citation best exemplifies this role:

Repeatedly abandoning positions of relative safety, he directed artillery and air support by day and marked the unit's location by night, despite the heavy, concentrated enemy fire. His dauntless will instilled in the men of the 23rd Battalion a deep desire to resist. Assault after assault was repulsed as the battalion responded to the extraordinary leadership and personal example exhibited by SFC Littrell as he continuously moved to those points most seriously threatened by the enemy, redistributed ammunition, strengthened faltering defenses, cared for the wounded and shouted encouragement to the Vietnamese in their own language. When the beleaguered battalion was finally ordered to withdraw, numerous ambushes were encountered. SFC Littrell repeatedly prevented widespread disorder by directing air strikes to within 50 meters of their position. Through his indomitable courage and complete disregard for his safety, he averted excessive loss of life and injury to the members of the battalion.

Without a doubt, our collective ability to be that expert, both personally and in the development of our Soldiers, has expanded with new systems and technological resources previously unavailable now being exploited at the squad level. However, this increased capacity is easily met with greater potential, ability and aptitude of today's NCOs. Nonetheless, it will require a greater emphasis on NCOs identifying and teaching individual tasks, determining their collective tasks, and having the CSM and other key NCOs reviewing, refining and certifying those tasks. This chain of events will be the key in retaining 12 years of hard-won experience and its integration with more traditional Armor and Cavalry tasks and missions.

Some of the best Armor NCOs are serving inside the generating force, and that continues to be a goal we will maintain. The upholding of standards in the schoolhouse is a sacred responsibility that will not be forfeited. Leadership development is the Armor School's main effort, and NCOs play a pivotal role in teaching, coaching, mentoring and training the future of our Armor and Cavalry force at every level. In an era of diminishing resources, we can no longer have an "operational vs. institutional" mindset but must find ways they complement each other. To serve in this capacity, an NCO must be qualified as a squad leader, tank commander or platoon sergeant; 99 percent of the NCOs in the generating force have recent, relevant deployment and combat-related experiences they bring to the classroom to ensure we are integrating real-world capabilities and scenarios into instruction.

Instructors at Fort Benning have made great strides incorporating rotary-wing assets, high-frequency communications, Air Force Joint Terminal Attack

Controllers (JTAC) and unmanned aerial vehicle platforms into day-to-day lesson plans. On a more fundamental level, added rigor in one-station unit training (OSUT) and the NCO Academy (NCOA); increased physical-fitness and land-navigation requirements; weapon- and platform-specific training; and the return of a culminating field-training exercise (FTX) conducted in the field with leaders and Soldiers from all courses (Armor Basic Leadership Course (ABOLC), Officer Candidate School (OCS), NCOA and OSUT) training ensures we are developing the capabilities the force requires. Leaders and Soldiers being evaluated in their respective positions also aids development of these capabilities.

As we seek to define, develop and evaluate future capabilities, the NCO remains at the forefront. NCOs have led their elements or participated as evaluators and observers during Army Expeditionary Warfare Experiments (AEWEs), where they have pioneered the 6x36 scout platoon and precision fires at the squad level, and have worked to formalize the requirement for a company intelligence-support team (CoIST). Also, NCOs are working hard on the development of the "scout of the future," identifying the skillsets needed for reconnaissance leaders in 2020 and beyond. Legacy tasks like "provide early warning" are being maintained, while "integrate joint capabilities" are added and "integrate indigenous forces" is evaluated to maintain the premier reconnaissance capability the Army has always enjoyed. These projects, along with NCOs serving in developmental roles where they test and evaluate future vehicle and weapon systems, ensure we are focused on the integration of capabilities from across the spectrum to develop the best mounted warrior.

In summary, the Armor NCO's skills, training and professional experiences makes him an invaluable tool to our branch and a critical part of our development strategy. His ability to train his formations, coach and mentor, and use experience to evaluate future capabilities will be essential in the Armor force's future.

How Master Gunner Training Improves Unit Readiness

The company-level master gunner serves an important function in maintaining unit readiness. The foundation for the master gunner's success is set at the Master Gunner School, located at Fort Benning, GA, part of the Maneuver Center of Excellence. Most commanders are aware the master gunner can be a vital asset to unit gunnery training but may be less aware of the training the master gunner has received that prepares him to bridge the gap between crew-level knowledge of turret systems and the full capabilities of a maintenance team.

Master-gunner maintenance training begins with a basic understanding of how electricity works. Master gunners are taught the basics of electron theory and the paths electricity takes as it travels through the turret. A master gunner is taught to read schematics, and this helps lay the foundation for follow-on troubleshooting training. A master gunner is by no means an electrician, but in this case, a little knowledge goes a long way.

The next step in training is learning the functions and capabilities of the M256 guntube, breech ring and recoil system. This teaches the master gunner several important maintenance functions. When and how is the recoil exercise conducted? What is the proper method for conducting a borescope exercise? How is a condemned guntube identified? The master gunner has the answers to all these questions and more. The master gunner has the knowledge to interpret and enter data on a Weapon Record Data Form, DA 2408-4.

The master gunner understands the hydraulic system and can rapidly identify problems. The turret must be exercised (spun around three times to the left and right), but why? The master gunner knows this rapidly forces the hydraulic fluid through the hydraulic reservoir, where a series of baffles removes air from the system.

Armament accuracy checks (AACs) are conducted once a month at crew level. The average tank commander knows how to conduct AACs. The master gunner understands that AACs ensure the fire-control system is fully operational. The master gunner is trained precisely on how to do each step and is a valuable asset in training crews to properly conduct AACs. A master gunner can identify possible reasons for AAC failures and can even construct an AAC solution board with just some plywood and paint.

When it comes time to conduct gunnery, the master gunner is in his element. To maximize the tank's capabilities, the crew must be well versed in the employment and functional operation of the fire-control system. For example, as a general rule, when should the laser rangefinder be placed in first or last return? What happens when the tank is in emergency mode as opposed to normal mode? The master gunner knows.

The master gunner has the answers to all these questions and more because he has been trained to the highest standard at the Master Gunner School. When used properly, the master gunner is more than just a glorified land and ammo noncommissioned officer; he is a subject-matter expert. Incorporating the master gunner into unit maintenance training will improve unit readiness and assist a unit in being the most lethal on the battlefield.

SFC EDWARD ROSENDALE
316th Cavalry Brigade
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Acronym Quick-Scan

AAC – armament accuracy check

The Lost Art of Intelligence Preparation of the Battlefield

by MAJ Joseph Byerly and CPT Brian Harris

Proper planning for combat operations at all levels of command is vital. While adaptability within the execution phase can overcome various challenges, proper planning can reduce or eliminate some of these roadblocks before the mission commences. As Cavalry Leader's Course (CLC) instructors, the authors have noticed several trends regarding lack of mission analysis, specifically intelligence preparation of the battlefield (IPB), as leaders plan operations. This article will address the most commonly identified issues with the hopes of educating current and future company-level leaders as they prepare their units for the complex battlefields of the future.

Lack of IPB

IPB is the cornerstone on which our friendly course of action (CoA) is built. Failure to properly conduct IPB can result in mission failure or increased casualties. Field Manual (FM) 2-01.3, ***Intelligence Preparation of the Battlefield***, contains the fundamentals regarding proper mission analysis for commanders and their staffs. While a valuable resource for battalion-and-above level staffs, company commanders must also execute mission analysis as outlined within the manual.

It is important to note that the absence of a staff at the company level does not relieve the commander's responsibility to plan and resource his unit the same way a higher headquarters staff does. Company-sized elements do not require a staff, as the unit's size is within the commander's span of control; that is, one person can effectively manage the unit without the addition of a staff. The result is the commander's requirement to function as his own staff. While the company first sergeant and executive officer assist the commander in planning, these individuals do not comprise the commander's staff at the company level, no more so than the battalion executive officer and command sergeant major function as the battalion staff.

Product development: wasted time or value added?

"I think I ran out of planning time because I was trying to get my MCOO perfect." –multiple CLC students

The U.S. military is on the cutting edge of technology and looks for ways to enhance its capabilities through use of the latest in visual systems and simulation. While these are effective in enabling leaders to visualize and describe elements of a plan to subordinates, leaders must evaluate the cost against the reward when developing briefing products. Leaders cannot focus on products for display at the expense of a properly developed plan.

At company/troop level, leaders who spend time creating products to display their analysis generally find that analysis to be devoid of real substance and relegated to "covering the bases," as opposed to adding value to the planning process. The result is, of course, time wasted on briefing products with little practical application for execution. The most common product to drain a student's time in CLC is development of the modified combined obstacle overlay (MCOO).

FM 2-01.3 states, "[T]he MCOO provides the basis for identifying air and ground avenues of approach and mobility corridors. It integrates into one overlay all obstacles to movement. … The MCOO depicts the terrain according to mobility classification." In other words, the MCOO is a product created during mission analysis that assists planners in depicting the effects of terrain in a single source document. It allows all participants to be "on the same page" with regard to their understanding of the terrain – as opposed to their independent assessment of the map and topography sources. However, the MCOO is not intended as a briefing tool, nor should it detract from planning through time spent on its development.

A well-done MCOO will not guarantee mission success, nor does a poorly done MCOO mean the plan is doomed to fail. At company level, leaders typically operate in a time-constrained environment. Leaders must focus their efforts on what gets them the most return on their investment. The likelihood of a well-developed MCOO being shown in a brief, or having a dramatic effect on the execution of mission tasks by subordinates, is low. Instead, leaders must use their time wisely. Evaluation of available maps, satellite imagery and other topography resources, coupled with understanding of friendly and enemy capabilities, will enable the leader to plan effectively without wasted time on slides and unnecessary map overlays.

Key terrain

"If everything is important, than nothing is." –Pat Lencioni

Key terrain, as defined by Joint Publication 2-01.3, is any locality or area whose seizure, retention or control affords a marked advantage to either combatant. Not every mountaintop, tall structure or government building, however, is key terrain. Leaders at all levels must take time to ***study*** the map to determine what is and isn't key terrain based on their mission, the enemy's capabilities and the characteristics of the terrain itself.

Key terrain varies by echelon. Terrain that may not give a marked advantage to a battalion might be key for a company. Also, because company commanders should plan the enemy's disposition two levels down, there might be terrain that gives a squad-sized element a marked advantage that wasn't identified by the battalion staff. While commanders should let subordinate leaders know what higher headquarters considers key terrain, they should also develop their own within the scope of their operation.

Failure to evaluate the threat

"Know [your] enemy and know yourself; in a hundred battles you will never be in peril." –Sun Tzu

Leaders must understand the threat and evaluate its capabilities, intent and possible actions. The rote memorization of threat weapons system ranges does not constitute a complete evaluation of the enemy. Without analysis of where the enemy plans to position his weapons systems or to focus his combat power, such knowledge is nearly useless. Leaders must assess the enemy in total to effectively develop his tactical plan.

FM 2-01.3 states that enemy analysis must be conducted two echelons down. This means the commander cannot simply reissue his higher headquarters' analysis as his own. He must further refine the enemy situational template to the squad/section level. This level of detail allows for a greater allocation of company organic and supporting assets, providing overmatch to the company. Simple analyses of enemy platoon locations at the company level do not provide focus for the commander to employ combat power.

Developing 1 CoA

"History repeatedly demonstrates that the threat/adversary often surprises those who predict only one [CoA]." – FM 2-01.3

Commanders must develop enemy CoAs based on a combination of his understanding of the enemy's capabilities and intent, coupled with his own tactical experience and knowledge. Multiple CoAs are essential for commanders to properly plan for enemy reactions to friendly actions. Too often junior officers expect the enemy to operate in a singular manner, with limited reaction expected. At the same time, however, these same officers will expand on their own "adaptability" and claim they will be able to react quickly to changes on the battlefield in a fluid manner. Will the enemy commander not also attempt to adapt to friendly actions? By discounting the enemy's ability to conduct multiple CoAs and having more than one option, the commander can create a false sense of security concerning his own plan's effectiveness.

By considering multiple CoAs, the commander can further prepare for enemy reactions, as well as the differing possibilities of initial disposition. Analysis of only one enemy array prevents preparation, limits reconnaissance focus and places the burden of reaction on the subordinate leaders. Contrarily, by assessing multiple CoAs, the friendly commander can employ his organic and supporting elements in a manner that allows greater flexibility once contact is made. It enables the commander to quickly shift combat power and seize the initiative upon making contact vs. focusing on one enemy template and reacting to unexpected contact. In essence, assessing multiple enemy CoAs enhances a commander's ability to adapt; he has already considered the "what ifs" and can rapidly shift forces in response to enemy actions.

Conclusion

The importance of mission analysis cannot be overstated. Without proper assessment of the terrain and weather, a leader cannot maximize his organic and supporting assets capabilities. Without analysis of the enemy, both capabilities and intent, a leader cannot position his forces quickly and risks granting his opponent the initiative. Failure to consider multiple enemy CoAs is to embrace ambiguity at a dangerous level and risks mission failure and catastrophic loss to friendly forces. The enemy can and will attempt to outmaneuver friendly forces. Leaders must anticipate these actions and leverage friendly capabilities quickly. Proper enemy analysis shortens the reaction time and enables leaders to maintain the initiative in contact.

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CPT Brian Harris is course manager/instructor for CLC, 3-16 Cavalry, Fort Benning. He previously served as commander, A Troop, 1-17 Cavalry, 82nd Airborne Division, Fort Bragg, NC; assistant S-3 plans officer and tactical operations officer/pilot-in-command, B Troop, 1-17 Cavalry; and mortar-platoon leader, HHC, 2-72 Armored Regiment, 2nd Infantry Division, Camp Casey, South Korea. CPT Harris' military education includes Pathfinder School, Airborne Course, CLC, Aviation Captains' Career Course, Joint Firepower Course, Army Aviation Tactical Operations Officer Course, Aviation Warrant Officer Basic Course, Initial Entry Rotary Wing Course/OH-58D FSXXI Course and Armor Officer Basic Course. He holds a bachelor's of arts degree in history from University of Central Florida and is a recipient of the Bronze Star Medal, Purple Heart and four Air Medals.

Acronym Quick-Scan

CLC – Cavalry Leader's Course
CoA – course of action
FM – field manual
IPB – intelligence preparation of the battlefield
MCOO – modified combined obstacle overlay

The Armored Brigade Combat Team 2014-2024: Improving Abrams Lethality

by MAJ Robert Brown

The primary mission of the M1A2 System Enhancement Package (SEP) v2 Abrams main battle tank (MBT) is to provide mobile, protected firepower for combined-arms maneuver and wide-area security. The Abrams must be capable of engaging the enemy in any weather, day or night, on the multi-dimensional, non-linear battlefield using firepower, maneuver and shock effect.

An increasing array of threat tactics and weapons – including advanced explosive reactive armor (AERA), Active Protection Systems (APS) and improvised explosive devices – necessitate continual improvement to the Abrams platform so it can meet this mission.

For current and recent operations, the Abrams underwent many upgrades and configuration changes in response to evolving threats. Upgrades like the Tank Urban Survivability Kit (TUSK) – which includes advanced reactive armor, upgraded belly armor and crew armored gunshields – greatly enhanced platform survivability, especially in the complex urban terrain prevalent in Iraq.

However, in response to requirements for 2014-2024, the Abrams' lethality must continue to be improved. This improvement in lethality for the Abrams M1A2 SEPv3 will derive from the combination of developmental upgrades and the addition of mature technologies that include the Ammunition DataLink (ADL), improved 120mm ammunition, Improved Forward-Looking Infrared (IFLIR) and the low-profile (LP) Common Remotely Operated Weapon System (CROWS).

Improved 120mm ammunition

The M829E4 (soon to be type-classified as the M829A4) is the fifth-generation kinetic-energy anti-tank (AT) round. This new round provides heavy-armor defeat capability at extended ranges. It uses a depleted-uranium penetrator and anti-armor design advancements to defeat threat targets equipped with AERA and APS.

The advanced multi-purpose (AMP) round is a line-of-sight munition with three modes of operation: point detonate, delay and airburst. This essential capability required in urban environments allows the tank crew to defeat AT guided-missile teams at ranges of 50 to 2,000 meters with a precision lethal airburst. The point-detonate and delay modes allow for obstacle reduction (OR), bunker defeat and a wall-breach capability for dismounted infantry. The AMP round also reduces the logistics burden by replacing four existing rounds (M830 high-explosive (HE) AT, M803A1 multipurpose HEAT, M1028 canister and M908 HE-OR).

ADL

These enhanced munitions rely on the ADL to provide communications with the platform's fire-control system. The ADL consists of a modified breech-block, upgraded Improved Fire-Control Electronics Unit and upgraded Abrams

tank software.

IFLIR

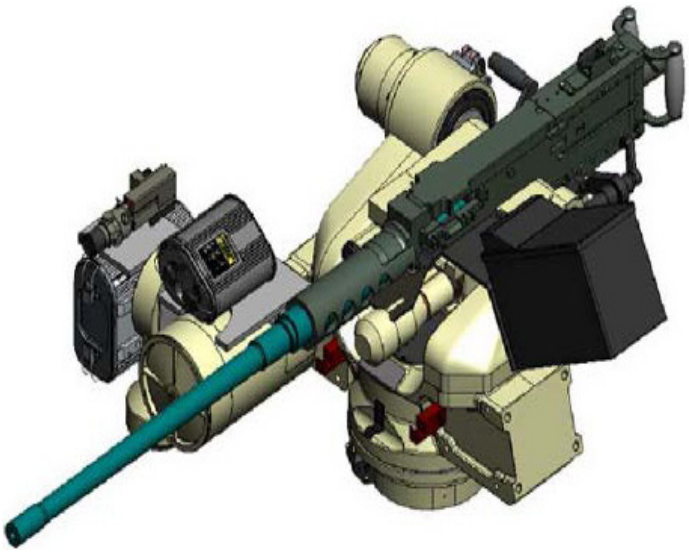
The ability to identify targets prior to engagement remains one of the biggest obstacles to improving Abrams lethality. The new IFLIR solves this problem using long- and mid-wave infrared technology in both the gunner's primary sight and the commander's independent thermal viewer. The IFLIR will provide four fields of view (FOV) displayed on high-definition displays, greatly improving target acquisition, identification and engagement times – compared to the current second-generation FLIR – under all conditions, including fog / obscurants.

LP CROWS

The Abrams' lethality is further improved through a product improvement to LP CROWS. This effort improves the tank commander's situational awareness without compromising capability. LP CROWS significantly lowers the profile of the weapon station, returning both open- and closed-hatch FOV. Also, LP CROWS will be equipped with an upgraded day camera that uses picture-in-picture technology to combine different FOVs, and it offers a 340 percent larger scene in the wide FOV.

The Army's strategy for modernizing the Abrams fleet revolves around incrementally upgrading aspects of the platform through a combination of technological insertion and product improvements based on evolving threats and available technologies. The advances in Abrams lethality stem from a synergistic combination of technological efforts. The IFLIR will enable early and accurate target detection and identification. Once identified, the crew can then engage those targets with either of the two new enhanced rounds via the ADL with a high probability of hit / kill.

Recent and continued upgrades to the Abrams MBT will ensure the armored force maintains overmatch and battlefield dominance for the near future. The M1A2 SEPv3 will provide future armored formations an unmatched combination of lethality, mobility and survivability.



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Acronym Quick-Scan

ADL – Ammunition DataLink
AERA – advanced explosive reactive armor
AMP – advanced multi-purpose
APS – Active Protection Systems
AT – anti-tank
CROWS – Common Remotely Operated Weapon System
FOV – fields of view
HE – high explosive
HEAT – high-explosive anti-tank
IFLIR – Improved Forward-Looking Infrared
LP – low profile
MBT – main battle tank
OR – obstacle reduction
SEP – System Enhancement Package
TRADOC – (U.S. Army) Training and Doctrine Command

Integrating Live, Virtual, Constructive Enablers:

U.S. Army in Europe's Ability to Create a Blended Training Environment

by Bradley Joy, Edward Rykard and LTC Andrew L. Green

When U.S. Army Europe (USAREUR) conducted a unique squadron-level live-fire exercise (LFX) in support of 2nd Cavalry Regiment (CR) in November 2012, the LFX's blended training environment combined live, virtual, constructive and gaming (LVC-G) training enablers to provide multi-echelon training from the individual Soldier to the squadron commander and staff. This blending of simulation with live training produced a one-of-a-kind training event that has implications for future training.

The LFX's training environment was a temporary low-cost solution before USAREUR's scheduled fielding of the live, virtual, constructive-integrating architecture (LVC-IA). Planners from 7th Army's Joint Multinational Training Command (JMTC) in Grafenwoehr, Germany – which is USAREUR's training command – designed the environment. JMTC planners also developed a scenario that replicated operational variables from the Caucasus Region in coordination with JMTC's subordinate element, the Joint Multinational Readiness Center (JMRC), and 2CR planners. The scenario was a continuation of what 2CR experienced the month before during its decisive-action training environment (DATE) rotation at JMRC, the Army's only overseas combat maneuver training center.

The 2CR LFX blended training environment addressed home-station training concepts to help provide a more engaging and challenging training environment over traditional live-fire "gunnery" exercises. First, the creation of an expanded training environment in time and space allowed multi-echelon training and the ability to exercise squadron-level collective-training objectives that otherwise would not have been possible. Second, the LFX provided a consistent and reproducible training environment to exercise mission command. The LFX integrated and leveraged virtual, constructive and gaming capabilities of the Joint Multinational Simulation Center (JMSC) with the live capabilities of JMTC's Grafenwoehr Range Operations to achieve this initial step toward an integrated architecture that the integrated training environment will bring.

So what was unique about the USAREUR LFX? Simply put, the LFX demonstrated the capability to leverage current LVC-G capabilities into a synchronized exercise environment to support the integration of multiple echelons above the individual Soldier through the battalion command-post (CP) level, which becomes extremely important as we transition to a home-station-deployment master training plan with less funding.

Exercise background

Once the JMTC commander agreed to support 2CR's LFX by using JMTC's LVC-G enablers to employ a continuation of the DATE scenario that JMRC had developed, planning and execution of this exercise integrated not only JMTC capabilities but also those from the 2CR. The 2CR provided the training objectives (Figure 1) and developed an aggressive execution timeline coming on the heels of its DATE rotation to take advantage of lessons-learned.

Each squadron rotated through the training environment over the course of four days (Figure 2). Day 1 began with troop-leading procedures. Each day's activities built on the previous day, culminating on Day 4 with the live gunnery phase. Day 2 ("sim" day) allowed squadron leadership from the squadron tactical CP down to Stryker vehicle commanders, drivers and gunners to rehearse the LFX using Virtual Battlespace 2 (VBS2). The "dry" day was a full squadron rehearsal with all squadron Soldiers executing their tasks in the full exercise environment but without live ammunition. The final day for each squadron was the complete LFX with live ammunition, ending with troop- and squadron-level after-action reviews (AARs).

The DATE scenario that JMRC developed based on U.S. Army Training and Doctrine Command's Intelligence Support Activity (G-2 Threats)'s final-draft document, "Full-Spectrum Training Environment" (dated February 2011), was expanded by 2CR planners to include the Grafenwoehr Training Area (GTA) and to place the squadron's commanders and staff into the com-

Conduct command and control (ART 5.0)
- Execute the operations process

Conduct security operations (ART 6.7.3)
- Conduct a screen
- Conduct a guard
- Conduct battle handover (4th and 2nd squadrons)

Conduct defensive operations (ART 7.2)
- Employ lethal fires in support of the brigade
- Synch close air support (battalion)

Employ fires (ART 3.0)
- Provide fire support
- Apply lessons learned from collective training during DATE rotation

Figure 1. 2nd Cavalry Regiment training objectives.

					Community road closure					
	31 (We)	1 (Th)	2 (Fr)	3 (Sa)	4 (Su)	5 (Mo)	6 (Tu)	7 (We)	8 (Th)	9 (Fr)
4th Squadron	Regiment After-action Report	All Saints Day and USAREUR Change of Command	TLP	Sim	Dry	Live	OCD	OCL		Veteran's Day Weekend
1st Squadron				TLP	Sim	Dry	Live	OCD	OCL	
2nd Squadron				TLP	OCD	OCL/Sim	Dry	Live		
3rd Squadron					TLP	OCD	OCL/Sim	Dry	Live	

Figure 2. The 2nd Cavalry Regiment's exercise execution timeline.

ENEMY MISSION: 113 Mech BTG conducts movement to contact IOT seize key road/ rail junctions in eastern Yevlakh Province IOT control local hydrocarbon resources and prevent reinforcement between Gorgas and Baku Axis. SAPA forces provide recon support and local area defenses in populated areas along 113 BTG AAs to support ACF movement to contact.

113 Mech BTG

T: Conduct movement to contact
P: Defeat 2CR forces in Yevlakh Province and seize key LOCs (FREIHUNG) between Gorgas and Baku

11 Recon Battalion

T: Conduct **area reconnaissance**
P: Provide early warning and situational awareness for 113 BTG movement to contact
Endstate: 2CR forces defeated in Yevlakh Province / GATR expelled from key population areas / ACF control key road / rail junctions in eastern Yevlakh

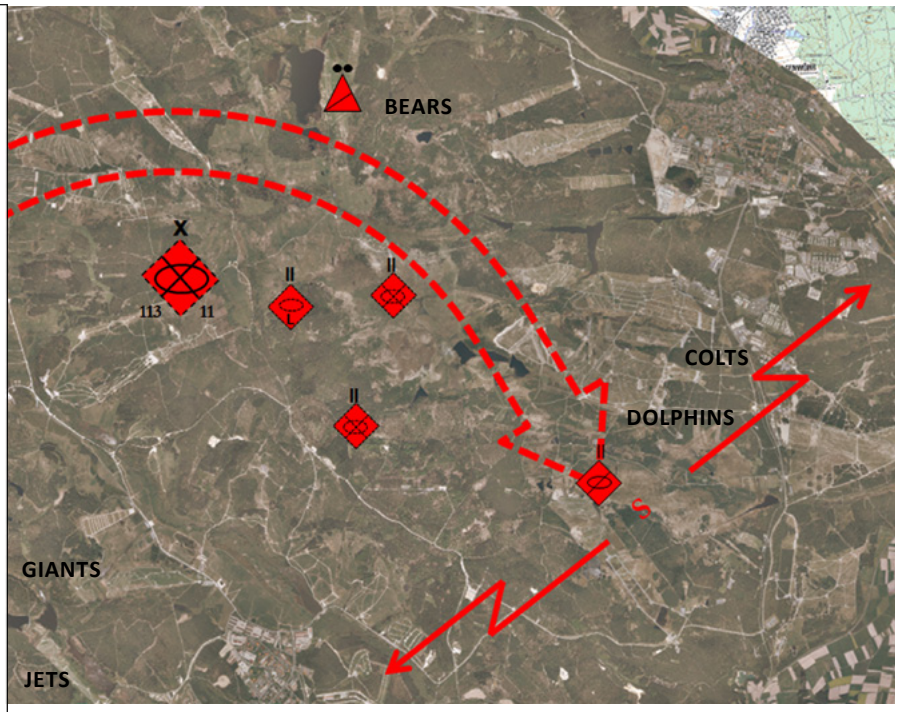
Decisive Operations: 113 BTG conducts movement to contact w/2 X Mech Inf Battalion along northern AA. Main body attacks to seize FREIHUNG LOV IVO OBJ COLTS and DOLPHINS or IVO OBJ EAGLES.

Shaping Operation 1: 1 X Mech Inf Battalion (Recon) flank screen along southern AA

Shaping Operation 2: SAPA conducts local area defense in population centers along AA1 and AA2 IOT FIX 2CR in eastern Yevlakh

Reserve: 1 X light tank battalion (T-63) acts as exploitation force along AA1 after penetration is achieved

Scheme of Fires: 113 Artillery Battalion suppressed IVO Nurnberg; organic 2S9 provide support to troops in contact.



SAPA

T: DEFEND

P: IOT FIX 2 CR forces in eastern Yevlakh prevent 2CR penetration into central Yevlakh Province

SJ

T: Attack to expel

P: IOT deny 2CR / GATR access to human terrain through use of suicide attacks, complex IED events, harassing SAF engagements and intimidation of population.

Figure 3. Enemy's most likely CoA.

plex Caspian Sea environment.

The 2CR and JMTC partnered to control the LFX. COL Keith Barclay, 2CR commander, was the senior trainer. The rest of the exercise control (EXCON) cell worked to establish the operating environment as well as command and control (C2) of the live ranges. There were four main control elements within the higher control: 2CR current operations, scenario control, range operations and simulation control.

The 2CR current-operations cell consisted of 2CR Soldiers that replicated all the activities of elements that were

higher, adjacent, lower, supporting and supported to the squadron conducting the LFX. This included two live field-artillery batteries from 2CR's fires squadron as well as constructive units in simulation.

The 2CR and JMSC personnel made up the scenario-control cell, whose primary task was to maintain overwatch of all forces replicated – enemy and friendly forces – to ensure the squadron's training objectives were being met.

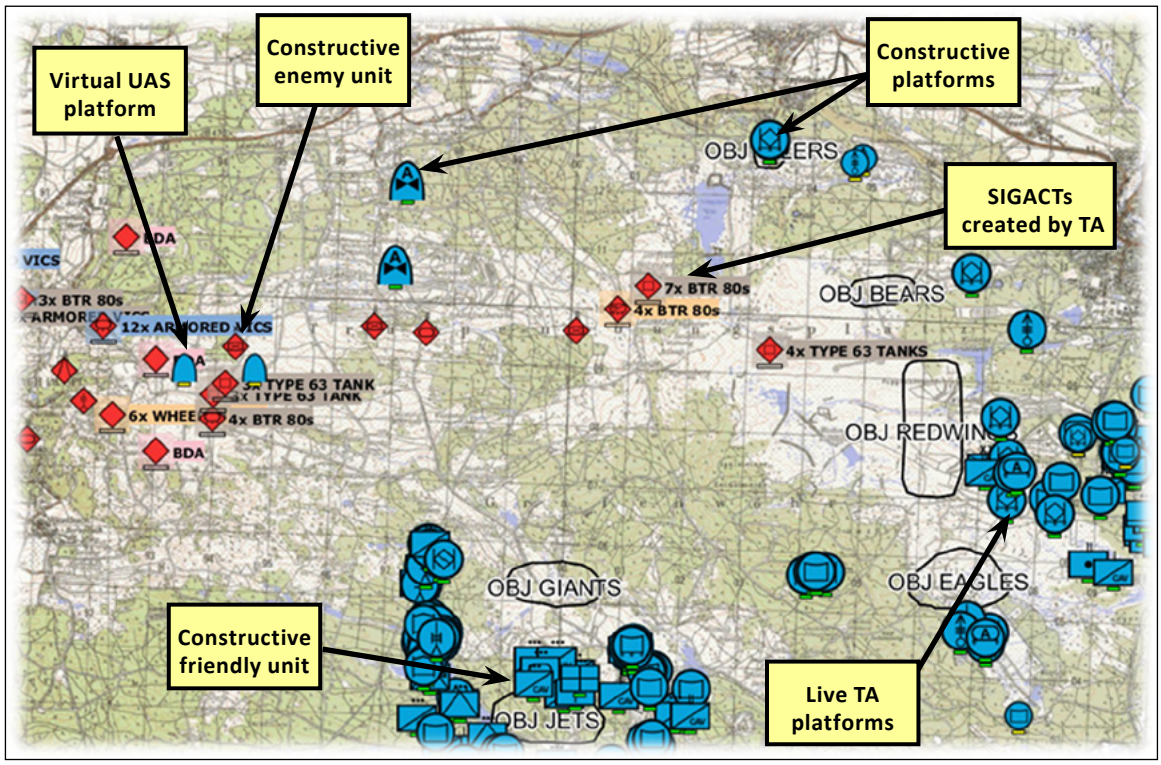


Figure 4. The 2nd Cavalry Regiment live-fire blended CTP. *(CTP taken from a squadron tactical battle command (TBC) client)*

The simulation-control cell focused on the constructive and virtual enablers, along with mission-command systems (MCSs), that provided the "wrap-around" common tactical picture (CTP) viewed by 2CR's CP.

Creating a blended training environment

The integration of LVC enablers into the LFX served three main purposes:

- First, it ensured the replicated training environment met the commander's training objectives.
- Second, the wrap-around simulation provided commanders and staffs with an expanded operating environment that ensured higher, adjacent, supporting and supported roles are addressed within the exercise.
- Third, enhanced simulation wraparound improves commander and staff understanding and visualization and facilitates development of a more accurate CTP by using MCSs and processes.

The blended LVC training environment created by 2CR and JMTC is depicted in Figure 4.

Gaming

Creating the right training environment for 2CR began with Day 2 simulation rehearsal and Army Games for Training enablers. Over the course of the LFX simulation days, 571 2CR Soldiers from 12 troops used JMSC's (specifically, the Model and Simulation Division's Tactical Gaming Branch) primary Army Games for Training enabler, VBS2.

The simulation days' purpose was to conduct crew-coordination drills for vehicle commanders, drivers and gunners as well as C2 tasks by the squadron TAC. Soldiers were able to refine their necessary skillsets in a virtual environment that replicated GTA (geo-specific VBS2 terrain). Soldiers received training on VBS2 and then conducted a mini-exercise before engaging in their assigned mission.

Soldiers were outfitted with their virtual Stryker variant and allowed to maneuver on GTA-specific terrain (Ranges 112, 117, 118, 132 and 312). They engaged a mix of live, virtual enemies as well as pop-up targets. C2 of maneuvering elements was achieved using Force XXI Battle Command Brigade and Below (FBCB2) and frequency-modulation radio communications. VBS2 through Simulation-C4I Interchange Module for Plans, Logistics and Exercises (SIMPLE) provided Stryker platform position reports to FBCB2.

Tactical Gaming Branch, led by Ed Rykard, supported the simulation days using two VBS2 license managers, nine VBS2 dedicated servers, 22 VBS2 administrator machines, 184 VBS2 client workstations, 49 FBCB2 "white boxes" and one SIMPLE system, all interconnected running one scenario.

"Making it real": developing live-fire portion

To add the live-fire portion of the blended training exercise, JMTC's live-fire training and range-operations staff worked with 2CR planners to create enough live-fire range space on GTA for an entire Stryker squadron to train simultaneously. The 2CR commander did not want to use the traditional west side of GTA's ranges (the Range 301 Multi-purpose Range Complex and Range 201) but envisioned linking six ranges together on GTA's east side to enable four to five Stryker

troops to simultaneously engage targets. While this design provided a more doctrinally realistic squadron frontage of nine kilometers, it added complexity to C2 of the ranges and linkage of the range targetry to digital feeds to create a believable scenario.

After scheduling and de-conflicting range space, the live-fire development team worked hand-in-hand with JMSC scenario planners to determine the replicated-to-real enemy transition point, and the timing and control of the multi-range target set. Each range's targetry was hand-selected to match the envisioned enemy situational template, or ensitemp, and to ensure multi-range safety. The 2CR's commander also wanted each troop to be able to fire its organic mortars as well as enable firing the squadron's tube-launched, optically tracked, wire-guided anti-tank missile systems and Mobile Gun Systems.

Selecting and proofing firing positions for each squadron's complement of weapons, as well as developing the system for targetry control and synchronization, took the Maneuver Branch team two months from conception to final proofed plan with combined range-surface danger-zone packets. The final target package was then given to JMSC to link the VBS2 gaming rehearsal to the actual terrain and enemy that 2CR Soldiers would see during the live-fire portion.

Virtual and constructive

To meet 2CR's training objectives, JMSC provided a near-real-time CTP to the squadron CPs. Virtual (Multiple Unified Simulation Environment, or MUSE) and constructive (Joint Conflict and Tactical Situation, or JCATS) tools were used along with 2CR live FBCB2 (terrestrial-based) systems to create the CTP on the training audience's MCS. JMSC simulation and exercise planners leveraged LVC tools to create the exercise technical construct in Figure 5, which depicts the linkage among LVC domains simulating the squadron's MCSs (FBCB2, TBC).

JCATS provided the high-fidelity expanded training environment for the friendly forces wraparound as well as the enemy units depicted in the enemy course-of-action (CoA) diagram on Page 13. This enabled the squadron's commanders and staffs during the operations process to visualize the operational environment and to better see themselves through the regiment's unit and platform message feeds to TBC clients and FBCB2. Also, JCATS was able to easily depict enemy formations in time and space and was the source of two intelligence feeds to the squadron's CPs.

First, JCATS through SIMPLE and the regiment's mission-command servers provided a replicated top-down ensitemp. Second, MUSE (virtual enabler) provided full-motion video feeds from a replicated Shadow unmanned aerial system (UAS) displaying the movement

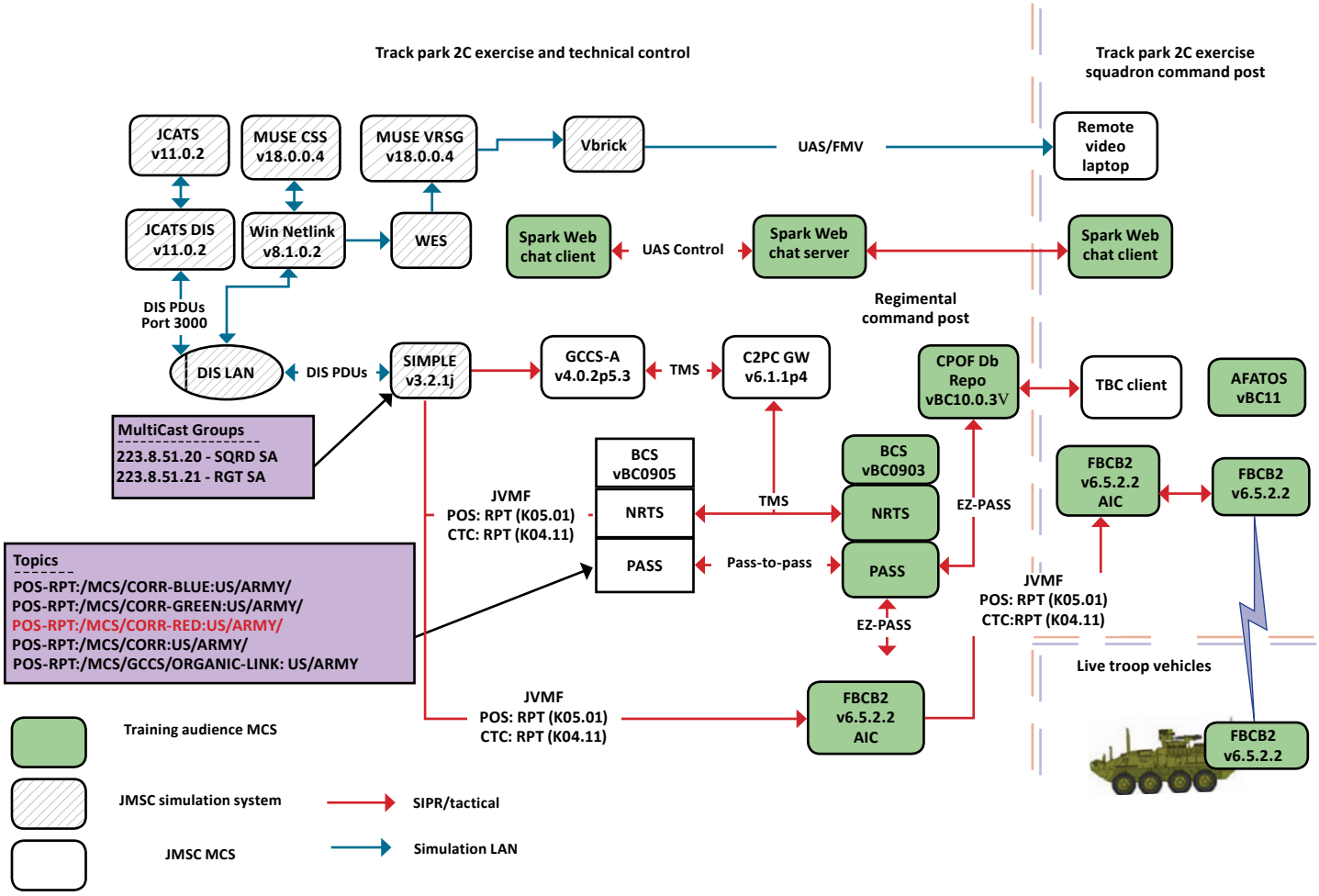


Figure 5. Diagram depicts elements of the LVC simulation to MCS architecture used to create 2CR's CTP.

MUSE	JCATS	SIMPLE
• **Replicated UAS** • **Provided full-motion video in 3D environment** • **Link to common ground station** Line-21 META data CFF	• **Ground replication** • **Ground movement and engagement** • **Rotary wing** • **Missile replication** • **Link to BFT/CPOF** OTH:GOLD POS:RPT	• **Translates simulation message protocols into USMTF message formats for mission-command systems**

Figure 6. Simulations models used.

BCS	TBC/CPOF	FBCB2
• **Server stack that centralizes software capabilities** • **Publish and subscribe services** MS Exchange server MS SharePoint	• **Supports mission-command WfF** • **Provides situational awareness and collaborative tools to support decision-making** • **Displays as common operation/tactical picture**	• **Supports mission-command WfF** • **Provides near-real-time mission-command information on the move** Displays platform location data Distributes mission orders and graphics
AFATDS		***GCCS-A**
• **Supports Army's fires WfF** • **Army's link with Air Force for A2C2**		• **Provides common operational picture at combatant command and JTF level** • **Provides ground, surface and air track data** **Provided by JMSC*

Figure 7. Mission-command systems.

of JCATS enemy systems through named areas of interest and into the engagement areas. Each squadron S-2 had to go through the proper planning process to schedule and use the Shadow UAS. Control of the Shadow was achieved through chat services to Soldiers from the UAS platoon controlling the flight plan and payload of the virtual Shadow UAS.

Control

To ensure the squadron's training objectives were met, control of enemy movement and synchronization with range-based live targets fell to a group comprised of Soldiers from 2CR, JMTC range operations and JMSC staff in the EXCON cell. This group used an execution matrix that CPT James Gibbs, 2CR S-3 Plans, developed to ensure this occurred. The execution matrix allowed the EXCON cell to not only control movement of enemy forces but also to make adjustments within the JCATS simulation and live-target presentation sequence based on training audience actions / reactions.

The GTA live-fire training team staff – in addition to the normal control team of target operator, range officer in charge and range safety officer – operated each of the six range towers. The GTA range safety chief, CPT Chris Arnold, in coordination with the other EXCON team leads, synchronized the ranges over the GTA range net with the ensitemp's arrival and developed bands of targets in harmony with the execution matrix. The effect for the training unit was a seamless transition from digitally tracked enemy to visually observable targets for the live fire.

The higher-control cell made spot reports and significant-activity entries into FBCB2 and TBC clients to further develop the CTP the squadron CPs viewed. Soldiers were in place to provide the normal interaction between the squadron CP and its higher headquarters, 2CR.

The EXCON cell provided the proper amount of detail at the right time to meet the commander's training objectives. The total EXCON cell consisted of 53 Soldiers, Department of the Army civilians and contractors. With about 700 Soldiers participating in each phase of the LFX, there was roughly a 13:1 ratio of training personnel to support personnel. This demonstrated through effective exercise design that a streamlined, cost-effective expanded training environment can be achieved.

During 4-2 CR's AAR, the 4-2 CR executive officer commented that "the squadron staff did a better job when they were able to interface with their higher headquarters and [were] placed in the environment built for the LFX beyond live units occupying ranges."

Implications for future training

As the Army begins fielding LVC-IA and USAREUR prepares for the transition,

small changes now in training paradigms and use of current training enablers can impact LFXs and home-station training. LVC-IA is not a replacement for live training, and this solution is not, either. It is not only a way to enhance live training, it is also a way to help commanders and their staffs achieve a higher level of proficiency and become better prepared after completing live training.

The LFX developed by JMTC and 2CR capitalized on available resources and designed an environment to meet the needs of the squadron training audience. Because of budgetary restrictions and personnel constraints, training centers cannot allocate a large amount of resources to build training exercises. However, if training centers use technology and simulations, this makes it more efficient and effective to allocate training resources to leverage LVC capabilities into a synchronized exercise environment that can support integration of multiple echelons – individual Soldiers or squadron CPs and higher.

JMTC's unique structure lends itself to building a cohesive team and having a shared understanding to quickly design, plan and execute exercises of this type. All LVC-G enablers to support the LFX reside in and are controlled directly by JMTC.

Conclusion

Soldiers and leaders from 2CR trained in the LFX exercise construct by using LVC-G training enablers. The 2CR's subordinate squadrons moved from a challenging DATE rotation at JMRC and transitioned straight into the LFX gunnery conducting defensive operations in an expanded training environment. The JMTC team learned a great deal and will use these lessons for further development of more efficient and innovative ways to train USAREUR units in the future.

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Edward Rykard, a retired Air Force crew chief (C-141, C-5 and C-17), is chief of tactical gaming at JMSC, Grafenwoehr, and has led tactical gaming since its inception in 2009. He holds a bachelor's of science degree from Embry-Riddle Aeronautical University in professional aeronautics. He is also a member of the JMSC team that won the 2010 Army Modeling and Simulation Award for Army-wide team intelligence training.

Acronym Quick-Scan

AAR – after-action review
C2 – command and control
CoA – course of action
CP – command post
CR – cavalry regiment
CTP – common tactical picture
DATE – decisive-action training environment
Ensitemp – enemy situational template
EXCON – exercise control
FBCB2 – Force XXI Battle Command Brigade and Below
GTA – Grafenwoehr Training Area
JCATS – Joint Conflict and Tactical Situation
JMRC – Joint Multinational Readiness Center
JMSC – Joint Multinational Simulation Center
JMTC – Joint Multinational Training Command
LFX – live-fire exercise
LVC – live, virtual and constructive
LVC-G – live, virtual, constructive and gaming
LVC-IA – live, virtual, constructive-integrating architecture
MCS – mission-command system
MUSE – Multiple Unified Simulation Environment
SIMPLE – Simulation-C4/Interchange Module for Plans, Logistics and Exercises
TAC – brigade tactical command post
TBC – tactical battle command
UAS – unmanned aerial system
USAREUR – U.S. Army Europe
VBS2 – Virtual Battlespace 2

Cross-Domain Concepts of the Malaya Campaign

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

History may well find January 2012 as a watershed moment in the evolution of American strategic thought. The Department of Defense planning guidance for that year signaled both a shift to the Pacific as a theater of focus and the realignment of budgetary resources needed to implement this new vision.[1,2] Supporting this top-level guidance was the release, also in January 2012, of the Joint Operational Access Concept (JOAC) to address the challenges of emerging anti-access and area-denial capabilities along the Asian rimlands.

Following up, the Army and Marine Corps issued a joint concept paper in March 2012 dealing with gaining and maintaining access within the constructs of this new planning guidance. The fundamental theme for this new approach was the idea that cross-domain synergy would provide increased capability beyond the mere additive of combat power provided from the introduction of more units into the force mix.[3]

Domains are those dimensions of conflict, often thought of as the purview of selected services, in which opposing forces contest each other to assert their will and operational construct on their enemy to secure a desired end-state. These domains include land, maritime, air, space and cyberspace. This new approach uses advantages in one domain to offset shortfalls in another to complicate the opponent's ability to focus combat capability.

The purpose of this article is to review a historical example of how such interaction can support joint campaign objectives. While not including the domains of space and cyberspace, the Japanese opening moves of the Battle for Malaya (now Malaysia) are instructive as to the potential of this approach.

Terrain a factor

As with all military campaigns conducted ashore, terrain was a pivotal factor around which opposing strategies were formulated. During the 1920s, the British viewed the jungle-covered mountains that ran the length of Malaya as a barrier that would force any attacker to land directly on the island of Singapore.[4] However, the economic development of the Malay Peninsula's natural resources served to open routes through this barrier as rubber plantations and tin mines linked together. A road and rail network was forged down the west side

Figure 1. The British believed the terrain of neighboring Malaysia would force the Japanese to land on the island of Singapore. *(Map from **CIA World Factbook**)*

Figure 2. The British presumed that the mountains of Malaysia (current country indicated in cream color) would be a barrier to the Japanese. *(Map from **CIA World Factbook**)*

of the country that could support large-scale military movement.[5] Thus, the progressive development of the country's transportation system began to undermine a key assumption on the defense of Britain's naval base in the Far East.

Running the length of Malaya is a high mountain range that compartmentalizes the country into two parts. One of the reasons most of the cultural settlement occurred on the west side of this range was that the height of these mountains – 7,000 feet in some places – shielded the region from the monsoon rains coming in from the South China Sea.[6] The drainage requirements for this large volume of water could significantly affect any military campaign. Lateral movement out of a beachhead, and hence up or down the coast, required crossing many gaps at each point where the water reaches the sea. The Japanese had identified no less than 250 bridges that would have to be captured intact, or rebuilt, if they were to sustain a drive to Singapore.[7] This requirement would influence the organization and tactics of GEN Tomoyuki Yamashita's 25th Army, which was assigned to capture the British naval base at Singapore.

The last terrain feature that would affect the campaign, especially in the opening stages of the amphibious landings, was manmade. The Malaya-Thai border was to provide an undefended zone north of Malaya from which the Japanese could strike down the west coast.[8] If they were able to get ashore at Singora and Patani, the road network would support a converging move on the Muda River. The British also came to this conclusion and attempted to develop an opening strategy to counter Japanese plans without violating Thailand's borders prior to hostilities.

The British command viewed the neutral status of Thailand as a parallel to Belgium in Western Europe and as such drew a similar response. To retain the east flank of the Jitra position, once Japanese landings were detected at Patani, it was envisioned that Commonwealth of Nations forces would move into Thailand and secure defensible terrain. The area where the road rises off the coastal plain south of Patani was known as "the ledge" and became the objective of a spoiler operation call Matador.[9] This thrust to gain defensive terrain reveals the strategic intent of the Malayan command, which was to delay down the length of the peninsula until reinforcements could recover the battle.

The long littoral flank of the Malaya Peninsula further complicated Commonwealth deployment. The threat of a landing to the rear of troops delaying in the north forced the British to defend the length of the country. At the start of the war, the 3rd Indian Corps was assigned the north, east and center approaches. The 8th Australian Division held Johore in the south. Singapore was defended by a fortress garrison. Lastly, the 12th Indian Brigade was positioned at Port Dickson as a reserve.[10] The influence of seaborne landings prevented the British from massing their force at the expected point of contact in the north. This inherent maritime mobility is an example of cross-domain influence that complicated the landward dispositions of the defense.

Japanese tactics

Under the command of COL Toshiro Hayashi, a special Japanese staff section, later named the Taiwan Army Research Section, was established to study the requirements of tropical warfare. Analyzing geography, climate, unit structure and the diverse populations in the region, this section developed what training was necessary to prepare for the conflict and to validate campaign plans. Joint maneuvers were held, with elements of 5th Division and 5th Air Force group from Manchuria, to test deployment and communications arrangements.[11] In another field exercise, a reinforced infantry battalion landed on Hainan Island. It moved around the circumference of the island, covering 600 miles – or about the distance from Thailand to Singapore – to simulate an advance on the British naval base. The battalion destroyed and repaired bridges, practiced attacks and conducted other tests.[12]

The organization that emerged from these tests was a Japanese combined-arms force built around the infantry. Backed with artillery, tanks and an engineer element, the infantry commander had a force that could move rapidly on roads or infiltrate out to the flank along a jungle-covered route. The presence of engineer units well forward helped retain mobility when obstacles were encountered.[13] The presence of well-trained all-arms teams gave the Japanese commander tactical options his British opponent was unable to counter.

Japanese strategy sought to accomplish three objectives in conquering Singapore: first, isolate the naval base from air reinforcement via India by seizing the Kra Isthmus;[14] second, land at Singora and Patani in Thailand to secure the approaches to the maneuver corridor on the west side of the peninsula; and last, advance down the length of the country, using littoral turning movements when required to secure Singapore. The British anticipated all these events, hence the Japanese did not achieve strategic surprise. However, the speed at which the Japanese were able to operate resulted in tactical shock and provided them the initiative throughout the Malaya Campaign.[15]

Malaya Campaign

Kota Bharu is located at the northeast corner of Malaya at the end of a tenuous rail line that snakes its way across the center of the peninsula. Defending the beaches here was 8th Indian Brigade. Japan's Takumi detachment, 6,000 men of the 56th Infantry Regiment, arrived off the coast at night Dec. 8, 1941, and attempted a landing through six-foot surf. The strong current pulled the boats away from the planned landing area and scattered the assault wave into the teeth of the defenders. This was the only point at which the initial landings would encounter resistance on the ground.[16]

As daylight broke over the beaches, Hudson aircraft were able to strike the transports, scoring a hit on one and damaging several landing craft. The losses off the coast made the naval escort commander want to withdraw, but Takumi refused. As the day wore on, Japanese airpower recovered control of the sky, and troops ashore were able to expand the beachhead by infiltrating through gaps in the line. The appearance of these small bands of infiltrators behind forward beach de-

fenses led to a premature Indian withdrawal and ensured the Takumi detachment made it ashore.[17] Cross-domain success in the air provided a stabilizing influence to secure local landing operations.

In an effort to recover the situation at Kota Bharu, the overall commander in Malaya, LTG A.E. Percival, sent up reserves by rail.[18] This seemed inconsistent with the British strategic design. Dividing his limited combat power of the 3rd Indian Corps on either side of the central mountains diluted his ability to hold on to the main avenue of approach out of Thailand, but Percival must have been influenced by the reports coming out of Kota Bharu that put the size of the enemy landing there as a division.[19] This illustrates that when contact is first established, overestimation of enemy strength is common. By landing on multiple dispersed beaches, coupled with the interdiction of reconnaissance aircraft, the Japanese were able to magnify the confusion and uncertainty during initial contact.

Across the mountains, the Krohcol unit was waiting for orders to execute Matador and move up to defend the ledge. Hesitation in reacting to the Japanese landing and the slow pace of the move resulted in a loss of time that could not be regained.[20] The Japanese were able to put an infantry regiment, reinforced with tanks and artillery, ashore at Patani, and they lost no time in setting out for the ledge. In the encounter battle that followed, Japanese tanks overran the advance guard of the Krohcol unit and forced them over to the defense on ground much less suited for a stand than the ledge.[21] The tenets on which Matador had been planned were coming unhinged.

In the west, the 11th Indian Division, which had been waiting to execute Matador, crossed the Thai border about mid-afternoon. They were able to move 10 miles toward Singora and, together with two Punjabi companies, established a defensive position by dusk. An armored reconnaissance detachment from the Japanese 5th Division found these positions, and the sequence of events that followed would become a familiar scene during the Malaya Campaign. The lead tanks were stopped on the road by accurate fire from Indian anti-tank gun crews. The Japanese then dismounted and worked their way around the enemy's flanks, while mortar fire held the Punjabi companies in place. The British commander elected to withdraw to Jitra, destroying key bridges along the route.[22] Japanese tanks rapidly transitioned to pursuit and prevented the Commonwealth forces from establishing a solid defensive line.

This strategy ended the British presence in Thailand.

While operations were going poorly on the ground for the British, events at sea and in the air proved worse. Of the 110 aircraft available to the Commonwealth when war broke out, only 50 were still functional by nightfall.[23] Force Z, consisting of the *HMS Prince of Wales* and *HMS Repulse*, put to sea under the command of ADM Sir Tom Phillips in an attempt to contest the landings at Singora and Patani. Located by the Japanese, these ships were sunk by torpedo plane attack. With their passing went any chance to counter Japanese moves afloat.[24] Thus, in the early stages of the battle, the Japanese gained control of the air and sea around Malaya. This was coupled with a strong foothold on the north end of the peninsula that provided a point of departure for the move to Singapore.

The Commonwealth move back into Malaya stopped at the Jitra and Kroh line. These positions had two fundamental weaknesses. First, they were not mutually supporting and each could be encircled and reduced at will. No plans had been made to defend these areas in-depth, and time spent on executing Matador had resulted in a lack of prepared fighting positions being dug. Second, a failure by the British to accurately reconnoiter the track from Kroh to Grik left this approach open to the Japanese 42nd Infantry Regiment. This placed the enemy in position from which to cut off the northern Malaya Peninsula and secure Port Weld in the process. The Japanese planned to use the Strait of Malacca for amphibious moves and had brought assault boats across the peninsula for this purpose.[25] The use of shore-to-shore movement was one cross-domain technique the Japanese 25th Army would use to avoid the obstacles formed by the drainage gaps that could potentially impede their advance. This littoral threat from the

Figure 3. Japanese troops mop up in Kuala Lumpur, Malaysia.

western seaward flank would further complicate British defensive planning ashore.

Jitra had a long and difficult frontage to defend. The 15th Indian Brigade held a four-mile front along the road with its right flank unsecured. Defending from the sea to 15th Indian Brigade's left flank at a distance of 12 miles was 6th Indian Brigade. This left 28th Indian Brigade in reserve under the direct control of the division commander, MG D.M. Murray-Lyon.[26]

The Japanese advanced from Singora with two regiments led by a reconnaissance battalion supported with tanks. The strength of this vanguard was able to smash the covering force near Asun and probe the length of the Jitra line. The weakness of the British east flank soon became clear, but the piecemeal commitment of the Commonwealth reserve managed to stabilize the situation. With his reserve used and the Japanese preparing to launch a set-piece assault, Murray-Lyon decided he had had enough and ordered a withdrawal that would not stop until they reached Singapore.[27]

The Japanese organization and equipment yielded a force that could react quickly. By having tanks well forward with the reconnaissance elements, they could attack directly from the line-of-march without losing time to reform. The strength with which these units could hit pushed aside all but well-prepared defenses.[28] Their infantry achieved this speed as well. Along the roads, Japanese infantry used any means at hand to retain their mobility. Bicycles were issued to each division for this purpose, but trucks, motorcycles and local transport were also drawn into service.[29] Off the roads, the Japanese retained the ability to maneuver by having their soldiers travel light – only small arms and lightweight mortars were carried; heavier supplies were moved by truck.[30] This force structure matched the tactical doctrine the Taiwan Army Research Section had outlined.

Conclusion

In summary, the influence of applying combat power across the domains of land, littoral and air allowed a Japanese force to seize and hold the initiative throughout the Malaya Campaign against a defender of equal size. The littoral threat forced the British to partition their forces across the length of the peninsula, creating opportunities for Japanese army units to mass on each defensive position in succession on the land. Japanese airpower was able to gain functional, but not absolute, control during the landings.

Success on land compelled a strong naval response to counter landings on multiple sites. Airpower in turn was able to negate forces afloat and open more maneuver options to forces ashore as the waters around the Malaya Peninsula became avenues of approach. Finally, the speed with which the land force could operate retained the strategic advantages gained prior to landing that forced the enemy to face an expanding array of tactical threats they were unable to counter on the ground.

Similarly, the U.S. Army's mounted maneuver elements provide the key forces of landpower within the context of a cross-domain campaign. The maturity of the Army Preposition Afloat force structure provides a strategically mobile hard-hitting brigade capable of being tailored to various levels of combat intensity. Its unique structure enables exploitation of speed and tempo within any joint theater of operation and thus provides the best vehicle to retain any strategic advantage gained through initial battlefield shaping, extended operational reach and exploiting opportunities across domains.

The Stryker Brigade Combat Team (SBCT) in particular, when properly reinforced, holds strong promise to provide the landpower component in many of the more austere Asian regions. The high rate of speed of the Stryker wheeled combat system, coupled with its reduced logistical demands, answers the challenge of the current JOAC to project and sustain military force. The full array of tactical capabilities resident in the SBCT organization provide the joint force commander with the means to present his opponent with a wide range of mounted and dismounted threats. This balance of a protected, mobile, combined-arms team allows the SBCT to operate over a wide range of terrain types as needed.

The Armor community has always been a strong advocate of the synergy found in combined-arms operations. It is a natural progression to extend this approach to the wider array of combat power found in the joint task force. The path ahead will demand refining both the manner in which landpower can exploit opportunities rendered by cross-domain operations and how the capabilities of ground forces can enable the success of joint forces operating in other domains.

As the modern joint force explores the complexity and interactions inherent in adding space and cyberspace domains to its operational horizon, this introduction increases need for multi-service cross-talk and communication. Operational experimentation is crucial to better understand and develop the manner in which these new combinations will allow the joint commander to exploit non-traditional defeat mechanisms. Issues of command relationships, priority of effort and operational interference and spillage compel our attention as we seek to optimize the contribution of each member of the joint task force within and beyond their respective domains. In this way, we can build on the historical lessons from the opening round of the last Pacific conflict to temper future outcome resolution in the region in a manner consistent with our national interests.

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Acronym Quick-Scan

JOAC – Joint Operational Access Concept
SBCT – Stryker brigade combat team

Cavalry Branch:
a Redesignation for the 21st Century

by CPT Nathan A. Jennings

Armor Branch has become a conceptual anachronism. After a decade of infantry-centric wars in Southwest Asia, and a significant reduction in the M1 Abrams fleet due to modular restructuring, the massive tank corps of the Cold War no longer exists. In the place of sheer mechanized density, a new and more dynamic incarnation of America's mounted arm has assumed primacy, centered on the array of reconnaissance squadrons that now enjoy majority status in the armored community.

Given the depth and totality of this transformation, Armor Branch should embrace the heretofore unthinkable: it should redesignate as Cavalry Branch. Such a change would not only recognize the diversity of the current forms and functions of the force but also promote a more relevant and versatile mounted arm.

The ascendance of a Cavalry Branch, harkening back to the very origins of the U.S. Army, would move far beyond the symbolic. In terms of perception, the rebranding would cast aside Cold War connotations of mechanized mass that accompany traditional "Armor" and instead invoke the 21st Century adaptability that the historical notion of "Cavalry" offers. As suggested by CPT Ken Segelhorst in his 2012 essay in ***ARMOR***, titled "Keeping the Sabers Sharp," the revitalized application of the historic cavalry spirit would invoke favorable connotations of the Western Frontier while revealing the branch's commitment to increased expeditionary capacity.[1] Furthermore, the change would align the branch's image with the reality of a current force structure that is primarily oriented toward the doctrinal domains of reconnaissance and security (R&S) operations.

In more substantive implications, a renaming would signify the armor and cavalry community's commitment to mounted dominance across all dimensions of ground combat. In this context, the branch would remain institutionally attentive to the robust mechanized superiority advocated by authors BG David Haight, BG Paul Laughlin and CPT Kyle Bergner in their ***ARMOR*** article, "Armored Forces: Mobility, Protection and Precision Firepower Essential for Future," but also more accurately reflect the majority functions of its fleeter reconnaissance squadrons.[2] Not yielding to the false choice between professional biases toward either heavy or light postures, the entire armored corps would benefit from a renewed appreciation of the mutual importance between America's troopers and tankers.

This rebalancing would amount to nothing less than a reinterpretation of the mounted arm's cultural center, representing a dynamic broadening of emphasis across the branch. It would draw upon the most useful aspects of the organizational contest for the heart and soul of the armored community. By combining the rich heritage of the late division cavalry squadrons, legacy armor battalions and armored cavalry regiments (ACRs) with the more varied mounted branch of today, rebranding would unite the disparate wings of the entire community under a more accurate universal identity. While the remaining tank companies in combined-arms battalions (CABs) will always remain crucial to the vitality of the army's mounted arm, the larger proportion of cavalry troops across the array of infantry, battlefield surveillance, Stryker and armored brigades would finally achieve recognition for their status as the branch's fighting majority.

Cavalry Branch: already a reality

The argument for redesignation as Cavalry Branch is grounded not just in the theoretical but also the practical. As the composition of the branch is re-evaluated, the assessment rapidly moves beyond realignment of organizational culture and finds deeper validation in the reality of the current force structure. In all but name, due to the striking imbalance of quantities between tank companies and reconnaissance troops, America's mounted arm is a predominantly cavalry community already. Given this structural rationale, the renaming of an archaically defined Armor Branch can thus be evaluated along three lines of justification: the **physical form** of the force, the **predominant functions** of the force and the **storied cavalry tradition** that predates mechanization.

Force's physical form

The first consideration, which reflects upon the physical form of the mounted component across the various modularity levels of brigade combat teams (BCT), appreciates the vast gulf between quantities of tank companies and cavalry troops now in active service. It narrates in stark numbers the disparities between personnel and equipment associated with the M1 Abrams platforms, and the same associated with the proliferation of humvees, M1117 Stryker recce vehicles, M1128 Stryker Mobile Gun Systems (MGSs) and M3 Bradley Cavalry Fighting Vehicles (CFVs). While the first represents a distinct minority in the community, the latter assemblage indicate a far more versatile and multi-purpose capability across the cavalry majority.[3]

Beginning with the 20 infantry BCTs (IBCTs) in the Army, there is a like quantity of cavalry squadrons containing 40 motorized cavalry troops now operating in support of both airborne and rifle battalions. Lacking the formidable firepower, protection and mobility of mechanized platforms, these troopers nevertheless carry the ancient *esprit de corps* unique to cavalry's dynamism into the heart of the infantry arena, with an increased measure of expeditionary capacity.[4] In an ocean of blue, their guidons stream red and white, and it must be remembered they are as vital to the future of the mounted branch as the mechanized legions of III Corps. As a pure component of 19Cs and 19Ds, the singularly R&S focus of the light squad-

rons figures prominently in the argument for a new Cavalry Branch.

A second, and less known, form of light mounted maneuver is found in the cavalry squadrons of the battlefield surveillance brigades (BfSBs). Designed as a division- or corps-level R&S asset in a more economized 21st Century context, the Army's three existing BfSBs each contain a cavalry squadron with two motorized cavalry troops. Like the squadrons of the infantry BCTs, these organizations operate on humvee platforms while conducting light reconnaissance with unstabilized weapons systems. Also like the squadrons of the IBCTs, the BfSB cavalry march under traditional red-and-white guidons.[5]

The cavalry squadrons of the Stryker BCTs (SBCTs) offer the third organizational form where cavalry dominates Armor Branch's presence. Consisting of 24 cavalry troops across eight cavalry squadrons and eight brigades, with more MGS platoons supporting 24 infantry battalions, the cavalry component once again achieves majority status. While offering more firepower, protection and mobility than the humvees of the IBCTs and BfSBs, the Stryker platform provides an intermediate level of armored capability for the force. Also, these cavalry squadrons support their brigades by seamlessly integrating advanced collection technologies into their maneuver. In the Stryker infantry battalions, MGS platoons bring an increase in direct firepower that only the cannons of the armored corps can provide.[6]

The fourth and most dynamic components of the mounted arm are found in the armored BCTs (ABCTs). While the BfSBs and infantry and Stryker brigades field an imposing majority of cavalry troops and squadrons, the tank companies of the CABs arrive to upset the equation in the mechanized brigades alone. Distributed across 15 heavy brigades and six divisions, the Army maintains 30 CABs and 15 cavalry squadrons for a total of 60 tank companies and 45 mechanized cavalry troops.[7] Though lacking expeditionary rapidity, these heavy legions remain unequaled in the application of precision destruction against ground threats while serving as America's ultimate deterrence in land warfare.

Armed with the venerable M1 Abrams on one hand, and a mix of M3 CFVs and humvees on the other, the ABCT represents the current mounted community's maximum fusion of firepower, protection and mobility. Within the organizational lineages of these heavy battalions and squadrons, the fighting spirit of the ACR, division cavalry and tank battalions live on, albeit in a reduced manifestation. In this category alone, the mechanized dimension – the tank companies – outnumber reconnaissance troops by a ratio of approximately 4:3. Given future prospects of reducing brigades while adding another CAB to each remaining ABCT, this ratio is expected to increase to 6:3.[8]

Despite the numerical superiority of the Abrams platform in the mechanized brigades, the total assessment of the mounted arm's composition definitively reverses the trend. Taking in account the aggregate quantities of 19-series company-level elements across the entire spectrum of combat brigades, the disparity between armor and cavalry is staggering: 60 tank companies to 115 cavalry troops. This disproportion results in a mounted arm that is weighted just 34 percent armor to 66 percent cavalry.[9] Given this acute comparison, it is clear that Armor Branch has already transformed into Cavalry Branch. While the M1 Abrams remains conditionally pre-eminent in the heavy arena, the plethora of scout platforms across the combat and surveillance brigades drives the contrast home: the predominant form of our current force is cavalry, and the gold guidons of the tank companies are the minority.

Predominant function

A second justification for the ascendance of a Cavalry Branch, that of function, stems directly from the composition of the mounted component. As cavalry troops have assumed numerical majority in the force, the mission of R&S has correspondingly risen to the fore. In each of the IBCTs, BfSBs, SBCTs and ABCTs, cavalry squadrons are assigned doctrinal missions of conducting zone, area and route reconnaissance to shape their brigade's maneuver. When required, and due to the unique mobility of the armored corps, these squadrons likewise conduct the historical cavalry missions of security, escort and, if need be, attack.[10]

The ultimate effect of this nearly branch-wide focus on reconnaissance, and the diversity of associated scout vehicles used to conduct it, is that the majority of 19A lieutenants will serve as scout-platoon leaders for their initial assignment. Unlike the Armor Branch of decades past, incoming generations of armor officers will primarily plan and execute R&S, while only a subsection of their peers will lead tank platoons. To be clear: most armor officers will spend their formative years as cavalrymen and will never command tank formations. The existence of the Army Reconnaissance Course (ARC) – which is unique in instructing cavalry planning and tactics at the platoon level – underscores the Army's recognition of this reality.

This disparity in armor and cavalry leadership also extends into the ranks of armor captains. Based on the disproportionate availability of tank and cavalry commands for the immediate future, 66 percent of armor captains will command cavalry troops, while only 34 percent will lead tank companies. Also, though CABs currently outnumber cavalry squadrons 2-to-1 in ABCTs, command in the headquarters companies and troops of those battalions will result in parity since armor captains will compete with infantry and engineer captains for the former, but the latter is exclusively commanded by 19-series. This likelihood of cavalry service, in both line troops and headquarters troops, is again recognized at Fort Benning, GA. Like ARC, the Cavalry Leader's Course is provided to instruct R&S-centered troop-leading procedures to company-level cavalrymen, while no comparable course exists exclusively for tankers.

The trend in disproportionate cavalry assignments, and therefore focus on R&S operations as opposed to combined-arms assault, continues into the ranks of the armor field-grade officers. Similar to the opportunities available to junior officers, the sheer numerical superiority of cavalry

squadrons over CABs defines the true nature of Armor Branch as cavalry. While all 45 squadrons are ostensibly allocated for assignment to 19-series majors and lieutenant colonels, only 28 CABs are available for the same.[11]

Taking the disparity in key-development opportunities even further, the operations officer, executive officer and battalion-command billets in the CABs are shared with 11-series officers, thereby reducing further the quantity of O-5 armor officers that will ever command tanks. Like their lieutenants and captains, field-grade officers of the mounted arm are far more likely to seize red-and-white colors than to grasp the same for a CAB. The resulting career path, from commissioning to battalion-level command, reveals likely advancement based in cavalry-centric units focused functionally on R&S operations.

Storied cavalry tradition

The final justification for designation as a Cavalry Branch rests less on quantifiable metrics and more on history and tradition. While the culture of the Armor Branch essentially dates back to mechanization for World War II, the traditions of the U.S. Cavalry and its dragoon predecessors originated with the nation's founding. Long before the dominance of the main battle tank, American cavalrymen and dragoons provided increased mobility to the U.S. Army's campaigns. Throughout the Revolutionary War, the War of 1812, the Mexican-American War, the Civil War, the Spanish-American War and the multiplicity of Indian Wars, generations of horse soldiers prosecuted American wartime objectives with the cavalry's distinctive *esprit de corps*.

In light of this proud history, reactivation of a Cavalry Branch in the 21st Century signifies not a step away from the heart of the armored community but rather a return to the deepest and most enduring culture in American mounted warfare. This history and tradition is seen daily across the various BCTs as troopers hoist the same red-and-white guidons carried by their predecessors in previous centuries. It is reflected in the Stetsons worn proudly by cavalrymen and cavalrywomen as they mark their unique status within the larger Army community. It is fulfilled annually in the rigors of spur rides and emphasized by earning golden spurs in combat. And finally, it is found in award ceremonies, where the honors of the Order of St. George are bestowed on those who achieve high levels of branch leadership.

These cherished traditions, harkening back to the founding of the United States, invite the mounted arm of the Army to once again embrace a Cavalry Branch. They connect the cavalrymen and dragoons of the 18th and 19th centuries who conducted reconnaissance, security, escort and attacks on the Great Plains with the cavalry squadrons of the modern force who perform almost identical tactical tasks in a global arena. When combined with the tank corps' recent heritage in division cavalry and ACRs, and the ascendancy of cavalry squadrons across the Army's IBCTs, BfSBs, SBCTs and ABCTs over the past decade, a compelling justification for a reinvented Cavalry Branch shines forth.

Moving the branch forward

A revamped branch for the mounted community would unite the disparate wings of the mounted arm with a new focus on versatility and relevance while maintaining a reduced version of the tank force. Yet these changes are not enough. To elevate the armored force under the current system to a higher level of effectiveness, further change is required. As a closing salvo, the following paragraphs suggest several points of improvement that would enhance the competency of any future

Figure 1. Cavalry tradition is commemorated as troopers from 1st Cavalry Division's Horse Cavalry Detachment charge across Noel Field during the activation ceremony of the division's 4th Brigade Combat Team at Fort Bliss, Texas, Oct. 20, 2005. *(Photo by SPC Paula Taylor)*

Armor Branch or Cavalry Branch.

First, the Army must address the much-criticized deficiencies in the cavalry squadrons of the ABCTs. With a dearth of both firepower and protection, and an anemic allocation of crewmen and scouts in humvees and CFVs, the squadron is suited only for moderately contested R&S operations. It cannot fight for information, nor execute its mission in the face of robust armored resistance. To remedy this flaw, the Army should restructure cavalry troops with a 2/2 slant of tank and CFV platoons. With retention of their tracked mortars, these troops would offer the brigade a measure of the fighting capacity once fielded by the ACRs.[12]

The cavalry squadrons of the IBCTs offer a second organizational structure that requires scrutiny. Given the Army's intent to add a third rifle battalion to the light brigades, these cavalry squadrons should replace their 11-series dismounted reconnaissance troop with a third 19-series motorized cavalry troop. This increase in motorized mobility, in addition to the retention of a robust dismounted infantry platoon as a squadron-level asset, would allow each squadron to symmetrically align their shaping functions with the three maneuver battalions while still using their specialized platoon for deep insertion. If need be, any of the cavalry troops could also be dismounted to increase long-range insertion capacity for the BCT. The BfSBs should likewise adopt this restructuring to allow increased ground mobility for R&S efforts at division and corps echelons.[13]

Third, the Army should address the increasing issue of infantry lieutenant colonels and command sergeants major leading reconnaissance squadrons populated primarily by 19-series Soldiers. While the competency of 11-series field-grade officers and senior noncommissioned officers to lead cavalry organizations is not in doubt – and indeed, this author served under a magnificent infantry squadron commander and command sergeant major who enthusiastically embraced the cavalry culture – the fact remains that for every infantryman who accepts a cavalry command, a cavalryman goes without. Short of addressing this misplacement, Armor Branch should lobby strenuously for a commensurate share of rifle battalion commands for Ranger-qualified armor officers.

Fourth, cavalry-squadron command teams should continue to embrace the role of "chief of reconnaissance" for their respective BCTs. The mounted community cannot allow itself to become narrowly focused on single-dimensional methods of ground reconnaissance. Instead, it must seek to integrate and administer the entire panoply of brigade-level intelligence-collection efforts and thereby emerge as the habitual leader of any R&S task force. In addition to this effort, Armor Branch should seek to permanently augment each cavalry squadron with an organic military-intelligence platoon to enhance collection capacity internal to the squadron.[14]

Fifth, and finally, a slight change in perception must be applied not just to the branch writ large but also to the tank platoons and companies that allow the fullest measure of dominance in ground warfare. As the branch moves increasingly toward a motorized posture due to economy-of-cost measures imposed from national leaders, the tank corps should be raised to elite status within the mounted community. As a critical minority in the force, often operating without the mentorship of 19-series O-5s and E-9s in CABs, only Armor Branch's best and brightest should be allowed to crew the main battle tank. In this manner, let lieutenants and captains at the maneuver courses compete for these elite assignments. Let tanker boots be worn as a mark of selectivity, and finally, consider allowing tankers to own the singular right to wear the black beret as they did in ages past.

The discussion over the institutional center of the Armor Branch will not end with this article. It is offered as a modest proposal to contribute to the ongoing discussion over the future of the armored corps. Yet the implementation of these improvements, in addition to a shift in cultural and organizational emphasis toward cavalry versatility, is necessary to align the American mounted arm with the demands of the post-Iraq and Afghanistan operating environment. In pursuit of this objective, the redesignation of Armor Branch to Cavalry Branch would offer both a symbolic and substantive move toward achieving that objective.

This argument holds true even when accounting for the expected BCT reconfiguration over the next four years. While the disproportionate reduction across the Army between IBCTs and ABCTs will result in a net increase in CABs and decrease in cavalry squadrons, ultimately bringing parity at 36 apiece, the differential at the company level will remain weighted in favor of a cavalry emphasis. Even when accounting for the addition of a third CAB to each of the remaining 12 ABCTs, cavalry troops will still outnumber tank companies 91 to 72 Army-wide. Considering the previous reduction of the tank corps, this more balanced percentage differential of 56 to 44 should be celebrated by the mounted arm as an increase to the branch's effectiveness and versatility.[15]

Given the immediacy of the challenges facing the armor and cavalry force, the way ahead must be decisive yet balanced. Finding effective moderation between the tank-centric corps of the past and an increasingly expeditionary force of the future will emerge crucial to sustaining American primacy in mounted warfare. Furthermore, justification for a reinvention of the mounted arm as a cavalry-centric community is already inherent in the form, functions and traditions of the R&S squadrons that now define most of the 19-series formations across the constellation of IBCTs, BfSBs, SBCTs and ABCTs. For the mounted arm of the 21st Century, it is time to recognize and embrace this reality; for the tankers and troopers of the modern armored corps, it is time to accept the ascendance of an official Cavalry Branch.

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Acronym Quick-Scan

ABCT – armored brigade combat team
ACR – armored cavalry regiment
ARC – Army Reconnaissance Course
BCT – brigade combat team
BfSB – battlefield surveillance brigade
CAB – combined-arms battalion
CFV – Cavalry Fighting Vehicle
IBCT – infantry brigade combat team
MGS – Mobile Gun System
R&S – reconnaissance and security
SBCT – Stryker brigade combat team

Reconnaissance and Surveillance Leader's Course

by Nicole Randall

For some Soldiers, it's "shoot, move and communicate," but for Soldiers skilled in the art of reconnaissance and surveillance, it's "communicate, collect and report." Sometimes this task occurs without heavy fire support only several dozen feet from the enemy and possibly thousands of miles from friendly forces.

The question is: Where do you send Soldiers and leaders to teach them the kind of control, intuition and skill it takes to deal with this kind of situation? The answer is to the Maneuver Center of Excellence's 29-day-long Reconnaissance and Surveillance Leader's Course (RSLC).

Department of Reconnaissance

This specialized course, a long-standing sister course to Ranger School, was recently integrated into the Armor School to form the new Department of Reconnaissance. RSLC serves as just a piece of the reconnaissance and security (R&S) training this newly formed consolidation offers; in conjunction with the Army Reconnaissance Course and Cavalry Leader's Course, RSLC provides a particular level of learning for all military occupational specialties (MOSs) associated with reconnaissance.

"We've reorganized here at the Maneuver Center and we've brought the [R&S] classes together," said BG Leopoldo Quintas, Armor School commandant. "What we're endeavoring to do is establish a continuity of training from inception, when a Soldier enters the Army, all through the enlisted ranks and officer ranks to make sure we develop experts in reconnaissance and security."

As Soldiers travel through the ranks in the U.S. Army, they are educated in their professional development in the Noncommissioned Officer Academy. However, throughout their career, depending on their MOS, they need to continue to develop their individual skills and MOS-related skills.

"RSLC trains young Soldiers and leaders about what reconnaissance is, how it fits into the commander's planning and actions on the ground, and how it will usually lead to successful mission accomplishment," explained COL Robert Choppa, Infantry School commandant.

Consolidating all the reconnaissance courses into one brigade gives service members who attend RSLC a one-stop shop for all their R&S needs.

"It is the only course in the Army where [a student] can learn about the specific reconnaissance tasks a small element is going to be required to do," said LTC James Hayes, commander of 3rd Squadron, 16th Cavalry Regiment. "It's also the only place you can learn special insertion and extraction techniques, it's the only place where you're going to learn to plan for an air insertion, and it's also the only course that's teaching certain special skills."

Gaining expertise in basics

To climb the reconnaissance ranks, you must first be an expert in the basics, according to 1SG Brian Baumgartner. "No matter your MOS, these are the basics; usually the best people in the world are the best at the basics," said Baumgartner, the course's first sergeant and a former course writer and senior instructor. "We teach the basics very well. We teach a lot of special-mission tactics, too, but we teach the basics of doing a reconnaissance patrol very well."

RSLC starts the same way most courses do: with an Army Physical Fitness Test (APFT). The course requires a student to patrol on foot for miles and carry a 75-pound rucksack for most of that distance. This requires endurance and strength, which are tested during the Army's APFT. RSLC also requires a written land-navigation test, which is available on-line and should be taken, or attempted, before coming to the course because land navigation has the highest attrition rate of any of RSLC's other standards.

"We do that because, as a reconnaissance Soldier, you need to know where you're going," Baumgartner said. "You can't rely on Global Positioning System because it can be broken. You need to know how to look at a map and understand terrain and how to get there."

Advanced land navigation, extraction methods

The five-point land-navigation course RSLC teaches has been compared to some of Special Operations' courses and is considered advanced land navigation. Phase I of RSLC is mostly comprised of Skill Level I and II tasks, where students not only learn more skills, they also master the basics of woodland reconnaissance, small-unit tactics, patrolling and communications systems. The course's cadre builds on skills students (hopefully) bring to the course and trains them to enhance those skills.

"In the first phase, we build them up, and if you didn't have the skills when you got here, you're going to have them by the time you hit Phase II so you can hit the ground running," Baumgartner said. "When your boots hit the ground in Phase II, you should know what you have to do."

Phase I teaches students the skills they need during their situational and final field-training exercises. These basic skills are how to build observation posts and hide sites, as well as special tactics and extraction methods. Other skills trained and tested include the student's airborne abilities with not only static-line jumps from a UH-60 Blackhawk helicopter but also practice techniques mostly reserved for Special Operations units – like the high-altitude, high-open (HAHO) or high-altitude, low-open (HALO) military free-fall (MFF) insertion methods. A HALO or HAHO jump, usually executed at

Figure 1. RSLC students fast-rope to the ground during SPIES/FRIES training. *(Photo by Ashley Cross, MCoE PAO photographer)*

around 25,000 feet with oxygen masks, is accomplished on Fort Benning, GA, at around 10,000 feet.

"RSLC conducts [MFF] operations to stay current because there are units out there that do jump MFF that are reconnaissance units, and sometimes these units come through our course," Baumgartner said. "In the past, RSLC has been asked if a Special Forces or Special Operations unit came to the course, if it would be possible to jump HALO."

In addition to airborne jumps, the students also learn extraction methods and other insertion methods like the Special Purpose Insertion / Extraction System (SPIES) and the Fast Rope Insertion / Extraction System (FRIES).

It's important these reconnaissance Soldiers are given experience using these methods, not only because RSLC is one of the few courses that includes these methods in its program of instruction (PoI), but it's also important students are able to see what exactly is done during the execution of these methods so they may include them in any plans they make in the next part of the course or in the future.

Communications

"It's about showing students different options so they can plan their mission

Figure 2. RSLC cadre and students jump from 10,000 feet during their HALO MFF. *(Photo by Ashley Cross, MCoE PAO photographer)*

best for success," Baumgartner said. "One of the most important skills the students learn in Phase I is communications. RSLC is one of the only military courses left to teach certain types of communications methods."

SSG Chris Loken, an RSLC instructor, elaborated: "We teach three systems. We teach the [AN/PRC-148 Multiband Inter/Intra Team Radio (MBITR)]. That's a squad-level radio you use to talk within your team. We also teach the [AN/PRC-117F Multiband Manpack Radio or Multiband Multi-mission Radio (MBMMR)], which has satellite capabilities, but we don't apply it in the course. We like them to know about it because in theater, everybody's using satellites. So we teach that here so they know how to use it when they get to theater. The [AN/PRC-150(C) Multiband Radio, also known as the Falcon II] is high-frequency (HF) communications, and it covers the HF band that's the lowest band of frequencies we use. Because it uses such a low band, it doesn't use satellites. It actually uses the ionosphere to get that signal from Point A to Point B."

Figure 3. RSLC students learn communications techniques using the Tuff Book. *(Photo by Ashley Cross, MCoE PAO photographer)*

Learning all these communications methods allows a Soldier to use them and plan those capabilities into their mission.

"You have to talk," Loken said. "If you can't talk, you can't report, and if you can't report, that maneuver commander you're supporting goes in blind."

Another aspect of communications RSLC teaches is the transfer of images, video and other media to the commander. Radio communication was once the only way to relay information, and the Soldier would have to describe what he saw. While that form of communication is still widely used, it's no longer the only capability at a Soldier's disposal.

"Now we can send commanders pictures, videos and graphic representations of the ground, of what the [named area of interest (NAI)] looks like," Baumgartner said. "If it's an assault commander coming through, he can understand what the NAI looks like so he's better prepared for that task."

Evasion, recovery, survival

As the course continues, students move into more complex and higher skill-level tasks. One of the most important tasks a reconnaissance Soldier can maintain is the ability to survive. When his unit is dropped hundreds of miles inside enemy lines to observe an NAI and it is compromised, Soldiers need to know how to evade the enemy and survive until they can be recovered. Therefore RSLC teaches a class on evasion and recovery.

"At one point or another, if you're deployed, there's always a chance you're going to need to know how to evade and how to be recovered, so I think it's very important everybody knows this," said SSG Charles Hannan, an RSLC instructor. "What's important in this course is getting the guys to start thinking about coming up with a really good evasion plan."

Part of RSLC is creating an evasion plan of action. This includes recognizing markings, calling aircraft and recognizing the environment they are in and where they can attain vital resources like water, edible plants and appropriate shelter.

"Along with evasion and recovery, we go pretty in-depth on the basics of survival, which is a huge part of being able to evade," Hannan said. "Because even if you have a good plan to be recovered, if something goes wrong, you don't necessarily know when you're going to get recovered. It could be anywhere from 24 hours to 72 hours. You may have all your food and supplies, or you may not. So along with evasion and recovery, we teach the survival portion as well."

These basics include things like how to make a fire, how to purify or procure water or food, and how to create a shelter. This part of the course teaches some of the basic survival, evasion and recovery techniques the Survival, Evasion, Resistance and Escape (SERE) Course teaches but on a more basic level. The point of the evasion and recovery class in RSLC is really to give the students the basics and start them thinking about how they will incorporate those basics into their plan.

Figure 4. An RSLC student briefs his plan during the confirmation-brief portion of the planning process to RSLC instructor Rick Gainey. *(Photo by Patrick Albright, MCoE PAO photographer)*

"You need to survive long enough to be recovered," Hannan iterated.

All Soldiers carry weapons, so you may be wondering why these Soldiers wouldn't just engage any enemy they encounter. That is not part of the mission for most reconnaissance Soldiers; they may not have the proper resources, so evasion becomes their best option.

"If you're a regular infantry squad, more than likely, you have a lot of firepower and you're not far away from friendly lines," Hannan said. "But long-range surveillance Soldiers may only be [carrying] [an M203 grenade launcher] as the largest caliber of weapon they have, and they don't have the firepower to stay engaged in a fight."

Learning confidence

Students learn confidence during RSLC. Soldiers learn graduate-level reconnaissance skills and techniques, but they also learn control and confidence, which are vital when they are in compromising situations.

"There's something about a Soldier with a compass and a map, stepping out into the darkness to find points, that builds resiliency and confidence," Baumgartner said. "He's out there alone, unafraid, and he's accomplishing a mission. In a small unit, you need to rely on your leadership. Graduating from this course should instill confidence in the Soldier. If you can lead six to eight guys here, you can lead a platoon, a section or a company on the battlefield confidently."

Phase II in RSLC takes the basic skills students have learned in Phase I and gives them a situation in which to apply those skills. Many of the most important parts of Phase II are in the students learning how to plan and for what to plan.

"You don't just do a five-paragraph operations order (OPORD)," Baumgartner said. "That's what most units do – they rely on a concept of operations, which is a one-slide confirmation of the operation. What we do here is teach the students to use the military decision-making process (MDMP) with troop-leading procedures (TLPs). We plan this way because there are just so many contingencies a reconnaissance Soldier needs to think about."

Planning starts with learning TLPs and

how to use MDMP within three to four days of classroom instruction. After classroom instruction, students report to planning bays, where they are assigned an experienced walker / instructor, who takes them through each step of the process. Students learn what right looks like from an experienced reconnaissance and surveillance noncommissioned officer (NCO), according to Baumgartner.

"It's a good time for the Soldiers, NCOs and officers who come through here to get developed by a senior NCO," he said. "After [students] complete that, they go to the situational training exercise (STX)."

STX phase

The STX is the halfway point for students and starts with several days of planning and preparation. Then students are inserted via airborne jump from a UH-60. This is also an opportunity for MFF-qualified students and cadre to jump HALO from 10,000 feet.

After landing on Arkman Drop Zone, students start their 48-hour patrol with their assigned walker. Unlike the final field-training exercise (FTX) at the course's end, the STX is student-led and cadre-assisted.

"An RSLC instructor will be walking with them, critiquing them and resetting them if they need to," Baumgartner said. "Their job is to make sure [students] are successful."

Students will go through the whole operation, getting eyes on the NAI and reporting, and then they'll be extracted. Once they are pulled out, they are brought back to the RSLC isolation facility and refitted, and the FTX starts, according to Baumgartner.

FTX phase

"[The students] come back, and it's time to start the graded portion of the course," explained SFC Christopher Fresquez, an instructor / writer at RSLC. "So we give them the OPORD, which they are expected to execute on their own."

During the final FTX planning process, the instructor can answer questions, but his purpose is primarily to grade students on a range of tangibles and intangibles: from the technical aspects and creativity of how to construct an observation post to how students perform in a leadership position.

Figure 5. An RSLC student exits the aircraft during the STX. *(Photo by Ashley Cross, MCoE PAO photographer)*

Figure 6. An RSLC student pulls security at Selby CACTF during the urban portion of RSLC's FTX. *(Photo by Patrick Albright, MCoE PAO photographer)*

"[The instructor] sits in on their briefs – their confirmation briefs, their OPORD and their backbrief – to make sure [students] understand the information and applied it in the right way," Fresquez said.

After producing their OPORD, the team steps into what is called the confirmation brief, which is a reassurance to the commander that the team understood his intent. Next is the backbrief. Before starting the mission, the reconnaissance Soldier completes a backbrief with a brigade commander, squadron commander or division commander – any echelon that has any interest in that mission, according to Fresquez.

Planning is a crucial point when it comes to students building their team.

They remain with this team for the rest of their FTX; leadership positions rotate, but this is the team, rain or shine, aboveground or underground (literally).

"As the FTX goes on, students learn to rely on each other as a team," Baumgartner said. "Successful teams use the word *teamwork*. Individuals don't pass this course; it's not about an individual, it's about a team effort to be successful for the mission. Teams who fail to work together or let issues get in the way are the ones who suffer. This course is designed for teams, not individuals."

Teamwork, planning and preparation are done throughout several days to give students time to learn and retain this vital part of their instruction. "It's very important because one of the things students get the most out of in this course is the planning process because it's nonstandard, compared to what they're used to doing," Fresquez said.

Urban-reconnaissance phase

After completing the planning process, students are inserted via FRIES and patrol several miles to their NAI. The urban-reconnaissance portion of RSLC is something students usually have never experienced. It is also the first chance for them to see how well their evasion plan will work.

"If you don't have a plan for every contingency for what you're going to do in a million different situations, you're going to fail because being that forward of friendly troops all by yourself, you have to know what you're going to do," Fresquez said. "So planning is very important."

The students' plans encompass their mission, which is to observe the patterns of life of the people in and around the area the students are observing. Said SSG Jesus Zuniga, an RSLC instructor, "The way we're fighting in real life right now, we're moving out from the woodland environment into urban reconnaissance, and we're moving into buildings. So we teach the students multiple techniques and procedures for how to move from the woodland environment into a village."

Urban reconnaissance engages students to find and infiltrate a building where they can set up an observation post. Students set up a command area, a location that helps maintain light discipline. This is important because the Tuff Book, a small laptop-type device that reconnaissance Soldiers may use to communicate with their higher command, throws light. A location like this helps students avoid discovery.

Another part of the team sets up a surveillance area and watches the "city." This area on Fort Benning is the Selby Combined Arms Collective Training Facility (CACTF). The CACTF is a group of buildings used specifically for this kind of training.

"When you're moving into an urban environment, there are more things to be cognizant of," Zuniga said. "We've got streetlights, dogs, traffic; we have more things to worry about than just making noises in the woods. Now we're occupying a building, so we teach them which building to occupy, if that building has been occupied before, if anybody is going to compromise them and how long they're going to be there for."

Figure 7. Students use camouflage to hide the Tuff Book during their woodland FTX. *(Photo by Patrick Albright, MCoE PAO photographer)*

Throughout the entire mission, from insertion to patrol to occupying the building and conducting surveillance, students have an experienced RSLC instructor with them.

"We want to teach the students who come here to use those techniques and teach them what we've been through," Zuniga said.

Figure 8. Students relay intelligence back to the compound using the Tuff Book during their woodland FTX. *(Photo by Patrick Albright, MCoE PAO photographer)*

After students collect the appropriate information and send it back, they learn the enemy is moving into the woodland environment around the city, so they are extracted.

Woodland phase

The woodland portion of the FTX is a culmination of what the students learned throughout Phase 1 and during the STX. SSG James Henderson, an RSLC instructor, explained: "What it does is challenge teams to use what they've learned, to come together as a team and implement those tasks and skills into successful mission completion. Included in that are various insertion techniques, whether it be by vehicle, airborne operation or FRIES insertion."

During the woodland FTX, students are inserted and then patrol throughout the day and night finding their NAI. When they find their NAIs, they set up their observation posts based on their training up to this point.

"They also move into the small-unit tactics of what we've taught them as far as crossing danger areas, reacting to contact and reacting to indirect fire," Henderson said. "After students construct their observation posts, they gather and collect intelligence on the NAI they are tasked to perform their mission on."

The observation post is set up only yards from the NAI and is concealed using the forest itself or in a subterranean den dug by Soldiers when they first arrive at the site. Using the surrounding environment and shovels they carry in their packs, students construct their observation post during the FTX to conduct surveillance on the NAI chosen. Surrounded by dirt, covered with logs, their own waterproof equipment and then another layer of dirt and plant life, students make this site look like another patch of forest so they can remain undiscovered.

Getting Soldiers as close as possible to the NAI is useful because even with all the technical advancements available, nothing beats a trained Soldier's vision.

"It's important, getting that vantage point to where you can cover as much of the NAI as possible with optics and the naked eye," Henderson said. "That way, you can pull the most details and the most information from that NAI."

Figure 9. Students learn to construct their observation posts using shovels and creativity. *(Photo by Ashley Cross, MCoE PAO photographer)*

While used often by surveillance teams, video surveillance, pictures and imagery can't provide the context using all five senses like a Soldier can. There are many ways to analyze an area, and a commander needs to know every aspect of an area his unit may be moving through, not just the visual aspect.

"When [Soldiers are] sending message traffic, they can't be vague," Henderson said. "They need to be as detailed as possible and not allow anything to get lost in translation. [They need to] make sure it's feasible and easy to read."

Soldiers need to understand that when the information they gather goes to a higher command, it's getting disseminated to multiple units and experts, and they will start data-mining to fill in any gaps in intelligence, according to Henderson.

"It all comes together in that final report, and that final report goes to the commander, and he's going to determine the next course of action," Henderson added.

However, before the information gets to the commander, it's disseminated throughout the team. Several hundred meters away, another site is set up called the hide site.

Figure 10. RSLC students are extracted via SPIES on the final day of their FTX. *(Photo by Patrick Albright, MCoE PAO photographer)*

"The information they collect from the observation post goes back to the hide

site," Henderson said. "The team leader is located there; he's the ground-force commander for that team. It's his responsibility to make sure all that data that's being collected on that NAI is being sent to higher."

Throughout the FTX's woodland portion, leadership positions change. The team receives fragmentary orders (FRAGOs), which are changes in the original order. They receive new NAIs and pick up their sites to move to their next NAI.

"With the changing global situation we may end up finding ourselves in, there are areas where they need to learn how to navigate cross-country over varying terrain such as swamps, creeks, rivers, multiple roads, trails and woodland environments," Henderson said.

After receiving several FRAGOs and getting compromised, a situation where they have been discovered by the enemy and have to evacuate quickly and use their evasion skills, students are extracted via SPIES. Learning this extraction system and applying it during their FTX is important for the students so they can incorporate the method into their plans in the future. While they have already learned FRIES and other possible methods of extraction, course cadre find it's important to give students options.

"What works for you one way to get in won't necessarily work for you to get out," Henderson said. "Extraction is plain and simple, but it's complex at the same time. During the SPIES portion, students have to look around on their map at the terrain and pick the best spots they can maneuver to and feasibly get an aircraft in to pull them out."

Debriefing, discipline

When students are brought back to the compound, they are debriefed as they would be after an actual mission. Not only are they collecting intelligence to answer the commander's information requirements, they're also collecting information the moment they hit the ground – even if it's not what they're looking for – that could be helpful in future operations, according to SFC Nelson Ashbrook, an RSLC instructor. "[Debriefing] is our chance to gather intelligence and every piece of information they have and put it to paper and disseminate it," Ashbrook said.

The technical and intangible skills gained in RSLC are priceless to a reconnaissance Soldier's skill level. However, even with the chance to do some unique tactical insertion or extraction techniques and receiving the technical-communications training, nothing is more important than learning the acts of collection and reporting.

"You're there to gather information for the lives of the guys who are coming after you," Baumgartner said. "Your brothers in arms rely on what you tell a commander because he's going to shape his plan off what you give him. If you give him a very detailed plan, it could change the operation, it could change what he does."

The basics of collecting and reporting include many facets, but RSLC makes sure students come away not only knowing the basics, but able to conduct them.

"We teach the basics of it and then we also include tactics, techniques and procedures of how to do it better at different levels," Baumgartner said.

Another byproduct of the course's PoI is discipline. "Discipline is the most important asset to a reconnaissance Soldier because you have to be disciplined enough to be alert, to man security, to be on security at any time," Baumgartner said. "Discipline is what keeps Soldiers alive. If I choose to go to sleep while I'm [pulling security] on an NAI, my whole team could be killed."

This kind of discipline is evident in maintaining control if an enemy Soldier walks right over the top of your observation post and keeping yourself alert when you've been awake for days. This is the kind of life-saving discipline RSLC impresses upon Soldiers.

RSLC trains Soldiers who not only have a higher responsibility to their own unit but who affect the fate of units who come after them.

"The guys who are selected to come here by their battalion or squadron commander have a special task in the Army," Baumgartner said. "That task is to [answer information requirements] for that commander. Being a reconnaissance guy is self-sacrificing because you don't have the glory mission of assaulting the NAI and becoming the hero of the battle."

While many may not receive the nation's highest military recognitions for distinguishing themselves in firefights, their contribution to America's success on the battlefield is no less crucial. RSLC takes on the challenge of training these highly skilled and specialized Soldiers.

Their importance may best be summed up by this quote from the ***Ranger Handbook***: "Tell the truth about what you see and what you do. There is an Army depending on us for that correct information."

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Acronym Quick-Scan

APFT – Army Physical Fitness Test
CACTF – Combined Arms Collective Training Facility
FRAGO – fragmentary order
FRIES – Fast Rope Insertion / Extraction System
FTX – field-training exercise
HAHO – high altitude, high opening
HALO – high altitude, low opening
HF – high frequency
MDMP – military decision-making process
MFF – military freefall
MOS – military occupational specialty
NAI – named area of interest
NCO – noncommissioned officer
OPORD – operational order
PoI – program of instruction
R&S – reconnaissance and security
RSLC – Reconnaissance and Surveillance Leader's Course
SPIES – Special Purpose Insertion / Extraction System
STX – situational training exercise
TLP – troop-leading procedures

'Confessions of Mediocrity'

by 1LT Paul A. Brannan

*(**Editor's note**: Although Army professional bulletins do not usually publish personal essays, this compelling appeal for professional development and mentorship is worth **ARMOR** readers' notice.)*

Bottom line up front: I expect my future to be filled with failure.

I have never been particularly book smart. At school, I was always more of doer than a thinker. As a result, I went to Maneuver Captain's Career Course (MCCC) at Fort Benning, GA, with every expectation of all that "brain stuff" being a challenge.

A key part of MCCC is putting together operation orders (OPORDs) and briefing them to an instructor. One of my OPORDs did not go particularly well, and the senior officer grading it tore my presentation and analysis to shreds. Truth be told, he probably wasn't as harsh as he should have been. After such a terrible mess, I headed home and drowned my sorrows in single malt whiskey.

The next morning I dragged my worthless carcass over to Harmony Church to meet with (and maybe get some help from) a drill sergeant, SFC Dave Whitehead, with whom I had deployed during my career as an enlisted medic. A little more than a week later, he arranged for me to present my OPORD again, this time to him and a roomful of basic trainees. I started out by explaining to the new recruits that I was also in school at Fort Benning, that officers were also expected to keep improving their skills. I told them I would appreciate their help because I needed to work on building OPORDs so I could do it right when there were lives (possibly theirs or those of their buddies) on the line. So I presented the OPORD again, and this time it was not a senior officer critiquing me but a roomful of future tankers. When I finished, I had them backbrief me on parts of the plan so I could see how effective I had been in imparting the mission details. I had them ask questions on points they didn't understand, then these new Soldiers gave me open and honest feedback about what they thought was good or bad about my presentation.

When they left, Whitehead gave me his critique. He told me my presentation was not perfect, but I had "tightened my shot group" and incorporated the feedback the original grading officer had given me. He also gave me some pointers from what he had learned when he went through a different Army school. As a result, at my next MCCC OPORD, I was able to incorporate the feedback from Whitehead and his recruits.

What's interesting about all this is that at the same time I was practicing my skills at giving a presentation to an audience, the new recruits were getting the chance to experience receiving a mission briefing. While I was developing my skills at which parts of the order I needed to emphasize most, they were developing their skills at identifying which part of the mission they needed to understand most. As I had the opportunity to practice explaining how the enemy would attack using Soviet doctrine, they had the opportunity to begin thinking about how their enemy may deploy and behave in combat.

Beyond the information contained in the presentation, I sincerely hope the new recruits also learned a couple of other key points. First, that officers are human; officers can make mistakes, and they need to develop their skillset just as much as an enlisted Soldier does. Second, although the recruits are new to the Army and "low on the food chain," there is nothing stopping them – like there is nothing stopping me – from increasing their Army skills, embracing education opportunities and one day being Army leaders standing in front of Soldiers laying out their own mission plans.

As I say, I'm no thinker; I was always that kid who got into (read: led others into) trouble. I figured that fools may rush in where angels fear to tread, but the angels are all in heaven, and there are no shortage of fools on earth, so what's the worst that can happen? I made, and somehow survived, more than my fair share of mistakes. I was lucky, though, to have parents, great teachers and key mentors who all imparted one vital fact to me: people make mistakes. ***Mistakes are the fodder for real learning.*** Someone who never fails is either perfect (which certainly doesn't describe me) or is never willing to push himself. Most mistakes aren't that big a deal, really. Because failure isn't the big deal; it's the giving in to failure that is. Over the years, my quixotic impulsiveness and lack of smarts ensured I had plenty of experience in failure; my tenacity (read: bloody-mindedness) drove me to keep trying until I overcame the challenge.

Sometimes I see hesitancy within the Army to step outside our comfort zone, to embrace the challenges and failures that come with striving to "be all we can be." While I was in Officer Candidate School (OCS), our commander was a strong believer in running as the key fitness skill and we ran a lot; coincidentally, he was a fast runner. One of my old battalion commanders was a firm believer in resistance training (which, coincidentally, he was awesome at) and focused less on running. When, as a junior enlisted Soldier, I was being taught the Warrior Tasks and Drills, it seemed every instructor insisted that the most important skills were the ones at which, coincidentally, he was most capable.

On the flip side, I remember at Armor Basic Officer Leadership Course (ABOLC) talking to a fellow student who was on the verge of a panic attack because he had failed a test. He was very worried that he might fail the retest and get recycled. He was a smart young man, with a first-rate education and good brain, and failing a test was a new experience for him. Somehow in all that good education he'd never gotten knocked down, so he'd never had to get himself back up. All his previous experience of success had denied him the chance to build up the necessary resilience for standing firm against a minor setback.

Good leaders fail sometimes. They get over it; they get on with trying again. Real leaders see their failures as potential learning points for themselves and others. For example, I had the honor of being at one of the first briefings MG Sean MacFarland gave his subordinate commanders when he took command of 1st Armored Division in May 2013. Rather than regale us with a list of his great achievements, he told us about how, as a young lieutenant, he had almost been fired as a platoon leader. As a company-grade officer, I appreciated knowing that my division was led by a man who had the humility to embrace his own challenges and the resolution to keep pushing himself until he reached his current rank, and it was the ideal introduction to who my new commanding general was as a person.

This hesitance to embrace challenge – to truly ***test*** ourselves – bleeds over into how Army schools are conducted. When I attended Warrior Leaders Course (WLC), I found much of the curriculum to be about "checking the block" and everyone getting a "go." Out of my WLC class, every student passed – even the ones who got into trouble, failed the Army Physical Fitness Test (APFT) or otherwise didn't perform to standard. Likewise, shortly before I left my line unit to attend OCS, my platoon received three new Soldiers straight from advanced individual training (AIT) – all of them failed the first APFT I gave him. One had spent most of AIT on profile and hadn't had to do any physical training, and another told me he'd been allowed to graduate on the basis that the unit he went to (i.e., us) would improve his physical ability. Since we were a platoon of line medics, I can only hope there weren't similarly relaxed standards for his medical training. Downrange, when you are fatigued and stressed, and a real individual needs his medic's attention, the old Grim Reaper is rarely willing to "check the block."

As U.S. presidents Theodore Roosevelt and Richard Nixon noted, there is no effort without error and shortcoming. The schoolhouse needs to be the place where we are pushed to our limits and then a little farther, where we develop our skillset and make mistakes. If students aren't being challenged by what they are taught in Army schools, the bar is probably set too low. Beyond the schoolhouse, if we wish to consider ourselves as professionals, we need to put our egos aside and seek out what we cannot do, rather than congratulate ourselves on what we can. In training we need to take risks that we won't be perfect; we need to take risks that we'll fail at some things. Only when we do will we truly learn something new; only when we do will we grow as leaders of men.

My ability to produce OPORDs is still behind that of many of my peers. I know it'll take me time to reach their level of expertise. However, as long as I am willing to embrace my shortcomings and continually practice the skillset involved, I will get better; indeed, by committing myself to improving, I'll eventually overtake those of my fellow students who have far more natural talent but who discard what they were taught once they graduate MCCC.

Hopefully, I will never stop rushing in where angels fear to tread, never stop finding myself in situations where my plans go down in glorious flames. If ever timidity or ego tempers my actions, if failure becomes something to avoid, then I need to be concerned.

Because that is when I will have truly failed.

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Acronym Quick-Scan

ABOLC – Armor Basic Officer Leaders Course
AIT – advanced individual training
APFT – Army Physical Fitness Test
MCCC – Maneuver Captain's Career Course
OCS – Officer Candidate School
OPORD – operations order
WLC – Warrior Leaders Course

Knowledge Management at the Brigade

by MAJ Thomas E. Laybourn

Knowledge management (KM) exists as a process for facilitating more effective mission command. Realistically, our units can increase their effectiveness by applying a systematic view of KM at the brigade level. By educating the correct personnel; reviewing the process by which information is shared; adjusting how our infrastructure or units are organized; and adapting which tools we use to actively see ourselves and off which we fight, our brigades can continue to build efficiencies and make our commanders' ability to execute mission command effective.

Recognizing that KM exists as a process for facilitating more effective mission command has been a slow revelation for many of our formations. Most brigades acknowledge this need, and some even post banners in their tactical operations centers (TOCs) that read, "Who else needs to know?" Unfortunately, most units have not identified a systematic method for getting knowledge to those other units "who need to know," whatever it is that needs to be conveyed.

The KM process, per Field Manual 6-01.1, focuses on identifying knowledge-sharing gaps in four areas: procedures, personnel, tools and organization. While this methodology is vigorously applied at division-level organizations or higher, in brigades KM is often employed as an afterthought or with a very limited conscious scope.

During recent direct-action rotations at the National Training Center (NTC), units have had their KM officers (KMOs) focus almost exclusively on portal management. Though this is a critical element of KM, it really only addresses the tools aspect of sharing information – and ultimately knowledge – with subordinate battalions, companies and platoons. By not addressing all aspects of the KM methodology, brigades have lost much efficiency during their missions. Therefore the purpose of this article is to identify shortcoming trends as they relate to the four focus areas of the KM methodology: people, process, tools and organization.

People

Acknowledging that everyone executes KM to some degree, it is surprising that the KMO's role often relegates to an additional duty. It is most useful to employ a dedicated staff agent to actively look for knowledge-sharing gaps rather than trust to intuition from throughout the staff as a whole. Making the application of KM should be the KMO's dedicated mission. The KMO's capacity to effectively identify gaps and offer solutions often increases if he or she has attended the KM course.

The KMO position at the brigade combat team (BCT) is a 53- (systems automation) or 57-series (simulations operations) major. Regrettably, this billet goes unfilled because of the limited number of officers in these functional areas. It is unrealistic to expect, with the demands for these functional areas at higher echelons, that we will have greater fielding of these positions in the future. Only one out of the four recent Army combat training center (CTC) rotations was filled with the appropriate 57-series officer. This is why most often the KMO is designated as an additional duty. This is acceptable, and in some cases may even be more useful, at brigade level.

Officers identified for the additional duty of KMO generally focus on their primary position. This is most vivid when the additional duty is placed on the S-6 or one of the S-6's personnel. This provides adequate attention on the BCT's portal but does not address other aspects of BCT KM vigorously – or, in some cases, at all. Ironically, KM is being applied by most members of the staff at all times, but the lack of centralized review of all warfighting functions (WfFs) as applied to a mission leaves operations disjointed when they transition from the planning phase to execution.

The critical member for this centralized clearing is the brigade executive officer. The KMO can facilitate the

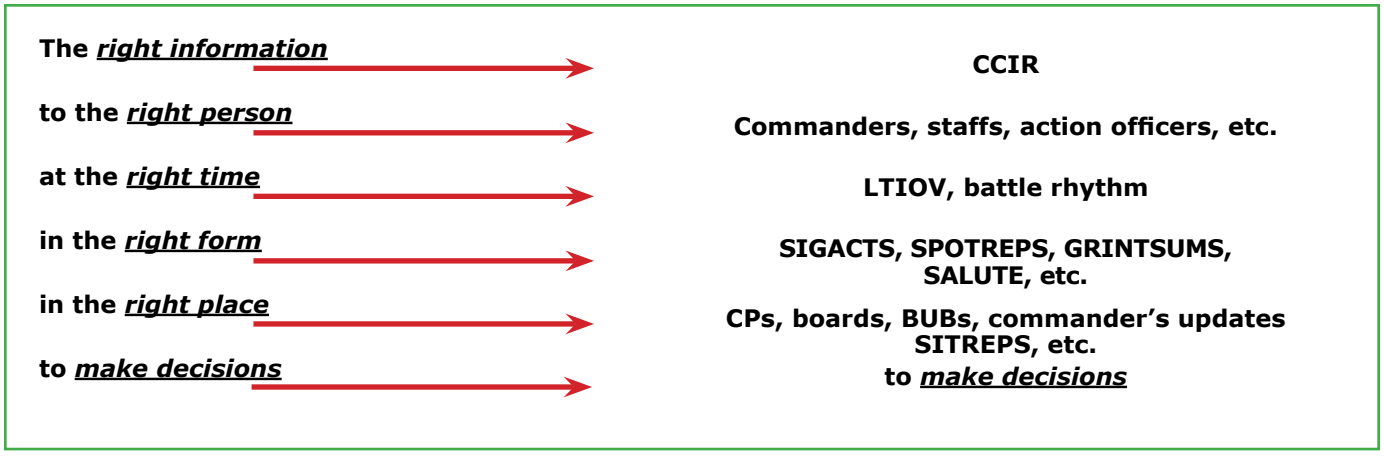

Figure 1. KM facilitates shared understanding at the BCT level best when the scope of KM is known.

executive officer's ability to synchronize efforts throughout the staff by identifying gaps for him that he may have not noticed. One brigade in particular assigned the additional duty of KMO to one of their battle captains. As this officer had constant exposure to all WfFs and sought speedy updates and transfer of orders and data to subordinates, he was able to quickly inform the executive officer. This helped the executive officer leverage his position so he could contact subordinate battalions or even brigade staff agencies to close knowledge-sharing gaps.

We believe that had the battle captain attended the Army Knowledge Management Qualification Course, his utility in identifying gaps in knowledge sharing within the brigade would have been even more valuable.

Process

Not surprisingly, the military decision-making process (MDMP) is adequately understood by our formations at the brigade and lower staffs, as there is a great deal of training and common understanding for the process. Unfortunately, the transition from mission orders to execution is often clumsy and disjointed. Frequently this is due to the executors in the staff not being at rehearsals or understanding the process that developed certain products like the wargame. The most vivid example of inconsistent process is rehearsals. The KMO has rarely been involved in this process for any rotation yet, and this is perhaps the most useful mechanism for gaining shared knowledge with subordinate units.

Brigades execute rehearsals consistently. However, the effectiveness of these rehearsals is often so limited that the synchronization and understanding one would gain from them is lost. Simple review of location, travel time for subordinates, rehearsal format, agenda and noise level all can make the process for executing the rehearsal (whether Central Army Registry (CAR), fires, sustainment, etc.). The trend has been that the planner or operations officer (S-3) assumes this responsibility exclusively.

When the timeline is condensed, the rehearsal's presentation can become very distracting. This is most vivid when many company commanders are crowded about a very small map they cannot see, nor can they hear the speaker addressing them. Using the KMO as the notetaker at a minimum would force him into a position where he could review possible knowledge-sharing gaps. His involvement in set-up would also help identify needless distracters.

Another area where the KMO can apply great value is in working with the commander, executive officer and operations officer in developing a battle rhythm. This is a critical task for KMOs at division-level headquarters. At the brigade, however, the executive officer or S-3 – or sometimes even their subordinates – usually build the timeline and battle rhythm. Though it is not necessary to employ the KMO in this process, it is valuable if one is trying to identify avoidable future gaps.

The most successful brigades have incorporated into their battle rhythms not only their higher headquarters' events but also their subordinate task forces' timelines. By incorporating these timeline events (including key MDMP events), the battle rhythm becomes a tool the planners and the current operations (CUOPS) personnel can use. The process for reviewing the battle rhythm is the element, which is most inconsistent among the brigades who have passed through the NTC. The brigade who had the most valuable battle rhythm had a systematic process for its review, which occurred daily and was adjustable.

Most importantly, the review of the battle rhythm helped the planners avoid disrupting battalion timelines. This process of reviewing the battle rhythm, compounded with useful application of rehearsals, alone created advantages for brigades by facilitating mission command and making units more efficient.

Tools

Given the people and processes applied already at the BCT, these efforts are strengthened through use of effective tools. Many of these tools are constructed during the planning phase and are later refined during rehearsals. All these tools articulate what is most important to their commander's ability to leverage mission command. Furthermore, these tools are a useful way for the commander to focus his staff and subordinate commanders.

While every BCT staff generally constructs running estimates, maps, communications equipment, decision-support matrixes (DSM), execution matrixes, preformatted conditions and checklists, they are inconsistently used. Sometimes brigades fail to use their own tools in the same fashion in a span of hours!

The two areas that have facilitated the commander's ability to make decisions are running estimates and DSMs.

The DSM has enabled brigade and battalion commanders to fight their battles under constrained communications conditions. It is often unrealized that the DSM also helps staffs to quickly make recommendations to their commander and prepare for follow-on events as they relate to everything from sustainment to fires. One brigade in particular was able to maintain momentum during the fight after having lost direct communications with their commander by using their DSM in the tactical operations center (TOC). This helped with vehicle recovery, casualty evacuation and resupply. The command team emphasized this tool at the CAR so it was clear that this was important to the commander, so all the task forces and the BCT staff knew what their commander needed.

However, the trend is not as positive for most units. The norm is that brigades construct a useful DSM that is neither viewed nor understood by all agencies in the TOC or tactical command post (TAC). The degree of surprise when a critical event occurs that is related to a decision point is not, in most cases, a measure of lazy or disinterested staff members. Rather, there is a lack of understanding of how this tool is used. It compounds when staff agencies are not present at rehearsals or cannot understand the plan.

Running estimates also facilitate not only a more speedy application of the MDMP but, just as importantly, help in maintaining a accurate picture of the brigade during CUOPS to paint an

accurate picture for the commander. If used well, the running estimates also share this information and knowledge with subordinate agencies and task forces. KM applied to showing our running estimates is an essential component of building a practical and useful common operating picture (COP). Running estimates for many brigades are often bland quad charts, which are very unwieldy and impractical for conveying knowledge quickly.

The most practical tool brigades use at the NTC are formatted to the type of information WfFs desire to convey, as well as having a process through which updated data is identified and captured quickly – like consumption reports over the Battle Command Sustainment Support System, or combat slants submitted over Jabber and Force XXI Battle Command Brigade-and-Below (FBCB2). The least successful tools – and unfortunately the trend – are running estimates that exist on a staff agency's laptop but are never referenced anywhere or updated in the main command post.

This was mostly visible with one brigade where the staff did not have accurate running estimates for any WfF. The brigade commander felt far more comfortable excluding the staff completely because he had little faith in them.

To mitigate the trend of poor and not-useful running estimates, the KMO is useful as the briefer of these tools at battle-update briefs or even commanders' update briefs. This would allow the KMO to interact with the commander, executive officer, S-3 and subordinate commanders to ensure receipt and distribution of the knowledge the commander seeks.

Organization

Efficiency is also built by the adjustment of our organization within the brigade. Normally, this is viewed as a method for addressing task organization. The most common KM-specific adjustment to our task organization is the movement of retransmission elements, depending on what nets the brigade desires to transmit and adjusts according to the transitions brigades anticipate during their fight (like movement-to-contact into the defense).

The trend, though, is that the retransmission nodes are forgotten until later in the MDMP so that transitions become sloppy. This adversely affects communications and forces commanders to resort to other methods on their primary, alternate, contingency and emergency communications plan, as well as the other warfighting functions when passing reports.

However, task organization is just one aspect where KM can increase efficiency. The actual layout of some of our facilities in some cases provides for incredible increase in effectiveness for sharing knowledge. One vivid positive example of this deliberate reorganization of structure relates to one rotation's BCT main command post.

Every BCT maintains an analogue mapboard in the main command post on which their battle captains, executive officers and commander fight from and track when not focusing on the digital COP. Sadly, this map is generally an afterthought and lacks utility other than as a failsafe. It is most often ignored.

This was not the case with one BCT, which chose to place the map in the middle of the main command post floor in front of the digital displays but behind the battle captains' row. This initially seemed awkward but turned out to provide much better situational awareness for all staff agencies. The executive officer who fought off the analogue map could look up to get confirmation from the FBCB2 feed as well as other running-estimate displays. The staff was arrayed around the map so all WfFs were involved, so they were able to quickly offer recommendations to their commander.

With the TOC's arrangement and KMO's presence, the reconciliation of the pictures the TAC and TOC see may be addressed more easily.

Realistically, our units can increase their effectiveness by applying a systematic view of KM at brigade level. By educating the correct personnel; reviewing the process by which information is shared; adjusting how our infrastructure or units are organized; and adapting which tools we use to actively see ourselves and off which we fight, our brigades can continue to build efficiencies and make our commanders' ability to execute mission command effective.

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Acronym Quick-Scan

BCT – brigade combat team
CAR – Central Army Registry
COP – common operational picture
CTC – combat training center
CUOPS – current operations
DSM – decision-support matrix
FBCB2 – Force XXI Battle Command Brigade-and-Below
KM – knowledge management
KMO – knowledge-management officer
MDMP – military decision-making process
NTC – National Training Center
TAC – tactical command post
TOC – tactical operations center
WfF – warfighting function

Figure 1. Blackhorse troopers assigned to C Troop, 1st Squadron, 11th Armored Cavalry Regiment, take the high ground to prepare to engage in the final battle with 2nd Brigade, 4th Infantry Division, on Fort Irwin, CA, June 28, 2013. *(Photo by SPC David N. Beckstrom, 11th ACR Public Affairs)*

Observations from the Opposing Force

by CPT Andrew J. Rossow and CPT Amos C. Fox

This article is designed to assist the maneuver community as the Army continues to develop how it will fight in the new decisive-action (DA) format. The authors, two former troop commanders, are two of the most tactically proficient troop commanders when it comes to the basics of mounted maneuver. Both are combat veterans previously assigned to the National Training Center (NTC) when the first DA rotation kicked off and have been involved in its continual growth. Their article highlights many of the observations they made and capitalized upon, and which our current troop commanders now use to increase success on NTC's battlefields.

The general observation is units that focus on the basics and understand doctrine are much stronger and more successful during combat operations. This also applies to units that have been able to identify and emplace training programs that make up for the current shortfalls of field training in the schoolhouse and the current atrophy of maneuver experience within the mounted force. NTC is committed to training excellence and, with that said, we all stand ready to help train the force. We will not give you all the answers out of loyalty to the Blackhorse Regiment/11th Division Tactical Group. Instead, we provide you with several ideas that have proven critical in mission success or failure. Take these observations into theaters of operation for deploying units, as they hit on commonalities in stories of success and failure observed in Iraq and Afghanistan in recent years. –LTC Frederick R. Snyder

Know your capabilities / shortcomings

As a troop / company / battery commander, you have to know your capabilities: which of your platoons is the strongest, which has the most aggressive leadership, who are the most capable gunners. More importantly, you have to know your shortcomings: which platoon has discipline problems (and how will that affect your mission),

which platoon has maintenance issues (and why), who can't figure out how to get out of the tactical assembly area.

Answering questions like these objectively will allow you to assign responsibilities to individuals and platoons based on capabilities instead of arbitrarily. Keep open lines of communication with your junior leaders. Inspect their training. Watch how they execute command maintenance.

One key factor enables each of these: command presence. Removing yourself from command maintenance or other training events – relegating yourself to an office troll – denies your troops your guidance and sets precedence for your junior leaders to do the same. For platoon leaders, this is especially important. Fighting your platoon is your responsibility and, as such, you need to know in every mission the distance at which each one of your vehicles is capable of destroying enemy vehicles (by type).

Be ruthless in the boresight battle rhythm. Know which gunners can kill at distance and who is better off keeping their shots to less than 1,500 meters (and needs continued training). This will allow you as the commander to place vehicles / personnel where they are most effective – where they can place precision, lethal fires on a one-shot, one-kill basis, ultimately conserving ammunition and reducing your exposure to enemy forces, especially in the defense. Direct fire control is the name of the game, and knowledge of your vehicle / personnel capabilities has to be part of your playbook.

Use your tools

In our age of technology, you should never enter a new area of operations blindly. If you do, shame on you. There are many accessible tools to enable you and your junior leaders to have a decent concept of the terrain you are entering well before you enter it. Maps are excellent tools, but graphics / imagery are better. If you cannot visualize the terrain and help your junior leaders do so, the enemy will have an early upper hand in the fight. They will likely know the terrain. Force XXI Battle Command Brigade and Below (FBCB2)-Blue Force Tracking (BFT) / Joint Capability Release (JCR) bring excellent situational awareness to the battlefield. Not only do these tools give you the capability of tracking your unit's progress, they work great for mission planning and movement control.

Also, unclassified Websites like Google Earth and Hawgview give you the capability to "see" the terrain before you are sitting on it or driving through it. Seeing the complexity of the terrain through tools like these can prevent planners from committing blunders like attempting to send a combined-arms battalion through a maneuver corridor only capable of passing a section (true story) or placing a mounted defensive position in terrain that cannot be accessed by wheeled or tracked vehicles (another true story). Further, these tools give subordinate leaders much better situational awareness than simple maps can provide. They allow your team to visualize how the fight will be conducted and thus allow them to fight decision-point tactics.

Figure 2. Troopers from C Troop, 1st Squadron, 11th Armored Cavalry Regiment, occupy defensive positions overwatching Brown/Debnam Pass. *(Photo by CPT Andrew J. Rossow, C Troop, 11th Armored Cavalry Regiment)*

Boresight, boresight, boresight

In Rotation 12-05, the first DA rotation at the NTC in years, Charlie Troop destroyed a significant portion of an advancing rotational training unit (RTU) battalion as they began to enter the central corridor. Poor tactics? Superior position? No and no. The RTU company / team leadership had decided not to boresight their tanks and Bradleys. Amazing. They had gone through a deliberate planning process for the initial brigade-level movement-to-contact, conducted troop-leading procedures from brigade to platoon level, backbriefed their leadership, executed rehearsals, etc. This company, no matter how well planned their mission was, no matter how well prepared they were (outside of boresighting), was completely ineffective.

How one would consider deliberately not boresighting acceptable is astounding, but the fact remains and has been observed many times on a smaller scale since then.

Any leader who has sent his troops to the range can attest to the significance and the results of quality preliminary marksmanship instruction training. If a Soldier does not boresight his weapon, he will likely see extended time, heightened frustration and a waste of ammunition on the range trying to zero and qualify. Take that idea to an Abrams tank or a Bradley when normal engagement ranges are around 10 times that of small arms. There are processes and techniques to boresighting that units must be able to execute quickly and to standard before deploying on field-training exercises and before individual missions. It is a Gunnery Skills Test standard that must be met for gunnery and, thus, should be considered a gate to a crew moving out to execute any mounted maneuver training.

Boresighting is essential to unit success and requires practicing multiple times per day. Add it to your battle rhythm. Execute it after any major movement and / or prior to any mission. It is a no-fail event.

Think red

For the staff, this means wargame. The commander cannot make decisions unless he has a good idea of how the enemy will fight. At the battalion / squadron level, this means acting out the battle from start to finish (and beyond)

Figure 3. SFC Patrick Flanagan directs his gunner, SPC Tanner Corneilson, into a hull-down position dug by the 11th Armored Cavalry Regiment's 58th Engineer Company, while Soldiers from the regiment's smoke platoon provide obscuration from overhead threat. *(Photo by CPT Andrew Rossow, C Troop, 11th Armored Cavalry Regiment)*

to understand what possible courses of action the enemy may execute; what / where / when the key decision points will come; and what the constraints are (by staff function and by warfighting function) to provide the commander with the best course of action to enable his intent and achieve his end-state.

At the company / troop / battery level, this means doing your homework. Understand the enemy: what is he bringing to the fight, what are his tactics, what are the capabilities of his weapon systems?

To understand how the enemy will fight, you must also understand the terrain. Get with your S-2 and build your modified combined obstacle overlay, your doctrinal template and your threat template. Put your red hat on and fight your battle in reverse. Where is the key terrain and how will it impact the fight? If you were the enemy, how would you move – would you sacrifice security for speed, or would you hold up to secure dominant terrain? Where and when would you be vulnerable?

Be prepared to discuss a thorough enemy situation in your order and during your rehearsal. A common understanding of the enemy's disposition, task and purpose will enable your subordinate leaders to understand the order of battle, feed your information requirements and initiate / react to contact when the battle comes. Do not shortchange your junior leaders or yourself with a substandard enemy picture or a weak rehearsal.

Get outside the wire and walk / drive the perimeter

You would not believe how many units occupy a defense, set in their positions or conduct engagement-area development without "leaving the wire." At NTC or in a theater of operations, you may occupy a forward operating base, joint security station or patrol base that has a full perimeter with defensive positions already established. Consider this a gift if it happens to you and your Soldiers.

However, do not get lazy. The contemporary operating environment force (COEFOR) has sat at the top of many common operational pictures, surrounded by flashing / screaming personnel and vehicle Multiple Integrated Laser Engagement Systems, listening to a commander attempt to explain why he thought it was OK not to leave the wire when he established his defense. You may think you can see everything from the height of your command post, from your location in your defensive position or from the imagery you're getting from your Raven / Shadow / Predator feed.

Simply put: You are wrong.

The enemy knows where you are. You're on his turf.

You cannot adequately execute any of the seven steps of engagement-area development without getting out and walking / studying the terrain. Maps and graphics are excellent tools for planning, and will usually allow you to initiate your priorities of work, but once you hit the ground, it's time to either confirm or deny your plan and execute or change your course of action. There is only one place at NTC where you should place more than 75 percent trust in a map: in the rotational-unit bivouac area. The terrain is more diverse than you think. The terrain is more diverse than the COEFOR thinks, and the COEFOR has been in more places than most. Get out, walk the terrain, study your dead space. Understand the terrain and its effects. That dead space you identify is more than likely where the "insurgents" or COEFOR are or from where you will first take fire. Identify it and mitigate it. To make it easy, walk / drive the perimeter and talk to each of your positions. Determine where you can observe / be observed, where you can engage / be engaged, where you can do neither, and how to mitigate. Do not be lazy.

Flexibility and mission command

Some would take great advice while listening to a speech from retired COL Douglas MacGregor (S-3 for 2/2 Armored Cavalry Regiment (ACR) during the Battle of 73 Easting): "The key to success in war is to stay so far forward, and to go so fast, that higher command cannot possibly contact you and interrupt your advance." What sound advice. Yet, when fighting in the box at NTC, we often do not have the luxury of space to break away from our headquarters. Therefore, a key to succeeding in the box is being as flexible as possible. As a company / troop / battery commander, you have to be able to adapt to the ever-changing battlefield and the ever-changing guidance from your higher headquarters.

The key to flexibility is mission command. What mission command means

to the COEFOR is to provide our subordinates with clear and concise order and graphics, and then get out of their way to let them fight the fight.

Oftentimes as commanders, we get caught up in developing grandiose orders and the result is: a) wasted time; b) confusion in everyone but you; and c) subordinate leaders focusing too much attention "down" (looking at their notes, orders, mapboards, etc.) instead of looking "out" (fighting the battle in front of them).

Keep your operations orders succinct. Focus on a solid concept of the operation (purpose, form of maneuver or defensive technique, risk, decisive operations, shaping operations, sustaining operations), a simple scheme of maneuver and defined tasks / purposes.

Eliminate the fluff or filler that often accompanies commander's intent – a bunch of key tasks that are neither key nor tasks – and the hyperbolic end-state. A way to write commander's intent is in this fashion: here's what I want you to do, why I want you to do it and why it's important; here are a few key things we must accomplish to win this battle; and here's where we need to be at the end of the battle (focused on enemy, terrain, civilians). At the end of the day, if your platoon leaders and other subordinates understood what you are trying to accomplish and why you are trying to accomplish it, the battle will unfold in your favor.

From the tank commander (TC)'s hatch, COEFOR leaders have observed that many rotational units did not execute mission command in this fashion, nor did they have simple orders. It looked as though when making contact, the rotational units stalled as their leadership retraced their complex plans to find how they planned to react – instead of simply reacting.

The final piece of advice is about flexibility and not losing on the battlefield at the NTC. This is based on simplicity yet again: have simple graphics and use technology regarding your graphics. In the box, there is no need for a plethora of phase lines, checkpoints and routes. During the movement-to-contact during Rotation 12-05 against 3/3 Infantry Division, which had Delta Company maneuvering the length of the box from west to east, there were seven phase lines. Delta Company also used the on-board technology (FBCB2 / JCR), tying phase lines to grid lines. This goes against conventional wisdom, but the company felt it was much easier for TCs to self-locate and report their positions after a quick look at an easily identifiable phase line on their JCR. Even when there were no JCRs, every TC had a Defense Advanced Global Positioning System Receiver (DAGR). The phase line on a grid line made reporting with a DAGR far easier for the TCs.

The troop commanders assigned a few target reference points tied to easily identifiable pieces of terrain. This enabled an easily understood front that greatly enhanced reporting ability, which greatly enhanced situational awareness.

Much like a simple order, simple graphics allow TCs and leaders to focus their attention outward on the enemy and not downward at their mapboards. By focusing outward, TCs and leaders are able to react to what is unfolding before them – making them flexible leaders, not occupied leaders.

Flexibility is a key to success when fighting on a complex, ever-evolving battlefield. A key component of flexibility is an effective use of mission command. The best way to make mission command work is to focus on simple plans and orders and on simple graphics, and to trust your subordinates to take the fight to the enemy.

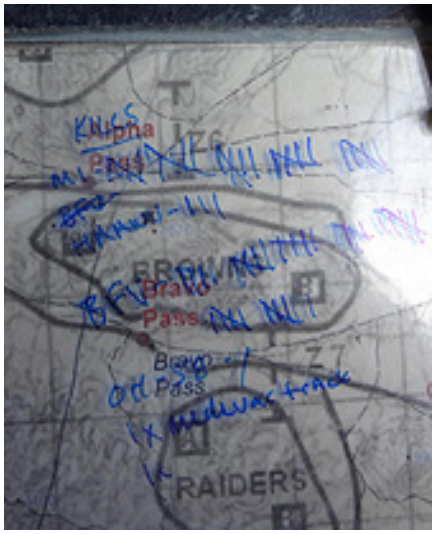

Figure 4. The 11th Armored Cavalry Regiment's overwhelming success is evident in this battle-damage assessment taken during the first movement-to-contact mission in Rotation 12-05. *(Photo by CPT Amos Fox, D Troop, 11th Armored Cavalry Regiment)*

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Acronym Quick-Scan

ABCT –armored brigade combat team
ACR – armored cavalry regiment
BFT – Blue Force Tracking
COEFOR - contemporary operating environment force
DA – decisive action
DAGR – Defense Advanced Global Positioning System Receiver
FBCB2 – Force XXI Battle Command Brigade and Below
HBCT – heavy brigade combat team
JCR – Joint Capability Release
NTC – National Training Center
OLC – oak-leaf cluster
RTU – rotational training unit
TC – tank commander

How We Got Here and Where We Are Going: a Doctrinal Approach to the Health of the Force

by CPT Keith Eisenberger, CPT J.P. Steadman and CPT Nick Knepp

The Army's health of the force (HoF) has been in a steady decline since combat operations in Afghanistan began about 12 years ago. In the past nine years, suicide and divorce rates have risen at an alarming rate. In addition to this, drug and alcohol, financial and legal issues continue to plague the military. Recent Department of Defense initiatives have had a slight impact to reduce these trends, but even as deployments decrease in Afghanistan, crises and catastrophic events will continue to increase unless leaders find a way to be proactive and identify issues before they escalate further.

The bottom line is that leaders must reconnect with their Soldiers and really know them to apply risk mitigation to the individual Soldier and family. Using a doctrinal mission-essential task list (METL) development approach, the troop commanders of 4th Squadron, 3rd Cavalry Regiment created a HoF METL that outlines battle tasks to the individual level and sustains an enduring operation that enables a better understanding of our Soldiers.

Background

Vice Chief of Staff of the Army (VCSA) GEN Peter W. Chiarelli conducted tours of six installations in 2010 with the purpose of looking at how the force was dealing with the increase in suicides. He determined the Army was out of balance concerning health promotion, risk reduction and suicide prevention programs and services. What he and his staff witnessed firsthand was that there were "real indicators of stress on the force, and an increasing propensity for Soldiers to engage in high-risk behavior."[1]

Chiarelli realized that leaders could not target suicide prevention alone and that the Army must look at other factors to be successful. To reduce these problems, the Army needed a holistic and multi-disciplinary approach to address each issue. Also, leaders at every level must practice an engaged leadership style. The ***Army Health Promotion Risk Reduction Suicide Prevention Report*** (Red Book) confirmed the need "for a coordinated effort across the Army to promote good order, discipline and health of the force."

GEN Lloyd J. Austin III, the current VCSA, recently said: "Leaders across our Army recognize that the health of our Soldiers, Army civilians and family members is a top priority. We remain committed to doing what is needed to

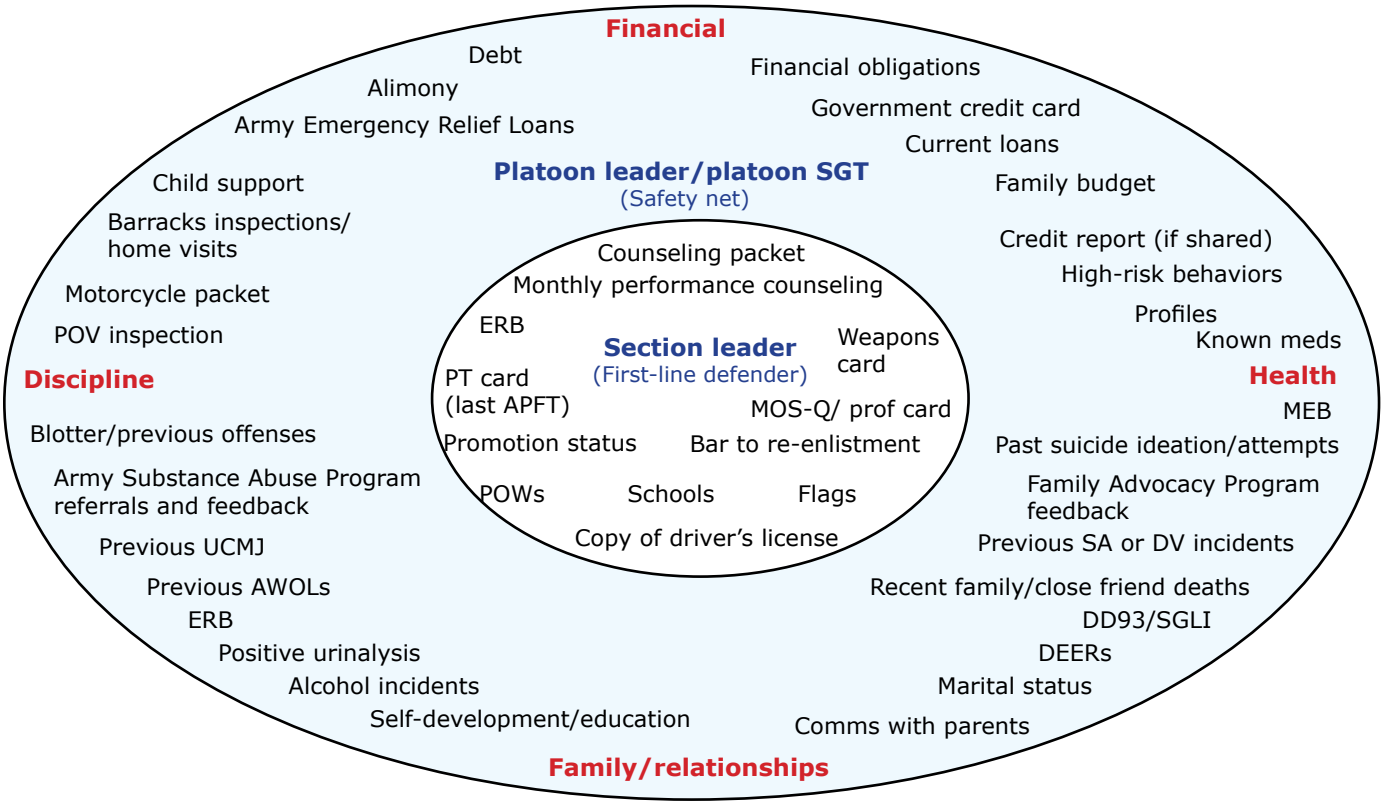

Figure 1. Internal and external mechanisms that leaders at platoon level have at their disposal. *(from 3rd Cavalry Regiment's **Mounted Rifleman Counseling Guide**)*

care for our most precious asset — our people — thereby ensuring a healthy and resilient force for the future."[2]

More than a decade at war, resulting in a high operational tempo, meant we had less time to dedicate to HoF. This has led to knowledge gaps in our systems concerning how we identify, engage and mitigate high-risk Soldiers. There are many reasons why knowledge gaps have formed. For example, there has been a breakdown at military schools on negotiating the art of leadership in garrison. Policies, processes and programs have not kept pace with the expanding needs of our strained Army. This has led to a population of high-risk Soldiers who erode Army values and unit readiness.[3]

Also, Soldiers and families are feeling the stress of a decade at war and multiple deployments. According to the Army Red Book, "The cumulative effect of transitions borne of institutional requirements (professional military education, permanent-change-of-station moves, promotions), coupled with family expectations / obligations (marriage, childbirth, aging parents) and compounded by deployments is, on one hand, building a resilient force while on the other, pushing some units, Soldiers and families to the brink."[4]

It is readily apparent that leaders at all levels are not engaging Soldiers to the level that would adequately identify associated risk. Also, we are not leveraging the multitude of available established resources required to build a holistic picture of the Soldier. As a result, leaders are uninformed or do not understand the connectivity and the risks of crises and frictions. Leaders must be aware of all these aspects of their Soldier's lives to know them better. Entrusted in our care are our nation's sons and daughters. Despite our optempo, we must not neglect this monumental responsibility.

Commanders in our squadron used a tool called "connecting the dots" to know our Soldiers. The "connecting the dots" tool was created by the 3rd Cavalry Regimental staff as part of the regiment's ongoing HoF campaign and as a part of the regiment's ***Mounted Rifleman Counseling Guide***. Depicted in the figures are the "connecting the dots" tools that Longknife Squadron used. Figure 1 depicts the internal and external mechanisms leaders at the platoon level have at their disposal. Likewise, Figure 2 portrays the tools a commander and first sergeant can use.

Recent trends in our regiment resulted in our regimental commander issuing a HoF, resiliency and leader-development training period so we could assess trends and issues with our Soldiers. We found out we did not "know" our Soldiers. There is only so much that monthly counseling can do to help leaders understand their Soldiers, especially if done on the margins and when commanders to not emphasize or dedicate the appropriate time. Unless you comprehensively immerse yourself in your Soldier's life, you will never fully know your subordinates.

You have to learn to ask the tough, uncomfortable questions that get to the root of the friction. Through the HoF campaign, our squadron assessed nine more high-risk Soldiers. This was a result of us connecting the right dots. Our Soldiers realized we now had a stake in the HoF campaign and in our Soldiers, which fostered a climate conducive to candidness, honesty and trust between leaders and subordinates. Soldiers were increasingly open with leaders about their personal lives, thus allowing a collective core of responsive and caring leaders to act in a proactive manner and leverage appropriate agencies and resources to help Soldiers and families in need. Without these measures, we would not have been able to identify that these additional Soldiers within our formation were at high risk.

Thus, we were able to identify the problem facing our junior leaders at the company, platoon and squad level: How do we assess HoF within our organization? No tool in the Army exists that gives you ability to address this issue. There are tools out there to aid commanders in understanding our Soldiers (Gold Book, Red Book, etc.), but there is currently nothing structured to

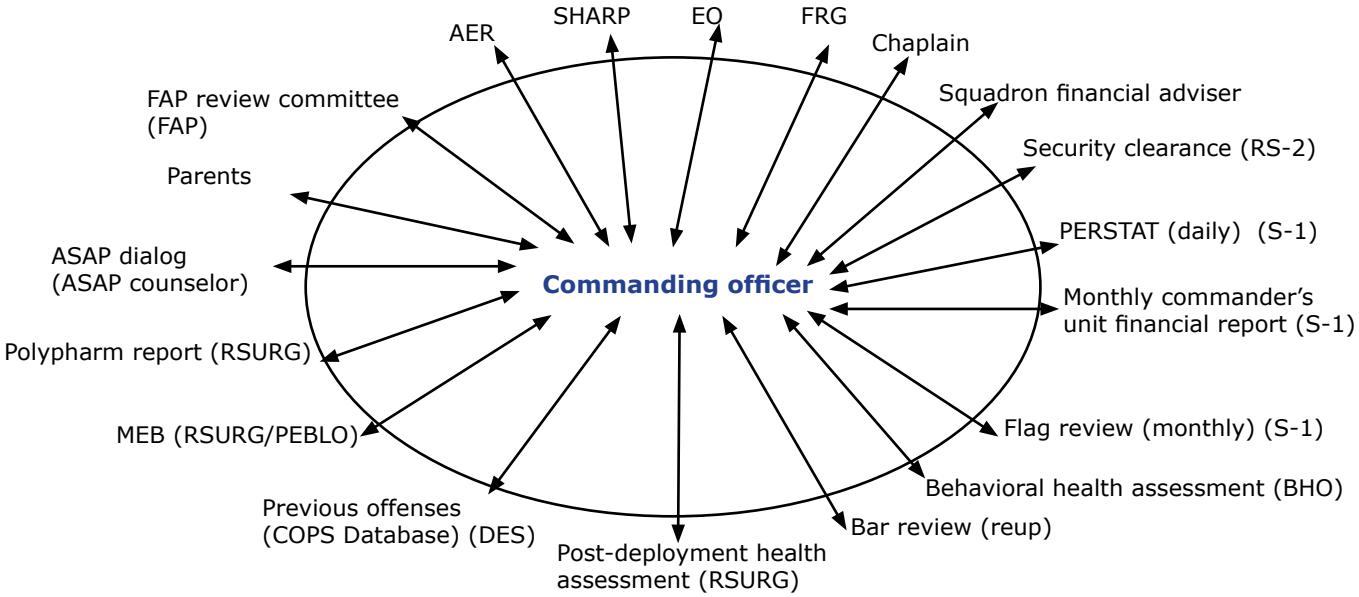

Figure 2. Weapon systems the commander brings to the fight. *(from 3rd Cavalry Regiment's **Mounted Rifleman Counseling Guide**)*

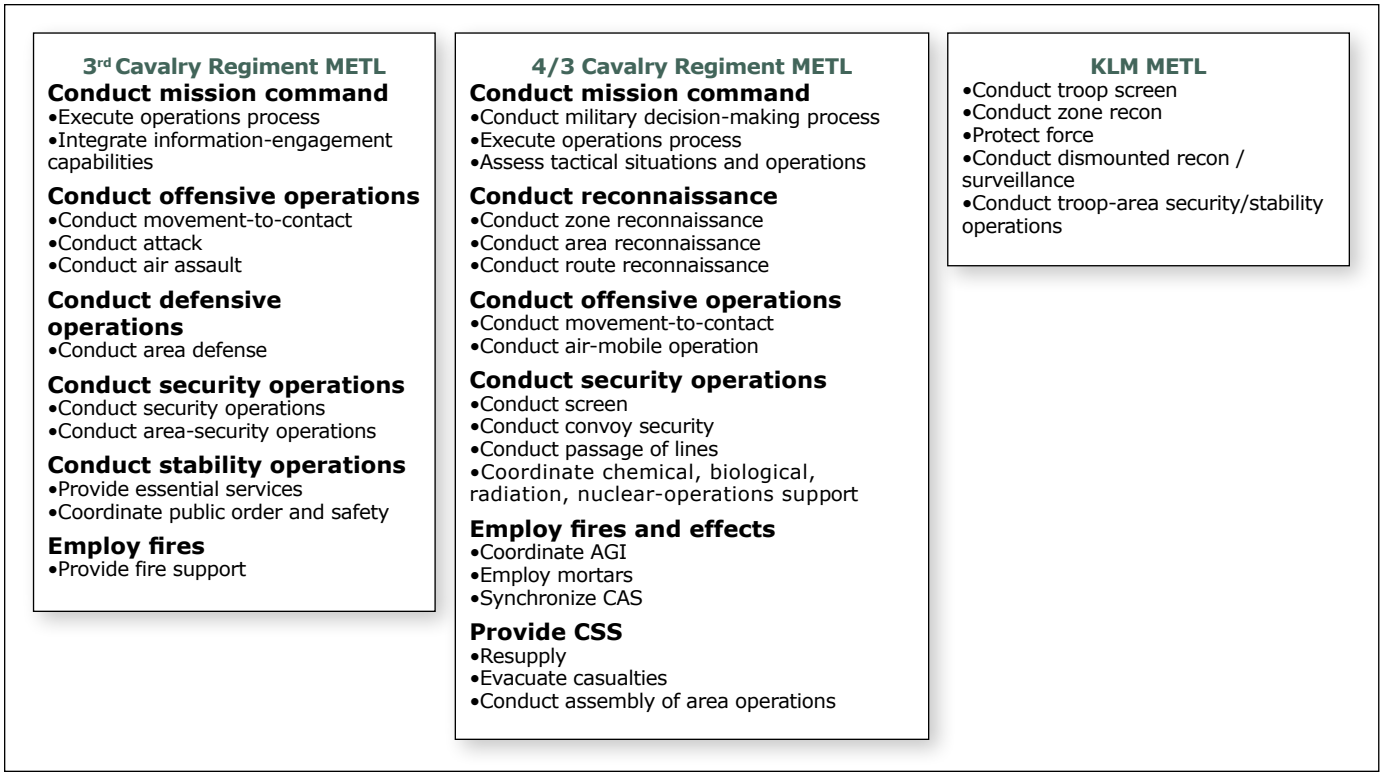

Figure 3. HoF METL linkage. *(from HoF organizational brief 2013, 4th Squadron, 3rd Cavalry Regiment)*

give direction and understanding of where an organization stands in terms of taking care of its Soldiers. The squadron began to develop a METL devoted to HoF as a systematic approach to better assess and identify gaps in engaged leadership in our organizations.

METL development

All units have a METL that guides their warfighting training strategy. The doctrinal-based METL all units must train on is the core mission-essential task list (CMETL). "A CMETL is a list of a unit's core-capability mission-essential tasks and general mission-essential tasks. Units train on CMETL tasks until the unit commander and next higher commander mutually decide to focus on training for a directed mission," according to Army Doctrine Publication (ADP) 7-0.[5] Most units can review their CMETL through the Combined Arms Training Strategies (CATS) viewer on the Army Training Network (ATN) Website.

After reviewing their CMETL, commanders choose which tasks they are going to train, ensuring they are nesting within the squadron CMETL. METL development is the process of deciding which of the available tasks must be completed to accomplish the overall mission. Figure 3 depicts our regiment's nested METL.

The three reconnaissance troops within 4th Squadron, 3rd Cavalry Regiment, established a METL nested within the squadron's METL and determined which collective tasks to train. By following this process, commanders created specific guidance for what needed to be trained to meet mission requirements.

The commander finally plans, resources and coordinates for the training necessary to allow the unit to gain proficiency and meet established higher-echelon training gates. Again, the CATS viewer on ATN helps by providing performance measures for each METL collective task, and example situational training exercise and live-fire exercise evaluations for each task. Commanders ensure their unit is well trained by following the doctrinally approved METL and performance measures.

METL development in HoF context

As new commanders, one of the highlights of command was when our squadron commander empowered us with the autonomy and trust to develop our troop METLs. We then applied lessons we learned in METL development of our wartime mission to developing our HoF METL to quantitatively evaluate our organizations, and we challenged ourselves to understand each of the HoF METL tasks completely, starting from ground zero.

What started with mere thoughts on a whiteboard soon became an organizational vision and initiative from our squadron commander. The squadron senior leadership developed four squadron HoF mission-essential tasks:

- Health and discipline surveillance and detection;
- Health promotion and referral;
- Administration and disciplinary actions; and
- Good order and discipline.

This was fundamental for the HoF METL development campaign. The squadron commander brought the troop commanders into the squadron conference room and provided us:

- The regimental commander's guidance;
- ***The Mounted Rifleman Counseling Guide***;
- Army Gold Book;
- ATN;

- Army Regulation 600-20, ***Command Authority***;
- AR 6-22, ***Leadership***; and
- The squadron HoF METL.

He then tasked us to develop a troop HoF METL that was nested within the squadron HoF METL and a comprehensive METL crosswalk reflective at the platoon, section, leader and individual levels. Figure 4 depicts our HoF squadron campaign plan.

Due to a determined and professionally enlightened dialogue among the troop commanders, we established five troop-level HoF METL tasks (discussed more, following) that nested within the squadron METL:

- Execute command authority;
- Conduct fit-for-duty assessment;
- Integrate internal and external enablers;
- Facilitate rehabilitation or transition; and
- Sustain a positive organizational culture climate.

Figure 5 depicts the troop-squadron HoF METL linkage.

It was important to draw from our decisive-action METL the appropriate action words and create mirrored verbiage between the two METLs. We ensured leaders at all levels of the organization understood the HoF by using the appropriate action words. (Descriptive action words enable us to better understand the tasks.) Figure 6 displays how the action words are relative between the HoF and tactical METL.

Listed following are the troop HoF METL tasks we developed. These are the most relevant tasks that allowed us to understand our Soldiers better. The great thing about METLs is they are adjustable to different units. These tasks can easily change from one organization to another.

Execute command authority. As commanders, we have the privilege of command authority, and with that authority comes great responsibility. How commanders handle responsibility has a profound effect on our organizations. The policies and procedures we implement shape the organization as well as the vision we project. The magic word for commanders is "readiness." How we maintain readiness as an organization, in terms of training and keeping our force healthy, is paramount to our ability to be successful in combat.

Conduct fit-for-duty assessment. We cannot effectively support our Soldiers unless we truly know and holistically understand the individual. Effective counseling is the key when conducting fit-for-duty assessments. Only through engaged leadership and leveraging all available resources can we better support and care for those within our ranks.

Integrate internal and external

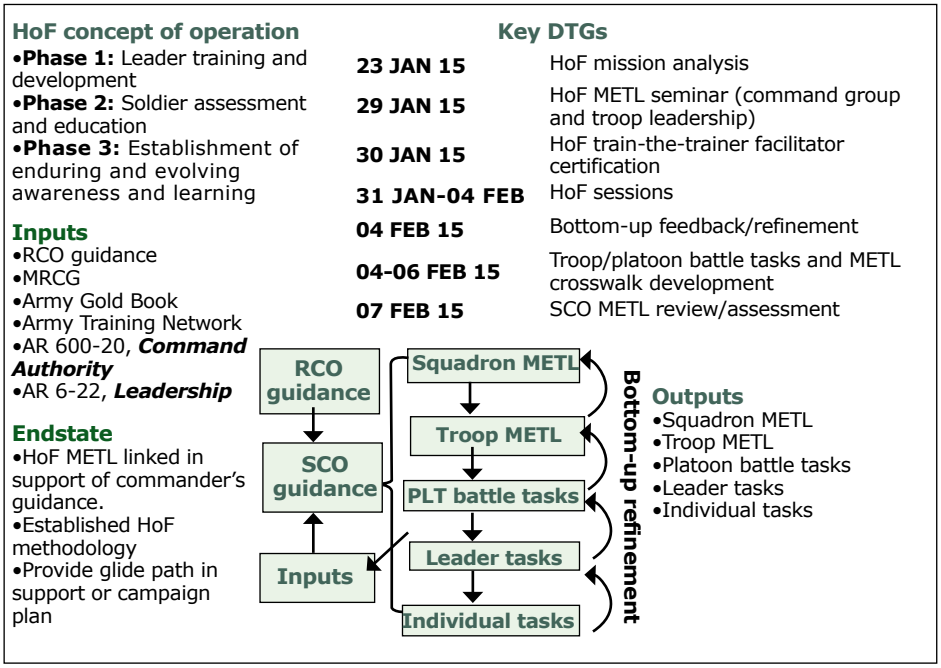

Figure 4. HoF METL development campaign plan. *(from HoF organizational brief 2013, 4th Squadron, 3rd Cavalry Regiment)*

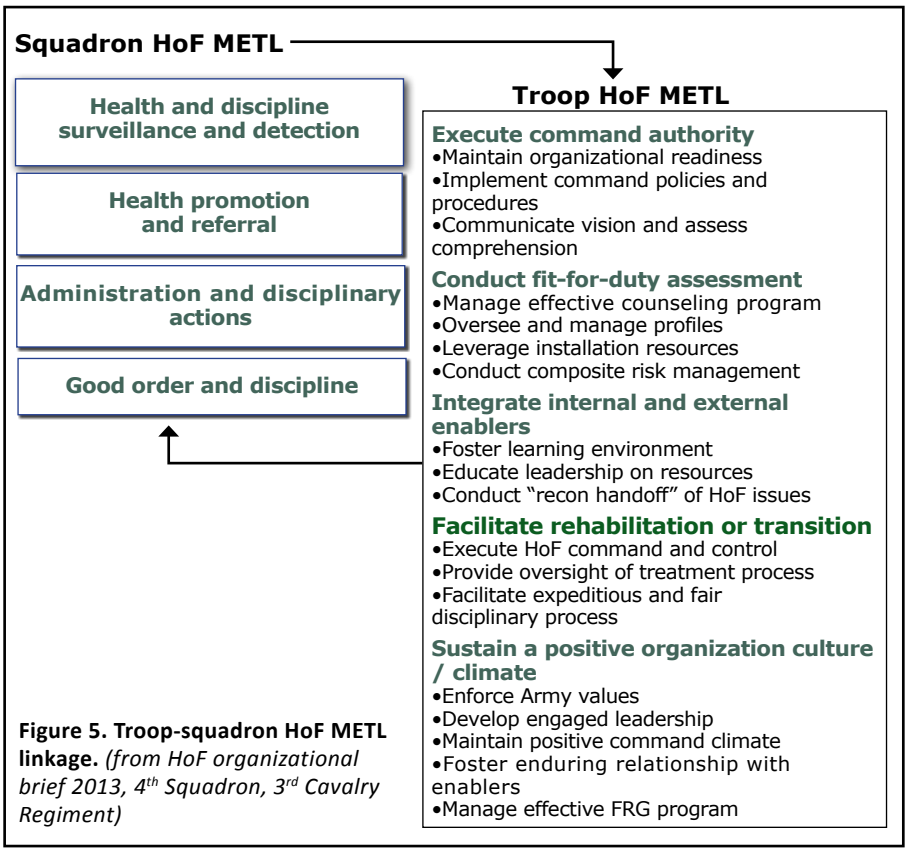

Figure 5. Troop-squadron HoF METL linkage. *(from HoF organizational brief 2013, 4th Squadron, 3rd Cavalry Regiment)*

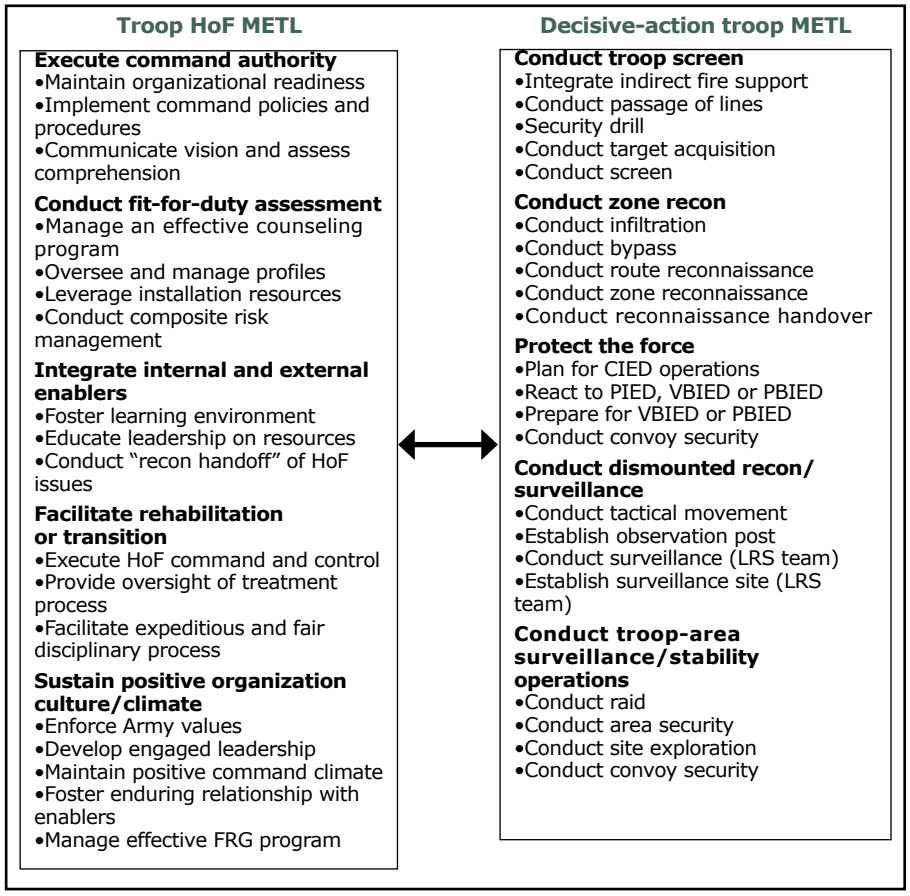

Figure 6. METL comparison. *(from HoF organizational brief 2013, 4th Squadron, 3rd Cavalry Regiment)*

enablers. Our military installations do a fantastic job of offering our Soldiers a myriad of facilities and resources in which to receive help and support. Too often, leaders do not fully understand or are unaware of the different enablers present on various posts. We identified this as an issue that prevents Soldiers from receiving the appropriate support for the various stressors in their lives.

The knowledge of what the installation has to offer is only the beginning. To best support our Soldiers and their families, we as leaders must have a dialogue with the provider, counselor or individual involved in helping our Soldiers. Only then can we truly streamline the assistance the Soldier is receiving and respectively increase their resiliency. It is a collaborative effort between the commander and the provider.

Facilitate rehabilitation or transition. Our job as commanders is ultimately to manage the operational readiness of our unit. It is our responsibility to identify Soldiers needing to transition out of the Army or transfer to a unit better able to assist them in rehabilitation. Leaders at all levels need to understand the completion of tasks that are necessary to provide the unit with a timely transition of the Soldier out of the unit or rehabilitation back into the force. We must be cognizant not of the health and well-being of the Soldier but of the unit's health and the damage done by delaying transition or rehabilitation.

Sustain a positive organizational culture / climate. This is the decisive task of troop HoF METL – the foundation around which HoF is centered. It is important to note the difference between a unit's culture and climate. The climate is defined by the command team and will change when leadership changes. The culture is enduring and inculcated among Soldiers in the unit. The culture of an organization is much harder to change and will most likely survive the turnover of leadership. We strive to create not only a positive command climate but also a positive culture – one able to withstand poor leadership when it inevitably occurs.

To make an effective product, a leader must obtain bottom-up feedback, allowing for Soldier and organizational buy-in. Once we had solidified the troop HoF METL, we introduced it to the leadership within our ranks. We brought in our platoon leaders and platoon sergeants and began the development of realistic platoon-level "battle tasks." Where we deviated from normal METL development was in the creation of a "leader" task. Leaders of all levels within our organizations must execute these tasks to be successful within the framework of our HoF METL.

The leader tasks proved to be easier than the initial troop METL tasks to identify because we received input from the individuals who execute HoF tasks every single day – they just had never put a name to it. We again deviated from normal METL development process by not crosswalking each task down to the individual level. Quite simply, we identified that some tasks would not have an associated section or individual task. Upon completion of our backbrief to the squadron commander, we arrived at a nested and aligned troop METL consistent with a crosswalk down to the individual level.

Figures 7 (Page 51) and 8 (Page 52) depict the troop HoF METLs of the tasks "execute command authority" and "facilitate rehabilitation or transition" with complementary collective, leader and individual tasks.

Conclusion

HoF is important not only to the Army but to the military as a whole. Unless leaders ask the hard questions and spend time getting acquainted with our Soldiers, we will never really know them. When we do not know our Soldiers and what issues they have, we are doing a great discredit to our Soldiers, their families, the Army and the nation. By adopting a similar approach to our HoF campaign and creating their own HoF METL, leaders at all levels can increase their understanding of their Soldiers and identify any possible high-risk stressors or activities. What we were able to produce was a comprehensive, quantitative HoF METL we

could use to assess both our Soldiers and organization. We developed a tool that provides us with an effective way to lead our troops safely. Without a healthy force, we will never achieve the operational readiness needed to fight and win our nation's wars.

Our process leaves room to grow. It may not be the way, but it is a way we were able to use to better know our Soldiers and identify, then mitigate, risk in their personal and professional lives. Any unit in the military can take our process and adapt it to its own organization. As Chiarelli said, "We must all be vigilant of the perils associated with a stressed force. Leaders at all levels must stress accountability. You must continue to aggressively surveil, detect and intervene to, first, promote health and well-being and then, second, reduce the risk to the individual and others."[6]

The HoF METL development initiative has led to reinvigoration of leadership skills, validation of our counseling programs and understanding of our Soldiers. The HoF METL is the tool that allows us to survey, detect and ultimately intervene as leaders within our organizations.

Notes

[1] ***Army Health Promotion Risk Reduction Suicide Prevention Report***, 2010 (Red Book).
[2] Frady, K., ***Suicide Prevention: a Healthy Force is a Ready Force***, Sept. 4, 2012.
[3] Red Book.
[4] Ibid.
[5] ADP 7-0, ***Training Units and Developing Leaders***, August 2012.
[6] Establishment of Army Campaign Plan for Health Promotion and Risk Reduction FY11.

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Acronym Quick-Scan

ADP – Army doctrine publication
AR – Army regulation
ATN – Army Training Network
CATS – Combined Arms Training Strategy
CMETL – core mission-essential task list
HHT – headquarters and headquarters troop
HoF – health of the force
METL – mission-essential task list
MiTT – military training team
VCSA – Vice Chief of Staff of the Army

METL	Troop	Platoon	Section	Leader	Individual
Execute command authority	**Maintain organizational readiness**	Manage organizational readiness tracker	Update platoon sergeant (PSG)/platoon leader (PL) weekly	Conduct daily cross-talk with Soldier	Provides updates to leader
		Execute transparent deconfliction of appointments with operational schedule	Update platoon appointment book	Conduct daily cross-talk with Soldier	Turn in appointment slips
		Conduct quarterly health and welfare inspections	Conduct monthly inspections	Conduct daily inspections	Conduct self-assessment daily on living conditions
		Report monthly high-/medium-risk assessments	Update PL/PSG immediately on any change to high-/medium-risk Soldiers	Constant communication and physical checks with high-/medium-risk Soldiers	Update leader on changes
			Weekly interaction with high-/medium-risk Soldiers	Update high-/medium-risk assessment as needed	
		Conduct periodic home visits/phone calls	Conduct monthly home visits with periodic weekend phone calls	Conduct weekly home visits with weekly phone calls	Keep clean home/barracks Provide leadership with available visit times
	Implement command policies and procedures	Educate Soldiers on select policies according to commander's guidance	Brief section periodically on commander's policies	Engage Soldiers on understanding of commander's policies	Read commander's policies and procedures
		Spot-check adherence to policies in daily operations	Spot-check adherence to policies in daily operations	Spot-check adherence to policies in daily operations	Ensure actions are conducted within policies and procedures
		Assess effectiveness of policies and provide feedback to commander	Provide feedback of policies to PL/PSG	Provide feedback of policies to section leader	Provide feedback to first line
	Communicate vision and assess comprehension	Engage Soldiers daily to receive commander's vision backbrief (i.e., Do they understand?)	Engage Soldiers daily to receive commander's vision backbrief (i.e., Do they understand?)	Engage Soldiers daily to receive commander's vision backbrief (i.e., Do they understand?)	Ask questions if guidance is not clear
		Conduct battlefield circulation	Execute training with all subordinates	Execute training with all subordinates	Come prepared to train

Figure 7. "Execute command authority" HoF METL task. *(from HoF organizational brief 2013, 4th Squadron, 3rd Cavalry Regiment)*

METL	Troop	Platoon	Section	Leader	Individual
Facilitate rehabilitation or transition	**Execute HoF command and control**	Maintain records of all counseling	Use meaningful questions rather than checking the block Use open-ended questions to pull out conversation	Conduct counseling packet PCC/PCIs, biweekly	Ensure honesty in all questions Be proactive when issues come up in Soldier's life
		Monitor patterns of behavior that may indicate larger problems	Ensure timelines are updated monthly or as needed	Keep chain of command aware of Soldiers demonstrating problem behavior	Bring problem up to first line so higher can help
		Escort high-risk Soldiers through separation or medical process	Ensure proper memorandums completed by chain of command	Maintain tasks checklist for proper separation or medical process	Build plan-of-action for life after separation
	Provide oversight of treatment process	Ensure Soldiers make all scheduled appointments and referrals	Ensure leadership is tracking appointments Escort Soldiers to referral appointments	Ensure chain of command is tracking appointments that interfere with training Ensure Soldiers have a training calendar available for appointment planning	Update appointment tracker no later than 24 hours in advance Be proactive in ensuring that highest level of care is being provided
		Update troop profile tracker weekly	Ensure tracker is up-to-date Keep records on when profiles expire	Ensure chain of command is up-to-date of profile Soldiers and appointments	Keep copy of profile at all times
		Maintain direct communication with provider	Execute battle rhythm checkup with provider	Record and keep all information on Soldiers	Call provider with questions to ensure contact is maintained
	Facilitate expeditious and fair disciplinary process	Conduct health and welfare inspections	Monthly room inspections by section leader	Ensure inspections are conducted daily	Ensure cleanliness of home life
		Ensure Soldier has access and time	Ensure Soldiers understand available legal resources	Ensure chain of command maintains status on Soldier/ legal process	Be prepared to ask questions and seek help from chain of command and legal
		Understand Soldier transition process	Provide knowledgeable escort for chapters, discipline, clearing	Escort Soldier through transition process Proactive, knowledgeable escort	Prepare all personal documents and equipment Be proactive
		Provider recommendations to troop commanders on Uniform Code of Military Justice	Develop plan-of-action and counseling	Ensure counseling packets support chain of command actions Conduct corrective training as required	Understand second- and third-order effects of decisions

Figure 8. "Facilitate rehabilitation or transition" HoF METL task. *(from HoF organizational brief 2013, 4th Squadron, 3rd Cavalry Regiment)*

Reconnaissance and Security Fundamentals at Chancellorsville

by CPT Kaleb Blankenship

When a reporter was asked why so little was written about the work done by the cavalry during the Civil War, he said, "They were generally so far to the front, and so near the enemy, that it was rather dangerous – and unpleasant – to be with them."[1] This was certainly the case for the cavalry and scouts of the Confederate Army of Northern Virginia during the Battle of Chancellorsville – perhaps more so than during any other engagement of the Civil War.

During the battle, MG Joseph Hooker, commander of the Union's Army of the Potomac, remarked in a telegram to MG John J. Peck: "So much is found out by the enemy in my front ... that I have concealed my designs from my own staff."[2] The Confederate cavalry's application of the fundamentals of reconnaissance and security – in particular, ensuring continuous reconnaissance, retaining freedom of maneuver and providing early and accurate warning – allowed GEN Robert E. Lee's Army of Northern Virginia to defeat a superior force at this famous encounter.

Battle of Chancellorsville

The American Civil War had been dragging on for more than a year and a half by December 1862. MG Ambrose Burnside, at that time the commander of the Army of the Potomac, launched an attack against Lee's Army of Northern Virginia across the Rappahannock River in Fredericksburg, VA.[3] The Confederates halted the assault and drove the Union Soldiers back across the river, but the harsh winter weather made it impossible for Lee to counterattack.[4] The two armies developed an unofficial truce to wait out the winter months since it was too cold for either side to continue offensive operations.[5] During this time, President Abraham Lincoln relieved Burnside and replaced him with Hooker, who devised a plan to flank Lee's army from the west once warmer weather came at a place called The Wilderness near Chancellorsville, VA.[6] The warmer weather and operations for both sides commenced in early May 1863.

At 5 p.m. May 2, 1863, LTG Thomas J. "Stonewall" Jackson turned to one of his division commanders, BG Robert E. Rodes, and asked, "Are you ready?" After Rodes promptly answered, "Yes, sir," Jackson ordered, "You can go forward, then."[7] With that, Jackson's II Corps, comprising nearly 27,000 Confederates, began advancing.[8] Jackson's forces clashed with men of the XI Corps, making up the right flank of the Army of the Potomac, at Talley's Farm, west of Chancellorsville.[9] This fatal blow to an unsuspecting enemy was so severe that it sent the Union soldiers retreating north back across the Rappahannock River in the subsequent days. The Battle of Chancellorsville is known as Lee's masterpiece as he, with the help of competent generals like Jackson and MG J.E.B. Stuart, with his band of mounted cavalrymen, defeated a force nearly double the size of his own.[10]

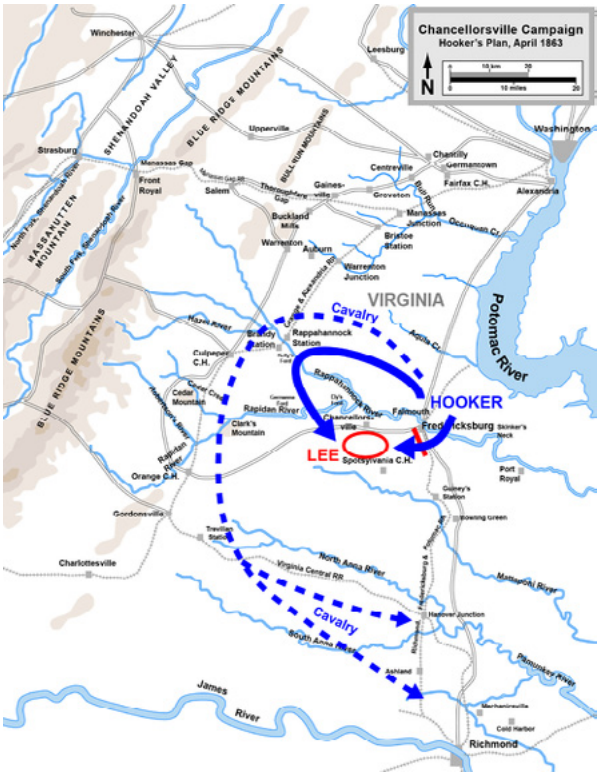

Figure 1. Union MG Joseph Hooker planned to flank Confederate GEN Robert E. Lee's army from the west near Chancellorsville, VA. *(Map from Wikimedia Commons by Hal Jespersen)*

Confederate scouts proved invaluable to Lee early in the campaign. Hooker had ordered two corps, under MGs John Sedgwick and John F. Reynolds, across the Rappahannock just east of Fredericksburg in a feint April 29.[11] The plan was to make the Confederates think this was the main body of the attack, then surprise them on their left flank with the rest of the Army of the Potomac. The trickery seemed to work at first, as Reynolds reported that "a demonstration will bring on a general engagement" and Sedgwick concluded that "the enemy seems to be in heavy force in [our] front. ... We are ready for them."[12] In a note from CPT William L. Candler, one of Hooker's aides-de-camp, to MG Henry W. Slocum, commander of the XII corps in Chancellorsville, Candler wrote, "The general [Hooker] desires that not a moment be lost until our troops are established at or near Chancellorsville. From that moment all will be ours."[13]

Lee, however, had been getting reports from the commander of his two cavalry brigades, Stuart, informing him of Hooker's arrival in Chancellorsville and enemy movements against

Stuart's operations there.[14] Elements of Stuart's cavalry, COL John R. Chambliss' 13th Virginia, disrupted parts of the Union army's move south of the Rappahannock River near Brandy Station, northwest of Chancellorsville. Chambliss' cavalrymen would fight, displace and fight again for more than five hours. During their engagements, they captured men from each of the three corps Hooker had sent across the river to flank the Confederates from the west.[15] Lee concluded in a message to President Jefferson Davis that their "object [is] evidently to turn our left."[16]

On the morning of May 1, word came from Stuart to Lee via courier that the enemy was advancing toward Lee's left flank on the old turnpike and Plank Road.[17] Armed with these scouting reports and believing, along with Jackson, that it would be "inexpedient" to attack at Fredericksburg, Lee issued Special Orders No. 121, which split his army into two parts.[18] One division and one brigade (about 10,000 men) would remain near Fredericksburg under command of MG Jubal Early, while the rest of the army went west to check Hooker's main advance near Chancellorsville.[19]

By the evening of May 1, Hooker had Lee's entire army between his own two flanks, had him outnumbered two to one, and had more guns and supplies.[20] At sunset, Lee and Jackson met on the Plank Road-Furnace Road junction to discuss their plans for the next day.[21] They both understood the importance of regaining the initiative if they were to have any hope of success against the superior force, but knew of no way to get it. Finally, Stuart rode up with intelligence from his scouts. Stuart informed the other two generals that Hooker's western flank was hanging "in the air" with no obstacles protecting it.[22] That night, Jackson sent a local reverend with his topographical officer, MAJ Jed Hotchkiss, to locate suitable routes for a flank attack.[23]

Early May 2, Lee sent Jackson west around the enemy's right flank with almost 27,000 men, leaving himself only 17,000 to face the main front of Hooker's army south of Chancellorsville.[24] The Confederate cavalry continued to prove its worth as BG W.H.F. "Fitz" Lee

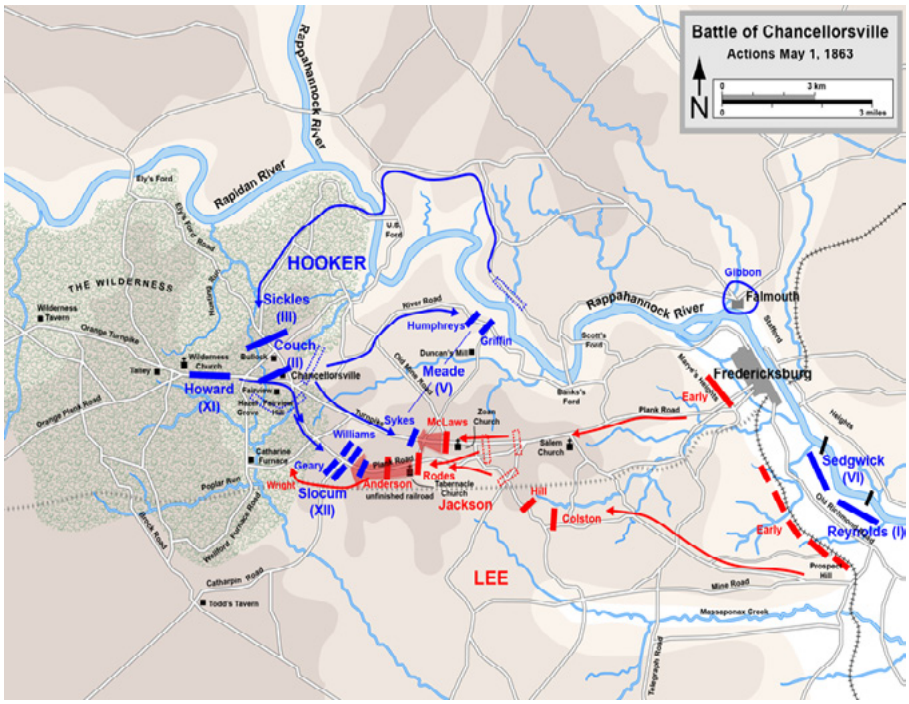

Figure 2. Lee split his forces, part of them remaining near Fredericksburg to counter Union troops there, while his main army went west to meet Hooker's main body. *(Map from Wikimedia Commons by Hal Jespersen)*

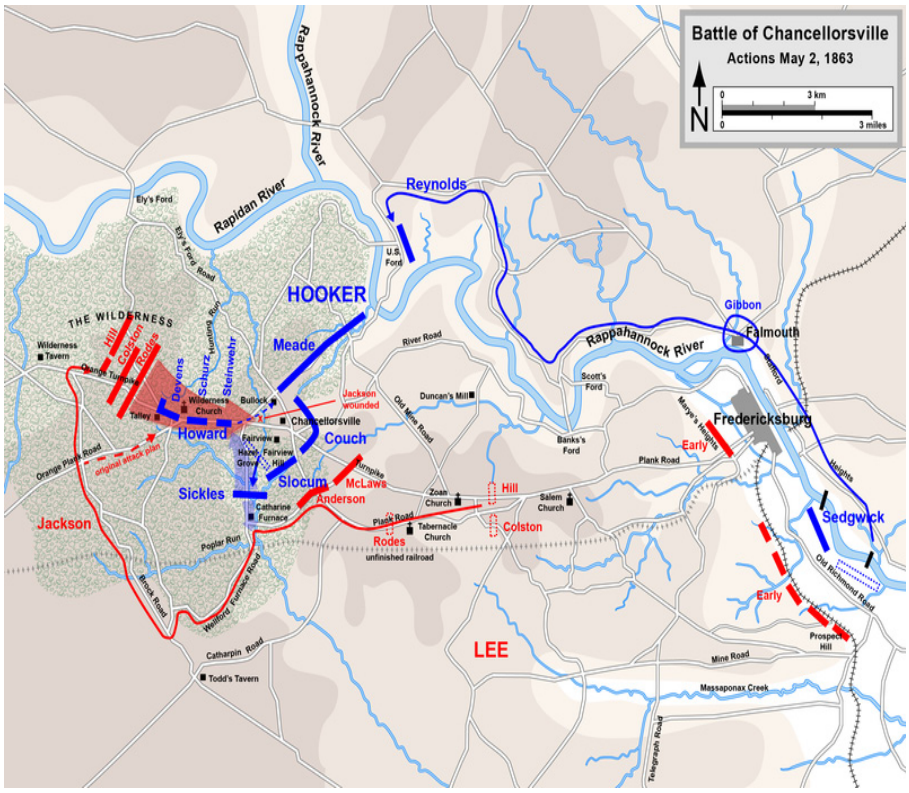

Figure 3. Confederate troops outflanked Union troops from the west. *(Map from Wikimedia Commons by Hal Jespersen)*

covered Jackson's movements by "neutralizing [MG George] Stoneman's ten thousand" with his brigade of Virginia horsemen.[25] This cover allowed Jackson to make a 15-mile circuitous march around the enemy's right flank virtually undetected.

Jackson arranged his divisions carefully for the attack. He put Rodes' division in the front, followed by BG Raleigh E. Colston and MG A.P. Hill, with Stuart's cavalrymen protecting the

corps' right flank.[26] The Confederates charged east into an unsuspecting XI Corps. Union soldiers were cooking their dinners and relaxing on bedrolls when they saw the Confederates come through the trees to their west.[27] The 41st and 45th New York regiments, completely surprised, turned and ran without firing a shot. Union artillery only fired two rounds before being overrun.[28] Attempts to halt the Confederate attack proved futile. Within an hour and a half, Jackson's men drove the XI Corps more than a mile from its original position and were within two miles of Hooker's headquarters.[29]

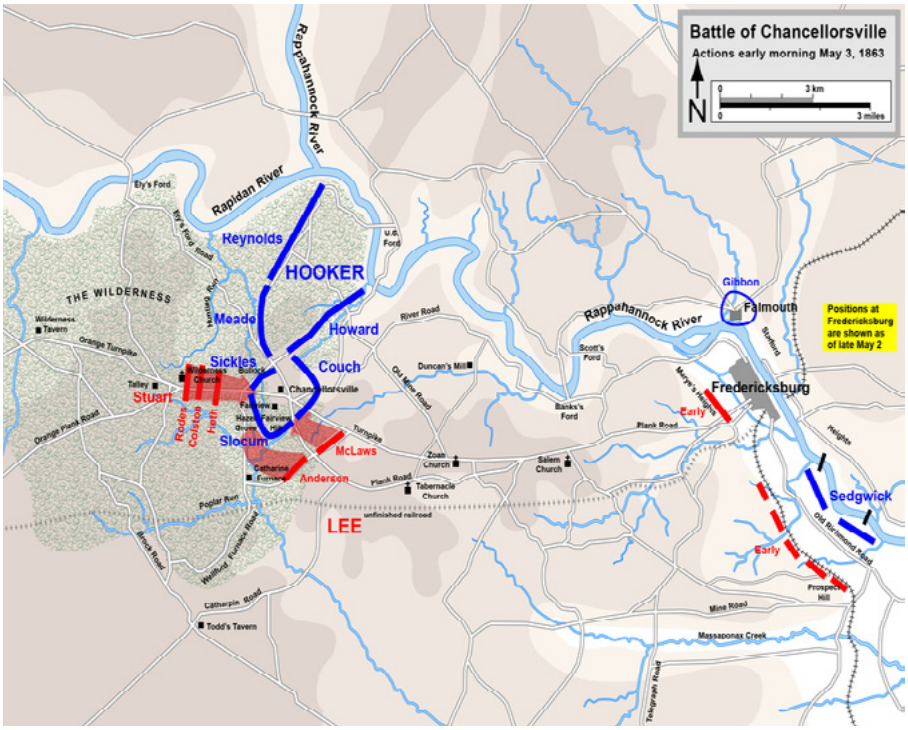

Figure 4. In the center of the three red arrows (indicating Confederate troops) on the map's left are Hazel Grove and Fairview Knoll (Hill). Capturing them united Stuart's forces with the rest of the Army of Northern Virginia. *(Map from Wikimedia Commons by Hal Jespersen)*

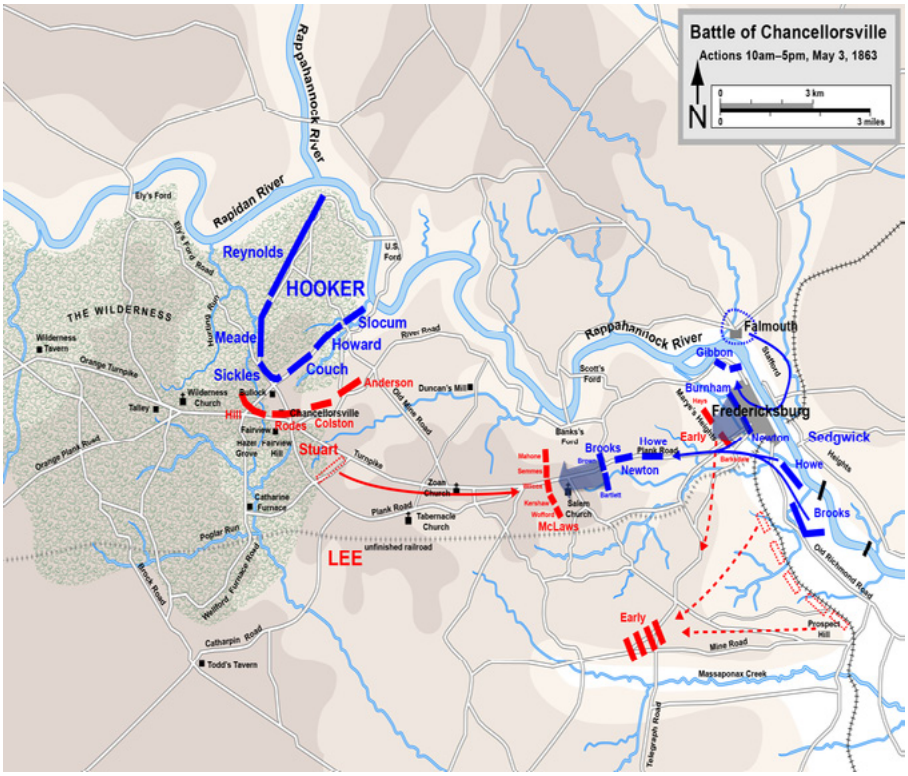

Figure 5. Hooker's forces (in blue) fell into defensive actions between Chancellorsville and the Rappahannock River. *(Map from Wikimedia Commons by Hal Jespersen)*

The assault halted around 9 p.m. as both sides reformed their lines. Jackson used this time to reconnoiter the newly formed Union line to identify a weak spot on which to concentrate his next assault. Unfortunately, Jackson was mortally wounded by gunfire from his own men during this reconnaissance – it would be up to Stuart to assume command and continue the attack.[30]

Stuart initiated the second wave of attacks early on the morning of May 3 to take two pieces of key terrain just west of Chancellorsville: Hazel Grove and Fairview Knoll. Capturing these pieces of terrain would link the right flank of Stuart's forces with the left flank of the rest of the Army of Northern Virginia.[31] Although costly, the fight allowed the Confederates to drive the Union back and reunite the flanks of the Army of Northern Virginia, forcing Hooker to take up defensive positions between Chancellorsville and the Rappahannock.[32]

Realizing the extent to which his forces had been surprised and overrun, Hooker ordered his army to abandon Chancellorsville on the night of May 4.[33] Less than 36 hours later, the last Union soldiers crossed back to the north side of the Rappahannock via the U.S. Ford. The Battle of Chancellorsville ended, claiming the lives of more than 17,000 Union soldiers and nearly 13,000 Confederates.[34]

Application to contemporary doctrine

Understanding how the Confederate commanders recognized and accomplished their tactical requirements helps us learn more about our contemporary doctrine. According to Army Doctrine Reference Publication (ADRP) 3-90, the fundamentals of reconnaissance and security are the following: ensure continuous reconnaissance; do not keep reconnaissance assets in

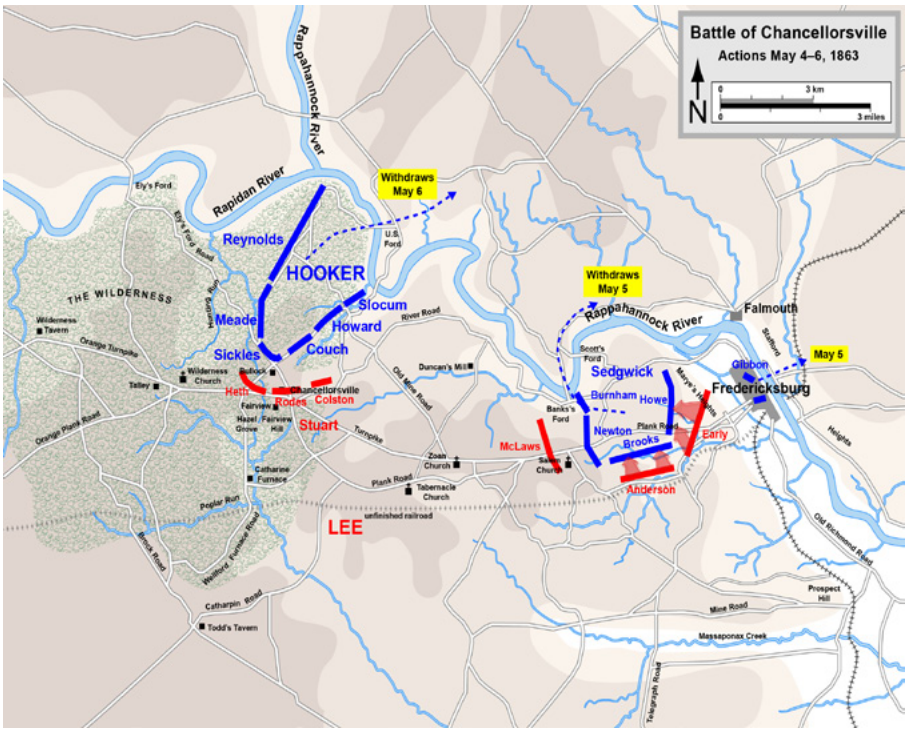

Figure 6. From May 4-6, Hooker's Union troops retreated across the Rappahannock River, giving the Confederacy a decisive victory at the Battle of Chancellorsville. *(Map from Wikimedia Commons by Hal Jespersen)*

reserve; orient on the reconnaissance objective; report information rapidly and accurately; retain freedom of maneuver; gain and maintain enemy contact; develop the situation rapidly; provide early and accurate warning; and provide reaction time and maneuver space.[35] At the Battle of Chancellorsville, the Confederate cavalry scouts most notably practiced three of these fundamentals by ensuring continuous reconnaissance, retaining freedom of maneuver and providing early and accurate warning.

Continuous reconnaissance is the ongoing collection of information about the enemy and terrain that supports the unit's attempt to determine the enemy's course of action.[36] There are three examples from the Battle of Chancellorsville that prove the Confederates understood the concept of conducting continuous reconnaissance. The first occasion occurred April 29 when Stuart's men discovered elements of the Union army advancing west toward Chancellorsville from Fredericksburg. Because they were actively conducting reconnaissance against the enemy, the Confederate scouts were able to discover Hooker's true scheme of maneuver: to feint in Fredericksburg and flank the Confederates from their left.

The second instance in which the Confederate scouts demonstrated their understanding of ensuring continuous reconnaissance was on the evening of May 1, when they discovered the enemy's right flank was weak with no obstacles protecting it. After determining the location, composition and disposition of the enemy, Stuart's cavalrymen did not stop. Instead, they continued their reconnaissance to identify weak spots in the enemy's defensive positions against which to conduct an attack. Their perseverance proved invaluable, as it led to intelligence that shaped Lee's plan and ultimately decided the battle's outcome.

Lastly, once the cavalry identified the weak spot and Lee developed the scheme of maneuver, the Confederates still continued to conduct reconnaissance. By commissioning Hotchkiss and a resident of Chancellorsville to conduct a route reconnaissance, Jackson was able to confirm the feasibility of his tentative scheme of maneuver to flank the enemy. The Army of Northern Virginia's adherence to the fundamental of continuous reconnaissance throughout the Battle of Chancellorsville allowed it to successfully understand the enemy's course of action and react to regain the initiative.

The Confederate cavalry's success at Chancellorsville was also based on its retention of freedom of maneuver throughout the campaign. Retaining freedom of maneuver means to maintain battlefield mobility by not becoming decisively engaged with the enemy, at which point reconnaissance stops and the fight to survive begins.[37] Chambliss' men retained freedom of maneuver by fighting small elements of the Union Army, then displacing. Had they not done this, they would have likely met certain defeat against an enemy more than six times their size. By not becoming decisively engaged, yet still continuing to fight for information, the scouts were able to further develop the situation by capturing men from different corps of the Army of the Potomac. This helped the Confederate leadership understand just how many units Hooker had sent toward their western flank.

Their retention of freedom of maneuver also allowed Stuart's troopers to covertly identify the weakest point in the enemy's defense. Undoubtedly, the scouts had to reconnoiter multiple points across the breadth of the Union army's front. Maintaining battlefield mobility enabled them to accomplish this without being destroyed and costing Lee his greatest asset of the battle.

Stuart's men also assisted other elements in retaining freedom of maneuver. Lee understood that for Jackson's flank attack to be successful, his forces had to be able to move undetected to the enemy's western flank. Therefore, he ordered the cavalry to cover their enveloping march. This cover by the Confederate mounted forces allowed Jackson to retain freedom of maneuver and preserve combat power by not becoming prematurely decisively engaged with the enemy, resulting in achieving complete surprise on the men of Hooker's XI Corps.

Had the Confederate scouts not provided early and accurate warning, their continuous reconnaissance and retention of freedom of maneuver could have all been for nothing. This historical account is filled with examples of the Confederate cavalry providing early and accurate warning to Lee.

Providing early and accurate warning is accomplished by detecting the enemy quickly and reporting accurate information to the main-body commander.[38] Lee was able to determine Hooker's intention of flanking the Confederates from the left because of the reports he was receiving from his scouts early in the campaign. Lee received these reports early enough to issue Special Orders No. 121 to redirect his forces and prevent an enemy envelopment of their positions. The course of the battle over the next several days proved the accuracy of the reports as well.

The cavalry again demonstrated its proficiency with providing early and accurate warning on the evening of May 1, when Stuart informed Lee of the enemy's weak western flank. Despite having to be sent through multiple echelons of command before reaching Stuart and, ultimately, Lee, the reports arrived in time for Lee to send Jackson on his famous 15-mile march around the Union army's western flank. Rodes, Jackson's lead division commander, soon found out the accuracy of the reports as he was able to roll up the entire Army of the Potomac from its right flank and send it fleeing back across the Rappahannock. The ability of junior scouts to communicate effectively by recognizing and prioritizing what information was important for higher commanders to make a decision and then ensuring it was delivered in time for decisions to be made and orders issued was paramount to the Confederates' success.

Perhaps the best summation of the role the Confederate cavalry played at Chancellorsville was written by Union MG John Dix in a telegram to Peck May 1, 1863, in which he concluded, "Among the many marvels of this war are the impossibility on our own part of getting information as to the enemy and the facility with which he ascertains everything as to us."[39] Seeing the important role the cavalry played at Chancellorsville, Lee wrote a note to Davis May 7 asserting that "unless we can increase the cavalry attached to this army, we shall constantly be subject to aggressive expeditions of the enemy. ..."[40] The Confederate cavalry demonstrated its immeasurable value through its application of reconnaissance and security fundamentals, allowing the Army of Northern Virginia to win one of the most famous upsets in history and set the conditions for the most iconic battle of the Civil War: Gettysburg.

The Confederate account at Chancellorsville highlights the significance of conducting reconnaissance and security operations. It demonstrates the paramount importance of conducting reconnaissance as a prelude to offensive operations to allow commanders to "see first, understand first, act first and finish decisively."[41] Reconnaissance, conducted by specifically trained and organized forces, empowered by the exercise of mission command, is just as important on modern battlefields as it was at Chancellorsville in 1863. While aviation, indirect fires and surveillance technology complement reconnaissance capabilities today, digital sensors cannot replace an individual Soldier's ability to adapt to rapidly changing situations on the ground and fight for information to understand the enemy's intent. Without such reconnaissance, commanders fall prey to an overreliance on conducting movements-to-contact instead of using cavalry to disrupt the enemy's decision-making cycle and shape the battlefield to fight under more favorable conditions.

Furthermore, this account exemplifies the significance of preserving combat power through security operations conducted by units other than the main-body protected force. If commanders do not have designated security elements, they must decide to either forgo security operations entirely or divert combat power from the main body to protect the rest of the force, thus affecting their ability to mass the effects of combat power and finish decisively. Security operations enable the attainment of other operational fundamentals by the protected force – such as the fundamentals of the offense at Chancellorsville. Using the cavalry to cover Jackson's move to the enemy's flank enabled him to surprise the enemy from the west. Also, providing flank security during Jackson's assault allowed him to concentrate the effects of his forces on the enemy's weak flank and maintain a rapid tempo. Planning for security operations, conducted by formations trained and equipped to conduct them, can pay huge dividends for the main body at the decisive point of an operation.

The Battle of Chancellorsville provides insights into the timeless dynamic nature of reconnaissance and security operations. As Lee had in the veteran scouts under Stuart's leadership, cavalry operations require tactical specialists specifically trained, equipped, experienced and organized to provide reconnaissance and security capabilities to the commander. This cannot be accomplished by simply assigning a tactical enabling task to any maneuver unit in the formation. Chancellorsville, among other Civil War battles, was extremely symmetrical for the senior commanders. Officers from each side went to the same schools and understood the same doctrine. Soldier training was the same. The formations used were the same. Each army was organized the same. The primary variable that allowed the Confederates to outmaneuver their numerically superior enemy was their adaptation and use of reconnaissance and security elements to develop the situation.

Uncertainty about the enemy cannot be eliminated through analysis (intelligence preparation of the battlefield) and detailed planning alone. Leaders must be able to adapt to changing conditions during execution, united by a common purpose and understanding of enemy capabilities. Although today's battlefields may not call for large cavalry formations as they did during the Civil War due to technological advances in communication, mobility and firepower, they do call for mentally agile leaders capable of adapting tactical fundamentals to rapidly changing situations against a competitive enemy.

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Notes

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Acronym Quick-Scan

ADRP – Army doctrine reference publication

REVIEWS

***Pacific Blitzkrieg: World War II in the Central Pacific* by Sharon Tosi Lacey. Denton, Texas: University of North Texas Press, 2013, ISBN 978-1-57441-525-4, 282 pages, $27.95.**

The United States successfully conducted global warfare in World War II. Yet, it began the effort, in the words of historian Martin Blumenson, "in a hasty, largely improvised, almost chaotic and painfully inadequate manner." Moving from that state of affairs to one that witnessed total victory was the result of an evolutionary process involving dynamic leadership, operational brilliance and tactical supremacy. Commanders initially faced an almost insurmountable series of tasks in the Pacific Theater of Operations. How they met the challenges by developing division-level organizations, mastering the art of amphibious warfare and resolving interservice cultural differences is the subject of Dr. Sharon Tosi Lacey's ***Pacific Blitzkrieg: World War II in the Central Pacific***.

The book examines the five major Central Pacific battles in which both Army and Marine units participated. These were the battle of Guadalcanal, the invasions of Tarawa and Makin in the Gilbert Islands, the struggle for Kwajalein and Roi-Namur in the Marshall Islands, the conquest of the Marianas island of Saipan and the fight for the island of Okinawa.

Lacey explains her organization of material by writing, "Comparing, to the greatest degree possible, similar events, functions and outcomes, in various engagements over a three-year period requires a certain degree of analytical standardization." To this end, each chapter is identically structured and contains a brief introductory review of worldwide events followed by a discussion of the strategic setting, operational planning, pre-combat training, review of the units involved, the operation itself, enemy action, landing operations, battle summary and an analysis section. The analysis section includes an examination of the planning, intelligence, training, casualties and commanders. The final two sections provide lessons-learned and effects on future operations. By using this systematic format, the contribution each of the five battles made to final victory can be more fully appreciated. Footnotes, a detailed bibliography, photos and maps will further enhance the value of the book to joint-force maneuver commanders.

The process of creating and employing a joint force to defeat the Japanese was not without growing pains. There were "service cultural difference[s]" which hindered the realization of a seamless fighting force striving to achieve a common goal. There were members of both the Army and the Marines who were combative and uncooperative with each other. For example, writing on Marine MG Holland M. Smith's attitude following the 1943 invasion of Tarawa and Makin islands, Lacey comments that Smith "never saw this difference in outlooks as one of doctrine. Instead, what the army considered a prudent approach to combat, he viewed as cowardice and indecision." Yet, wiser and more adaptable leaders by 1944 "managed to fuse together a truly joint team that was able to overcome interservice issues for the good of the mission."

Lacey's even-handed analysis of the leadership styles of corps and division commanders who "demonstrated a genius for pragmatism that was to drive their forces to victory" makes this book a fast-reading, fascinating view of the development of joint operations. Her clear understanding of both enemy and friendly tactics and techniques, coupled with a thorough examination of weapons and training procedures, augment her conclusion that after the passage of the 1986 Goldwater-Nichols Reorganization Act, "the army and marine corps had finally seen the fruits of the small vine planted on the shores of Guadalcanal [70] years ago." This book is an enthralling and important account of the development of joint operations. As such, it will appeal to anyone involved in interservice cooperative ventures.

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8TH CAVALRY REGIMENT

The 8th Cavalry Regiment was constituted July 20, 1866, in the Regular Army. Organized Sept. 21, 1866, at Angel Island, CA, and assigned to 15th Cavalry Division December 1917 through May 1918, the unit was then assigned to 1st Cavalry Division Sept. 13, 1921. The distinctive insignia consists of the principal charges and motto of the coat of arms. The eight mullets show the regimental number and cavalry tradition of the pierced mullet to the rowel of a spur. This is further indicated by the horse.

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