PB 7-15-2

Infantry

April-June 2015

Enhancing Small Arms Combat Skills Training

This medium is approved for official dissemination of material designed to keep individuals within the Army knowledgeable of current and emerging developments within their areas of expertise for the purpose of enhancing their professional development.

Infantry

FEATURES

OTHER DEPARTMENTS

ON THE COVER:

An Iraqi soldier with 73rd Brigade, 15th Division works to improve his kneeling firing stance with a Solder from the 3rd Brigade Combat Team, 82nd Airborne Division at Camp Taji, Iraq, on 24 March 2015. The unit was deployed to Iraq as part of Combined Joint Task Force - Operation Inherent Resolve to advise and assist Iraqi Security Forces in their fight against the Islamic State of Iraq and the Levant. (Photo by SGT Cody Quinn)

BACK COVER:

Paratroopers assigned to the 4th Infantry Brigade Combat Team (Airborne), 25th Infantry Division, U.S. Army Alaska, practice a forced-entry parachute assault on Malemute drop zone at Joint Base Elmendorf-Richardson, Alaska, on 18 March 2015. (Photo by Alejandro Pena)

BG Rainey Selected to Command 3rd ID

On 29 May, the Chief of Staff of the Army announced that U.S. Army Infantry School (USAIS) Commandant and Chief of Infantry **BG James E. Rainey** has been selected to be the next commanding general of the 3rd Infantry Division and Fort Stewart, Ga. BG Rainey assumed duties as the 55th USAIS Commandant and Chief of Infantry on 1 August 2014.

BG Jones Tapped as Next Commandant

BG Peter L. Jones, director, CJ-35, Resolute Support Mission Joint Command, Operation Freedom's Sentinel, Afghanistan, has been selected to serve as the next USAIS Commandant and Chief of Infantry, Maneuver Center of Excellence, Fort Benning, Ga. His previous assignments include serving as the deputy commanding general (support) of the 3rd Infantry Division, Fort Stewart; executive officer to the Secretary of the Army, Washington, D.C.; and commander of 3rd Brigade, 3rd Infantry Division, Fort Benning. He graduated from the U.S. Military Academy at West Point, N.Y., with a bachelor's degree in political science and also earned master's degrees from Georgetown University, U.S. Army Command and General Staff College, and National Defense University.

BG Peter L. Jones, deputy commanding general (support), 3rd Infantry Division, leads the 3rd Infantry Division Honor Guard during a parade 17 March 2014 in downtown Savannah, Ga.

Photo by SGT William Begley

Infantry News

RESERVE COMPONENT MCCC EXPANDS

COURSE REACTIVATES DISTANCE LEARNING, EXTENDS RESIDENT PHASES

CPT WILFORD L. GARVIN

The Reserve Component Maneuver Captains Career Course (RC MCCC) is evolving to achieve closer parallel to the 24-week resident Active Component (AC) MCCC. Following temporary suspension of distance learning for revision, RC MCCC consisted of only two resident phases in Fiscal Year (FY) 2014, both two weeks in length. These totaled 218 hours of instruction as compared to 1,094 hours in the active course. In accordance with U.S. Army Training and Doctrine Command (TRADOC) Tasking Order (TASKORD) 121463, RC MCCC and the other RC captains career courses (CCCs) are reactivating distance learning and expanding resident phases from two to three weeks in length. The Maneuver Center of Excellence (MCoE) plans to complete full implementation of distance learning in FY16 and three-week resident phases in FY17.

Phase I of RC MCCC is 75 hours of distance learning developed by the School of Advanced Leadership and Tactics (SALT) from the CCC common core curriculum. This phase is currently in general pilot and available through a Fort Leavenworth-operated Blackboard site. Following completion of the pilot, Phase I will transition to MCoE management either through Blackboard or the Army Learning Management System (ALMS). Phase I will become an RC MCCC graduation requirement effective April 2015. Brigade commanders may request exceptions to policy for this requirement until FY16. The point of contact for requests for this exception to policy is the MCCC team chief for Tactics Team 4. Effective October 2015, however, Phase I will become a mandatory prerequisite for Phase II attendance. Future RC MCCC students may register now for Phase I at: https://cgsc2.leavenworth.army.mil/students/SALT/index.asp.

Phase II of RC MCCC will expand from two to three weeks of resident instruction at Fort Benning. Phase II corresponds to the "company phase" of AC MCCC with instruction focused on achieving mastery of troop leading procedures (TLPs). In accordance with Army Directive 2012-20, students must pass the Army Physical Fitness Test (APFT) and meet Army height and weight standards to start the phase. Students also must pass an entrance examination of doctrinal concepts, terms, and graphics on the first day of the course. Students in this phase will plan and brief two company-level operations orders as well as execute one order in Virtual Battle Space.

Phase III of RC MCCC is 75 hours of branch technical distance learning developed by MCoE. This phase completed a limited pilot and will be available in ALMS in FY15. While there will be no prerequisites for Phase III RC MCCC, students who complete Phase III prior to attending Phase II will arrive to Fort Benning better prepared for company-level TLP instruction. Phase III is tentatively slated to become a Phase IV attendance prerequisite/RC MCCC graduation requirement in FY16 pending its activation in ALMS.

Phase IV of RC MCCC will also expand from two to three weeks of resident instruction at Fort Benning. Students are again required to pass the APFT and meet height and weight standards to start the phase. Phase IV corresponds to the "battalion phase" of AC MCCC with instruction focused on familiarization with the military decision-making process, Army Design Methodology, training management, and other common core topics. At the conclusion of Phase IV, students receive their RC MCCC diplomas and DA Form 1059, *Academic Evaluation Reports*. Expansion of both resident phases to three weeks will be fully implemented in FY17 with pilots conducted in late FY15 and early FY16.

This updated RC MCCC program of instruction will not be reflected in the Army Training Requirements and Resources System (ATRRS) until after complete processing by TRADOC. Units and prospective students seeking updates regarding the implementation timeline or additional course information should refer to the RC MCCC website at: http://www.benning.army.mil/mcoe/dot/mc3/reserve/index.html.

(CPT Wilford L. Garvin is a team chief with MCCC, Directorate of Training, MCoE, Fort Benning, Ga.)

NEW DTMS IMPROVES TRAINING MANAGEMENT, TRACKING OF SOLDIERS' TRAINING RECORDS

MIKE CASEY

Improvements to the Army's premier training management tool make it easier for commanders to plan exercises and keep track of their Soldiers' training records. The new version of the Digital Training Management System (DTMS) launched at the end of 2014.

"Version 7 of DTMS reflects the changes that Soldiers and commanders wanted. DTMS is more powerful and is easier to use," said MAJ Tripp Smith, project manager and help desk lead. "The new version helps commanders at each step of the training management process from plan and prepare to execute and assess. It also maintains a Soldier's training history from hire to retire."

DTMS allows users to communicate and coordinate across the chain of command. It also features calendars to plan and schedule training.

Some of the improvements include:

• A new calendar drag and drop feature that facilitates the scheduling of training events.

• Quick link shortcuts to frequently used functions such as reports, unit organizational hierarchy tree views, and Soldier management.

• A job book and leader book function that assists small unit leaders in managing individual Soldier training and small unit collective training. As Soldiers move to other units, their DTMS digital information follows them and is updated digitally through the automated interfaces.

• Software updates that improve system performance and reliability, increase training management support to divisions and above, and provide capabilities for future enhancements.

• A course manager tab that will replace the Resident Individual Training Management System (RITMS), which Army schools and initial military training use to conduct institutional training management. This tab in DTMS v7 will replace RITMS starting in March 2015 and will assist the U.S. Army Training and Doctrine Command units with managing testing, individual training records, classes, courses, and other topics.

DTMS is a resource that impacts Soldiers and commanders throughout the Army. For unit leaders and trainers down to squads and even team leaders, DTMS provides a digital version of the Soldier's individual training record, job book, and leader book to better inform training management decisions and reduce manual data entry as new Soldiers arrive or move to other units.

For commanders and training managers, DTMS provides an easily accessible record of training and replaces the old mission essential task list crosswalk with a digital version called the Combined Arms Training Strategy. It allows commanders to formulate a training plan and synchronize it with Army doctrine. Commanders and training managers can also quickly query records to track the status of any unit or individual training, to include weapons qualification, physical training, mandatory training and other training completion information.

To help commanders use DTMS, more than 4,000 trainers and users across the Army have attended courses to learn about DTMS version 7 and its improvements. To familiarize Soldiers with the improvements, the site provides links to videos and manuals. You can also call the help desk at (913) 684-2700 or DSN 552-2700.

DTMS is maintained by the Training Management Directorate at Fort Leavenworth, Kan. It is a subordinate organization of the Combined Arms Center - Training, which manages training support and training development programs.

(Mike Casey is a public affairs officer for the Combined Arms Center - Training at Fort Leavenworth, Kan.)

SFC Timothy Briggs and SFC Jeremy Lemma celebrate having crossed the finish line of the final event of the Best Ranger Competition on 12 April at Fort Benning, Ga. The team finished first in this year's competition.
Photos by Patrick A. Albright

On 10 April, the first day of competition, Best Ranger competitors tackled the Malvesti Obstacle Course, three buddy runs, a pond swim, an urban assault course, stress shoot, land navigation course, and a foot march.

ARTB TEAM TAKES TOP HONORS AT 2015 BRC

NICK DUKE
NOELLE WIEHE

For an Army-leading 13th time, a team from the Airborne and Ranger Training Brigade (ARTB) earned top honors at the 2015 David E. Grange Jr. Best Ranger Competition.

SFC Timothy Briggs and SFC Jeremy Lemma were able to best a field of 51 teams, of which 24 made it to the finish line.

The 32nd annual competition, held 10-12 April at Fort Benning, Ga., challenged 102 Soldiers both physically and mentally and recognized the team who could move furthest, fastest, and fight hardest in a matter of 60 hours of strenuous activity.

"Essentially, it's a state of mind, living the Ranger Creed," said MAJ John Vickery, commander, A Company, 4th Ranger Training Battalion. "These guys are born with those instincts, it is not something they take on once they start to train for Best Ranger; it is something they live on a daily basis."

Tabbed and experienced in all events the 51 teams

faced in the competition, Rangers and instructors agreed that winning the Best Ranger Competition involved keeping a pace.

"It's running your own race," said 1LT David Matthews with Team 25 from the 25th Infantry Division. "One event at a time is all it is."

From the Malvesti Obstacle Course, Urban Assault Course, a spot jump, a helocast drop from a Black Hawk helicopter into Victory Pond to an unknown distance swim, a foot march and several buddy runs, the competitors are tested on numerous platforms of performance.

"One thing that Rangers pride themselves on is being able to get to an objective through land, sea, or air," Vickery said.

The competition historically includes 26 events on average which vary year to year. There are legacy events, which have been a part of the competition since its inception, and mystery events. Vickery said on Day 1, competitors are on their feet about 40 miles.

"Day one is all about endurance ... a lot of running, a lot of land navigation, a lot of swimming and then, finally, the foot march, which is the biggest event of the day that's weighted the most and probably what most competitors train for," Vickery said.

The foot march was the final event of Day 1, and the top 24 were allowed to advance to Day 2. In days two and three, remaining teams participated in night and day stakes, night orienteering, the Darby Queen, a combat water survival assessment, and final buddy run to end the competition.

"... I watched perseverance beyond what I expected," said MG Scott Miller, Maneuver Center of Excellence commanding general. "I watched as some people didn't make it to the finish line, but I didn't see anybody quit. I saw people who fell over because their body wouldn't move anymore. I saw partners taking extra weight. I saw that perseverance through adversity, which is something our military needs to know all about."

SMA Daniel Dailey, who served as the guest speaker at the competition's award ceremony, said those who finished, no matter their final standing, deserve recognition.

"Not only is the Best Ranger Competition a test of individual strength and stamina, it's a test of readiness and the resiliency of a team," Dailey said. "This contest is used to motivate others to exceed the standards. These competitors are expected to return to their units and pass on the skills they've learned as a result of the grueling experience they have endured during this competition...
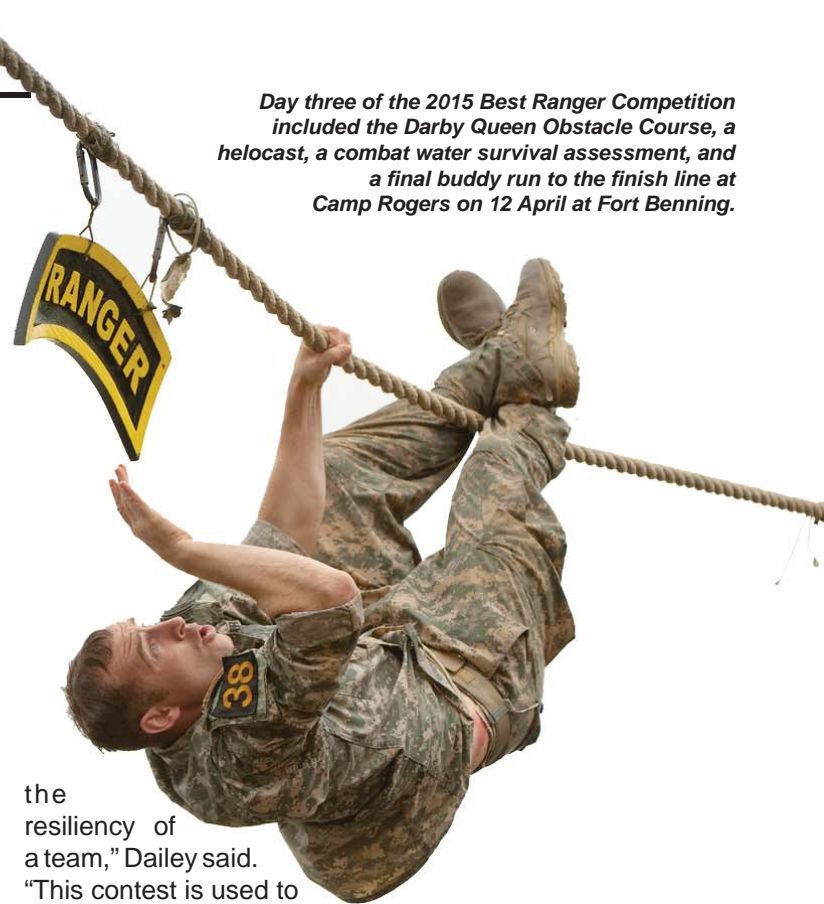
"Make no mistake, a team that can say it completed the Best Ranger Competition has plenty to boast. That's why I'm in awe of your fortitude," Dailey continued. "...These Soldiers have not only achieved something for themselves, but they have ensured the legacy, traditions, and honor of the Rangers will once again endure. I am honored to be among these Soldiers. I am proud to represent them as their sergeant major. After witnessing all of you (this weekend), you have reminded me how proud I am to call myself a Ranger."

(This article was adapted from articles written by Nick Duke and Noelle Wiehe that appeared in the 15 April issue of the Bayonet and Saber *newspaper.)*

2015 Best Ranger Final Standings

1. Team 38 — SFC Jeremy Lemma and SFC Timothy Briggs, ARTB
2. Team 10 — CPT Robert Killian and CPT Travis Cornwall, National Guard
3. Team 27 — SSG Philip Jewah and SGT Thomas Malphrus, 75th Ranger Regiment
4. Team 39 — SFC David Floutier and SSG Nicholas Fenton, ARTB
5. Team 36 — SSG Michael Roggero and SSG Joshua Rolfes, ARTB
6. Team 37 — SFC Antonio Paparella and SSG Michael Bockman, ARTB
7. Team 25 — 1LT David Matthews and 1LT Kyle Cobb, 25th Infantry Division
8. Team 1 — 1LT James Teskey and SSG Theodore Guinn, 82nd Airborne Division
9. Team 2 — 1LT Herbert Jockheck and SSG Joseph Liddle, 82nd Airborne Division
10. Team 33 — MAJ Casey Mills and MSG Christopher Nelms, U.S. Army Special Operations Command
11. Team 5 — SFC Jesus Zuniga and SGT Matthew Hiebner, 173rd Airborne Brigade
12. Team 51 — 1LT Colin Raymond and 1LT Eric Kim, 7th Infantry Division
13. Team 28 — SSG Charles Martinez and SSG Charles Gonzalez, 75th Ranger Regiment
14. Team 45 — CPT Trevor Shirk and CPT Kevon Raymond, Fort Jackson, S.C.
15. Team 19 — 1LT Brian Rowen and SSG James Smith, 101st Airborne Division
16. Team 48 — CPT Jay Brend and CPT Mark Gaudet, 199th Infantry Brigade
17. Team 34 — CPT Kevin A'Hearn and 1LT Ben Zakariasen, 3rd Infantry Division
18. Team 21 — 1LT Timothy Robberstad and 1LT Andrew Nieminski, 4th Infantry Division
19. Team 6 — SGT Elliot Cochran and SPC Bridger Van Ness, 173rd Airborne Brigade
20. Team 22 — 1LT Michael Matthaeus and 1LT Roy Glasgow, 1st Cavalry Division
21. Team 20 — MAJ David David and 1LT Matthew Otterstedt, 4th Infantry Division
22. Team 3 — CPT Kristoffer Chamales and 1LT Peter Eulenstein, 82nd Airborne Division
23. Team 7 — SFC Keith Batchelor and SFC Dannon Sunga, 7th Special Forces Group
24. Team 42 — 1LT Christian Groom and 1LT Brett Schuck, 1st Infantry Division

Professional Forum

PROJECT WARRIOR:

BRIDGING THE GAP BETWEEN OPERATIONAL AND INSTITUTIONAL DOMAINS

LTC CHRIS BUDIHAS
CPT ROBERT W. HUMPHREY
CPT IAN C. PITKIN

You Haven't Heard? Project Warrior is Back!

As a result of high operational tempo and officer timelines not being able to support this great initiative over the last decade of war, the Project Warrior Program was jump-started by Chief of Staff of the Army GEN Raymond T. Odierno in the spring of 2013. At its foundation, the program is intended "to infuse observations and experiences gained from multiple, immersive Combat Training Center (CTC) rotations back into the Army through select professional military education (PME) courses."[1] Our Army rightly recognizes that through combat deployments to Iraq and Afghanistan, our core of company and field grade officers has built a wealth of knowledge and experience during counterinsurgency operations abroad. However, while unit training and leader development evolve as we focus on the range of military operations associated with unified land operations through decisive action, there is extreme value in placing hand-selected successful post-command company grade officers at our CTCs to serve as observer controller-trainers (OC-Ts) for upwards of 18 months and then placing them in the various Army Centers of Excellence as small group leaders/instructors (SGL/Is).[2] This initiative fuses these talented officers' operational experiences with CTC institutional experiences so they can profitably coach, teach, and mentor other company grade officers not only at the CTCs but also, perhaps more importantly, at the various captains career courses.

From the Field to the Classroom — What Are We Seeing?

The comprehensive list of lessons learned both at CTCs and in Maneuver Captains Career Course (MCCC) classrooms could fill volumes, and as the Project Warrior

An OC-T with the Operations Group, National Training Center, gives a safety briefing to Soldiers from the 3rd Armored Brigade Combat Team, 4th Infantry Division during Decisive Action Rotation 15-02 at the National Training Center, Fort Irwin, Calif., on 11 November 2014.

Photo by SPC Randis Monroe

Program matures, there will likely be a continuous flow of recommendations and best practices pushed back out to the operational forces. The relationship between CTC task forces and MCCC faculty continues to grow stronger so we can collectively have a shared vision of the challenges maneuver captains are having at the CTCs; then we, at Fort Benning, can address those issues in our classroom instructions and practical applications. Our Project Warrior SGLs at MCCC have been the connective tissue that has facilitated this blossoming relationship between the organizations.

That being said, this article is structured to provide our observations on the most significant company-level challenges observed across multiple rotations and in the classroom, involving all types of brigade combat teams (BCTs) executing a variety of missions. A number of key observations and lessons learned are centered on a leader's ability to effectively execute each step of the troop leading procedures (TLPs).[3] Many of these trends have residual effects that carry over to the battalion and brigade levels. By identifying and overcoming these challenges at the company level, there will likely be positive second- and third-order effects at higher echelons as well. The following are major trends observed on company-level TLPs:

Step 1: Receive the Mission — Company-level leaders often wait for a complete, written operation order (OPORD) from their battalion before beginning planning. Instead, when possible, leaders should initiate mission analysis and course of action (COA) development prior to receiving the OPORD from higher headquarters. An extremely common error continues to exist when leaders inadvertently set themselves up for failure by immediately getting behind on the one-third/two-thirds rule during the first step of TLPs. This further contributes to their subordinates not having time to plan and at times leads to mission failure or at a minimum creates friction during execution. They simply do not determine their time allocations for planning, preparation, or execution within the TLP process.

At MCCC, we issue a series of battalion warning orders (WARNORDs) during the company-level practical application OPORD process to force students to correct this deficiency and thereby reinforce parallel planning as early as possible throughout the operations process. Units in the operational Army must reinforce and emphasize parallel planning; issuing WARNORDs as more information becomes available during the planning process reinforces this practice.

Step 2: Issue a Warning Order — To compound the issue with step one, company commanders routinely fail to issue timely WARNORDs to facilitate subordinate parallel planning and preparation efforts. While trying to craft a near-perfect OPORD, commanders fail to relate information from their initial COA development into subsequent WARNORDs.

Currently, MCCC requires students to issue complete initial WARNORDs but does not require the issue of subsequent WARNORDs. The SGLs coach the students to issue a second WARNORD, but it is not required at this time. We find that it is an informal measure of effectiveness to see where and when in the program of instruction students start to "get it."

> *To aid the overall improvement of COA analysis as an Army, staffs must demonstrate the value of the wargame by conducting them to standard and thus setting the example for company commanders.*

Step 3: Make a Tentative Plan — When making a tentative plan, company-level leaders often conduct COA development sufficiently but fail to conduct COA analysis (wargaming) before selecting a COA. As a result, the commander hinders his ability to make accurate decisions, identify friction points, mitigate risks, and then synchronize a fully developed plan in time and space. Many of the holes or gaps in their plans can be identified and mitigated prior to execution if they take the precious time to wargame their plans. A wargame will give company commanders the tools (decision support matrix/template, synchronization matrix, execution checklist, etc.) they need to accurately synchronize the warfighting functions to accomplish the mission. Without going through the mental process of considering their unit's action, the enemy's counteraction, and their reaction to the enemy, company commanders fail to plan for contingencies, develop branch or sequel plans, and develop the tools needed to synchronize the entire operation.

MCCC SGLs are increasing their efforts to teach and coach maneuver captains through wargaming as the Army has been institutionally challenged in this area for more than a decade in our planning processes at the company level and above. Additionally, students in the battalion phases are getting a healthy dose of wargaming to standard in an effort to better prepare them as future staff officers. This is currently an unfortunate shortcoming of many battalion-level staffs. To aid the overall improvement of COA analysis as an Army, staffs must demonstrate the value of the wargame by conducting them to standard and thus setting the example for company commanders.

Step 4: Initiate Movement — Commanders understand the need to initiate necessary movement prior to the execution of their mission, but often lack the trust or confidence in their subordinates to execute the movement without direct oversight. One recent example from the National Training Center at Fort Irwin, Calif., highlights a mission in which a commander postponed his reconnaissance of a defensive engagement area to oversee the movement of his company into an assembly area.[4] Failing to sufficiently account for movement during the conduct of TLPs can completely desynchronize a unit's timeline. It is imperative that both institutional and operational training place a focus on fostering a certain degree of trust in and delegating responsibility to subordinate leaders.

Step 5: Conduct Reconnaissance — Currently, companies are severely unpracticed in planning and conducting reconnaissance in support of their operations. All tactical leaders, not just those in cavalry organizations, have to understand reconnaissance and information

Soldiers with the 82nd Airborne Division conduct operations during NTC Rotation 14-04.

Step 6: Complete the Plan — A reoccurring CTC observation is that companies often do not incorporate the requisite amount of tactical graphic or direct fire control measures to control maneuver and fire. During a recent teleconference with OC-Ts from the Joint Readiness Training Center at Fort Polk, La., we learned that only an estimated 33 percent of company commanders were assessed to use graphic control measures sufficiently.[5] One reason contributing to this issue is battalion OPORDs often do not include sufficient operational graphics and/or only provide intent graphics. Leaders later in the execution phase see their failure to use graphics properly when their scheme of maneuver becomes completely desynchronized and/or when fratricide occurs.

Most students report to MCCC untrained or unpracticed in the use of control measures (though most just came from the operational force). Therefore, MCCC

collection (IC) planning. A common, if not epidemic, trend is that maneuver commanders at all levels rarely develop IC plans in sufficient detail and fail to issue commander's reconnaissance guidance, which informs their maneuver plan. Reconnaissance elements and organic unmanned aerial system (UAS) platforms are not effectively used to answer priority intelligence requirements (PIR) or overwatch named areas of interest (NAIs) or targeted areas of interest (TAIs). The root cause behind this is that commanders rarely visualize or understand how their portion of IC ties into the higher unit's IC plan and their own ground maneuver plan. Companies need to fight for information to increase their chances for operational success by conducting a leader's reconnaissance using organic UAS assets and deliberately planning reconnaissance in support of their operations.

Over the last year, MCCC has made major strides to overcome this institutional gap in temporal understanding of the IC planning and execution, and how it's directly tied to successful mission execution. During both company and battalion-level practical applications at MCCC, the students are required to develop tactically executable IC plans that are thoroughly reviewed and critiqued by their SGLs in an effort to coach them to get more proficient in this institutional deficiency. While it would be developmental for all officers, leaders of specialized reconnaissance units (scout platoons/cavalry troops) should, without exception, be afforded the opportunity to attend specialized courses such as the Army Reconnaissance Course, Reconnaissance and Surveillance Leaders Course, and Cavalry Leaders Course in order to further their understanding of IC planning and operations. Doing so would increase the effectiveness of those units, but would also aid in reversing the widespread lack of understanding of IC.

SGLs spend a great amount of time emphasizing the proper use of maneuver graphics and direct fire control measures in all modules of the instruction throughout the course. The SGLs ensure the students strike the right balance between a lack of control measures and too many, then ensure they are using the right type of control measure within their plan's construct. The doer does what the checker checks so increased emphasis in the operational force through back briefs and leader checks on subordinate graphics will help all tactical leaders properly apply the science of control to their operations successfully.

Step 7: Issue the Order — The CTCs routinely state that the MCCC OPORD format and course standards are an effective model to build future company commanders who can provide logical, succinct, and complete orders to subordinates. At MCCC, we found that the operational Army through a decade of war has developed a "CONOP (concept of operations) generation" of officers. Officers have turned the CONOP, which was originally intended as a briefing tool, into a lazy man's way to plug and play tactical operations. This has led to officers simply filling in the blanks on a preformatted PowerPoint slide that has no depth of thought and fails in execution. The OC-Ts at JRTC have recently reported that approximately 66 percent of company commanders use the standard OPORD format they were taught during the MCCC while 33 percent revert to using a CONOP format.[6] The CTC observations have concluded that map boards and other analog OPORD products work well, and digital OPORD templates often lead to a more incomplete brief because digital formats tend to be based on CONOP templates. To fix this issue, the operational force should increase emphasis on ensuring company-level leaders brief complete OPORDs, which will facilitate a deep and shared understanding of the plan.

Step 8: Supervise and Refine — The CTCs often report that company-level leaders do not perform effective and thorough rehearsals prior to mission execution. Rehearsal guidance is supposed to be issued in the initial WARNORD and then executed to enforce tactical situational awareness prior to execution by all Soldiers in the formation, ensuring all assets and enablers are synchronized in the plan. Synchronization tools — such as execution matrices, decision support matrices, IC matrices, and operational graphics that are developed through wargaming — are used during these rehearsals.

Currently, MCCC provides instruction on the conduct of rehearsals, and students execute seminar-level rehearsals in each module of the company and most battalion phases. We also use virtual and gaming simulations to conduct execution of their plans to reinforce the importance of proper wargaming and rehearsals. The operational force's battalion-level leaders need to continue this effort by forcing company leaders to have solid standard operating procedures for rehearsals so they become well practiced in their conduct.

The Road Ahead

The Project Warrior Program has been instrumental in MCCC connecting with the CTCs, which are conducting evaluated tactical operations in a field environment, to purposefully refine our classroom instruction to produce a better maneuver captain upon graduation. Currently, MCCC has two Project Warrior SGLs, but over the next year we are projected to increase that number up to seven. Their wealth of experience from not only their time as successful company commanders but also as OC-Ts will undoubtedly contribute to our efforts to teach and prepare our MCCC students for the challenges ahead as they lead Soldiers in a complex world.

For this project to be successful well into the future, brigade and battalion commanders throughout the operational force must identify and recommend their strongest performing officers for this program to their Human Resource Command (HRC) branch manager. As per Military Personnel (MILPER)

Message 13-137, officers can be identified as early as senior lieutenants and must undergo several screenings through their progression to SGL.[7] These officers not only require a high level of institutional knowledge but also a natural ability to develop other leaders. With the right officers, the Project Warrior Program will continue to serve as a conduit to incorporate observations and lessons learned from the Army's operational force to its institutional instruction well into the future.

Notes

[1] MILPER Message 13-137, "Project Warrior Program Eligibility Criteria and Selection Process," issued 3 June 2013.

[2] ADP 3-0, *Unified Land Operations*, dated May 2012.

[3] FM 6-0, *Commander and Staff Officer Organization and Operations*, Chapter 10, dated May 2014.

[4] Monthly CTC and MCCC Lessons Learned Conference Call, dated 13 June 2014.

[5] Monthly CTC and MCCC Lessons Learned Conference Call, dated 24 August 2014.

[6] Ibid.

[7] Project Warrior Program Eligibility Criteria and Selection Process, issued 3 June 2013.

LTC Chris Budihas currently serves as the chief of tactics for the Maneuver Captains Career Course, Maneuver Center of Excellence (MCoE), Fort Benning, Ga. In his 27 years of military service, he has served in all forms of Army Infantry formations as well as service in Marine Corps' Marine Expeditionary Units (Special Operations Capable) as an Infantryman and officer. He has participated in nine combat and stability operations during his career. Most recently, he commanded a Stryker battalion in the 2nd Cavalry Regiment in Germany and Afghanistan.

CPT Robert Humphrey is a Project Warrior Program SGL at the MCoE and will attend the U.S. Army Command and General Staff College. His previous assignments include serving as a cavalry troop OC-T at the National Training Center, Fort Irwin, Calif.; commander of D Company, 1st Battalion, 64th Armor Regiment, Fort Stewart, Ga.; and platoon leader in A Troop, 1st Squadron, 4th Cavalry Regiment, Fort Riley, Kan., which includes multiple combat tours in Iraq. He is a 2005 graduate of James Madison University and holds a bachelor's degree in history.

CPT Ian C. Pitkin is currently serving as a Project Warrior SGL at the MCoE and will attend the U.S. Army Command and General Staff College. His previous assignments include serving with the 3rd Brigade Combat Team, 101st Airborne Division (Air Assault) from 2005 to 2009 (two combat tours to Iraq) and commanding two companies in the 1st Brigade Combat Team, 4th Infantry Division from 2010 to 2012 (one combat tour to Afghanistan). CPT Pitkin is a 2001 graduate of Kenyon College with a bachelor's degree in political science.

U.S. Army Soldiers from the 1st Battalion, 8th Infantry Regiment, 3rd Brigade Combat Team, 4th Infantry Division, prepare to rehearse a night mission during Decisive Action Rotation 15-02 at NTC on 11 November 2014.

Photo by SGT Charles Probst

BUILDING AN INFANTRY CULTURE
OF DOMINANCE

CPT VINCE DEMAREST

As leaders in the U.S. Army Infantry, we need to know how to strive beyond victory — we need to dominate. Olympic Champion Dan Gable's wrestling career, Alexander the Great's Battle of Gaugamela, Napoleon's Ulm-Austerlitz Campaign, or even Wayne Gretzky's NHL hockey performances were the products of dominance. Each leader was an extreme competitor who not only led his organization to beat its enemies but completely dominated them. These men did not strive just to participate, slip by with a close win, achieve an amorphously defined success, or be recognized by their peers. They were excellent, definite, and peerless. They sought to utterly crush their opposition.

But what is domination? It is controlled aggression to overwhelm the enemy and destroy his morale. Our Infantry band of brothers needs to embrace the idea of seeking not only to win against the enemy but also to remove its ability to reemerge. The enemy is more likely to regroup if it feels that victory is even possible. However, when the opponent's will and resources are depleted, any notion of a rematch becomes a distant fiction.

Sound leadership through training, resourcing, and tactical decision making makes units good. However, without the psychology of domination planted within the ranks, the unit will never dominate. Worse, if leaders do not develop this psychology in their troops prior to reaching the line of departure, more of their lives might be lost in taking the objective. This mentality begins with leadership. Below are the principles for doing just that.

Competition

War is a competition, and noncompetitive men will not emerge on the objective. A dominant unit develops a winning culture by consistently implementing healthy competition. After every stress shoot, physical training (PT) session, academic test, and live-fire exercise, an Infantry leader needs to reward competition publicly.

There are several techniques to do this. One is rewarding performance with trophies like the Best Ranger Competition's signature Colt 1911 pistol. Contenders will continuously see this highly visible, "in your face" symbol of dominance, and it will encourage them to practice and improve. Trophies are hardly revolutionary, but leaders often forget their purpose or shortsightedly consider them a childish detail.

Another technique is to publicly post results of tests and event results in common room areas. This provides another daily reminder that competition is valued and transparent in

Soldiers with the 4th Brigade Combat Team, 101st Airborne Division (Air Assault) navigate an obstacle during the brigade's Best Squad Competition on 9 April 2014 at Fort Campbell, Ky.

Photo by SGT Justin A. Moeller

the organization. Competition among squads, platoons, companies, and battalions promotes pride and improves unit performance. If Infantrymen don't value competition as a structure for ultimately dominating on the objective, leaders forfeit the exceptional. Lastly, leaders never decline a published challenge. They want to go, you want to go!

Teamwork

To create a dominant unit, leaders must understand the essentials of establishing a team. First and foremost, they let their unit know to make everyone and every unit around it better, but then state openly that it is the best — the alpha. With this bold statement will come hardship but also trust, social bonding, and identity for building a strong team on the line. Leaders must never lie to their men and always stand up for them when in need. Leaders uphold the standard but remain loyal and always have their Soldiers' best interests at heart. Trust is the foundation.

Cohorts are surely bonded in the freezing rain and in the enemy's midst, but teams can also bond by enduring hardships in the gym, during a competition, or through everyday life obstacles. The closest bonds are often those born through hardship. If Soldiers train hard, they will fight hard together. In the end, leaders must place emphasis on having members of their unit stick together at all costs and even encourage them to mass as one when sitting together, during their off time, or even when making questionable decisions at the local karaoke bar. Finally, leaders should never forget to reward them publicly as a team. (See the previous section on competition).

Leaders can also build a team by better defining its identity. There should be no confusion about where the unit comes from or what it stands for. If the team hasn't already done so, it should begin by labeling itself something aggressive, honorable, and with heritage (i.e., the Reapers, Rangers, Devil Dogs). This draws Soldiers closer as a team, and they can unite under one moniker or maybe with a unified mantra, like "death before dishonor." Most Infantrymen have high levels of testosterone, want the bravado, and want to associate themselves with something hard.

Aggressiveness

Creating a habit of controlled aggression and calculated risk should be promoted daily within our modern day Spartans. Our culture is often uneasy and apologetic with masculine aggression. However, aggressiveness is a must if

Photo by SGT Matthew Minkema

U.S. Army Soldiers from the 1st Battalion, 24th Infantry Regiment prepare to attack a town during Decisive Action Rotation 15-03 at the National Training Center at Fort Irwin, Calif., on 3 February 2014.

the unit wants to dominate its opponent while under fire. This attribute must prevail throughout competitions, exercises, and assessments as well. If a leader attacks obstacles consistently, his men will follow suit. If the leader doesn't exude a demeanor of ruthless attack during training exercises, his men will, unfortunately, follow suit. Does this mean that the only maneuver, the only reaction, the only decision should be forever and always to attack? No. That would create a dangerous predictability and would assure some eventual violation of the principles of strategy. However, given the fight or flee response choices, a unit's choice must be to utilize aggression and work the subtleties from there. With this, leaders will assume risk and even with proper mitigation will inevitably at times press too far. However, if leaders don't accept risk, they should stay on the bench. It is also important to note that aggressiveness does not mean screaming and cussing — although there might be a right moment even for that. Rather, it simply means diligently and decisively relaying orders, taking actions, or conducting practices with dominating intent. From the beginning of time, aggression has been a staple of winning in combat. Even the reserved, noble genius Robert E. Lee understood and promoted it on the field of battle. That is why grappling, Iron Man competitions, King of the Hill, and other physical and mental challenges are often part of a solid martial training culture. If leaders are not promoting any of the above, they should think about how to start. All great Infantry units respect aggression, and so will your enemy.

Fundamentals

If the basics are not habitual practice within the ranks, the unit will eventually fail. Having an altered uniform, a cool kit, or several years in service does not necessarily equate to knowing the fundamentals. Practicing the basics is not sexy, but victory and dominance are very sexy. If leaders push their

Soldiers into a system that highlights the fundamentals, they will revert to those fundamentals when they get tunnel vision or sucked into the fog of war. Leaders who dominate should focus on the basics (land navigation training, marksmanship, PT, and battle drills), and they should read professionally to maintain their martial literacy. Kenny Powers — the fictional, crude, ignorant, baseball-playing main character of cable television show *Eastbound & Down* — once said, "Fundamentals are a crutch for the talentless." For units to dominate, they must humble themselves and understand they are not as talented as they may think.

Communication

In the beginning, a leader needs to understand the goals and outcomes for the organization. Goals that are specific, measurable, attainable, reasonable, and timely are ideal. However, he should not sell his unit or himself short on the reasonable part. We are daring to be great, not striving for mediocrity. Also, having buy-in from the other members of the team while analyzing what the leader wants to be is no revolutionary concept, but it is one that is often overlooked.

A good leader genuinely seeks his Soldiers' input and understands that his initial assessment of goals may be misplaced. If he wants to cultivate and communicate effectively to build a pipe-hitter unit, he needs to be straightforward and honest. This is a must with any unit; however, Infantrymen especially value honor and candor. The strong leader looks his men in the eyes and hands them a straight message. Beating around the bush is nowhere near alpha behavior.

It is also important to recognize that within most groups there is a formal leader and an informal leader. In a small Infantry unit, the informal leader might be a socially savvy specialist or an NCO who is able to influence his peers via humor or experience. If the leader discovers he is the formal leader but not the informal one, he must ensure the Soldiers in his unit understand the "why" of daily operations so the informal influencers can help him achieve the end state. Nothing kills a message like a negative informal influencer who undercuts the formal leader behind the scenes. Instead, the formal leader should get that person on board via effective leadership techniques and communicate with him directly.

The medium used to put out information is important as well. The leader might try using the information dissemination website "Campfire," which allows Soldiers to quickly transmit ideas, messages, timelines, humor, and call outs. Using technology may very well make the unit's dominant culture go viral. If not something like Campfire, leaders should consider implementing another form of dissemination. Initial posts via text, email, Facebook, Twitter, or any other form of social media can set the conditions to follow for future posts and videos, so leaders must choose carefully. Along with messaging, if the unit has an official code/creed/motto, or for that matter a rule book, vision statement, mission statement, core values, outcomes, or end states, you can show your Soldiers via rhetoric and direct messaging that dominating is a priority in your organization. If the leader wants communication to his unit to be great consistently, he

> *A leader can be extremely charismatic and intelligent, but if he doesn't share radio guard or lead his men on that 16-miler, he won't lead a great unit (and probably not even a good one). Basic leadership lessons like sharing hardship, never insulting your subordinates in front of their Soldiers, and genuinely caring for Soldiers when in need will always be ingredients for making a dominant unit.*

needs to have the messaging and rhetoric readily available. Remember though, face-to-face communication is still best.

Setting the Example

Basic leadership principles don't lose their impact. A leader can be extremely charismatic and intelligent, but if he doesn't share radio guard or lead his men on that 16-miler, he won't lead a great unit (and probably not even a good one). Basic leadership lessons like sharing hardship, never insulting your subordinates in front of their Soldiers, and genuinely caring for Soldiers when in need will always be ingredients for making a dominant unit. If the leader is going to demand his men set the example (for instance, entering the breach when casualties are imminent), he needs to be willing to do the task himself. He should also give subordinates the credit for things that go well and accept blame when they do not (remember how Eisenhower wrote a note taking all the blame for D-Day in case it had gone badly). Most of us have heard these things so often they are almost clichés, but it is hard not to notice when our leaders act as though they have forgotten the basics or that they apply only to others. We should always see the best in our Soldiers, too, as they are often projecting the best lessons. We should let them lead by example, making tough, responsible decisions their purview. If we want our men to dominate, we need to get this one right.

There is risk in the principles listed above. Creating a dominating unit doesn't necessarily guarantee we won't run into a dominating unit in the field. That's life. However, if we do not adhere to these principles by doing everything in our power to crush our enemies, a stronger enemy may emerge as a much deadlier rematch. Every great Infantryman wants to be great via domination on the objective. As leaders in the U.S. Army Infantry, we owe it to ourselves and our Soldiers to understand how to make this happen and to act accordingly.

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THE TACTICAL ENGAGEMENT TEAM CONCEPT:

OPERATIONAL EMPLOYMENT OF DCGS-A IN SUPPORT OF MISSION COMMAND

MG ROBERT P. ASHLEY
COL WILLIAM L. EDWARDS

Introduction

As the Army faces the challenges of the new operating concept "Win in a Complex World," Intelligence Warfighting Function (IWfF) training will increasingly focus on how we fight our primary weapons system to support expeditionary operations with light and lethal formations capable of deploying quickly. This new environment will be increasingly dominated by the proliferation of technology and rapid information exchange. Now more than ever, intelligence Soldiers are realizing that attaining and maintaining proficiency in the use of key mission command systems is essential for success. The challenge is that individual Soldier skills have atrophied, and leader knowledge has not kept pace to fully employ the Distributed Common Ground System-Army (DCGS-A).

We must teach and understand our weapons system from an operational employment perspective that focuses on interoperability and seamless intelligence in new operating environments. For the IWfF, this means our ability to fight DCGS-A has never been more important. To that end, we at the U.S. Army Intelligence Center of Excellence (USAICoE) have engaged in a deliberate effort with Forces Command (FORSCOM) and the Intelligence and Security Command (INSCOM) in establishing a tactical engagement team whose purpose is to enable intelligence Soldiers to fully employ their weapons system, DCGS-A, within the context of executing their core intelligence tasks. This IWfF training model will close the gap between "schoolhouse" and unit collective training responsibilities to alleviate the lack of knowledge and confidence to operationally utilize DCGS-A.

The Tactical Engagement Team Concept

The tactical engagement team concept incorporates a team of subject matter experts (SMEs) from across the Intelligence Corps that plans, coordinates, and executes training to specifically enable leaders and Soldiers to go beyond simply understanding functionality of the system tools.

The concept is operationally focused on the system of systems that makes DCGS-A a key enabler in the overarching umbrella of the Army Battle Command System (ABCS). A team training event begins by focusing the intelligence professional on the tactics, techniques, and procedures (TTPs) of employing DCGS-A tools that specifically support the commander's decision-making cycle and processes.

Rather than focusing on basic "buttonology" or training with our junior Soldiers, the unit is engaged as a whole — from the division commander and his key staff through battalion NCOs and junior analysts. To accomplish this goal, the tactical engagement team concept is designed around the following principles:
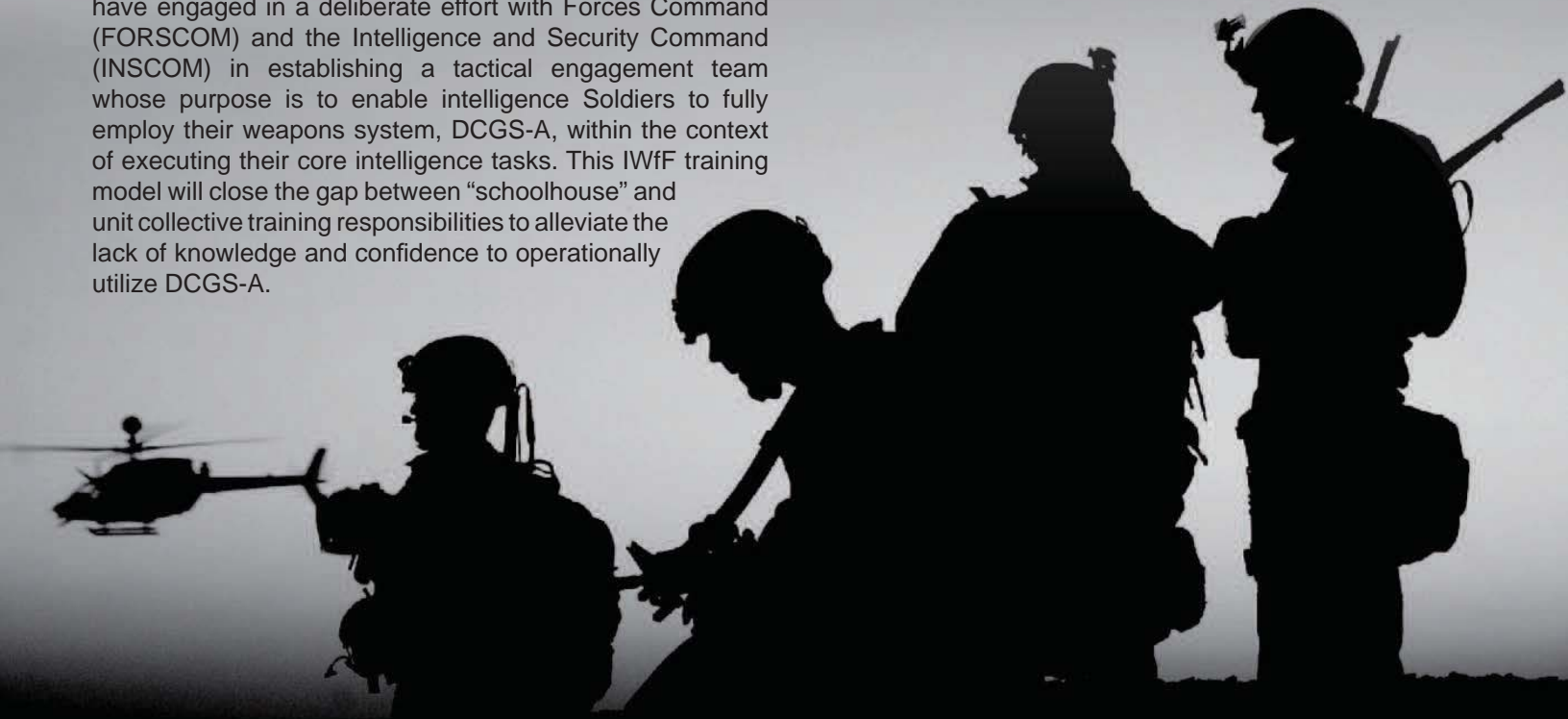
◆ Train intelligence leaders on how to employ the system

◆ Train intelligence leaders and Soldiers how DCGS-A enables mission command

◆ Show intelligence leaders how to establish the brigade combat team intelligence team on the network 24/7

◆ Show intelligence leaders and senior trainers "a way" to train the team to support the commander

◆ Tailor the tactical engagement team to the unit's needs then organize, plan, and execute based on unit objectives

Though each engagement is uniquely tailored and based on unit objectives, the tactical engagement team concept focuses on a broader understanding of the system as it pertains to the unit's mission and its place in the overall architecture.

Proof of Concept

In April 2014, the U.S. Army Training and Doctrine Command (TRADOC) Capability Manager-Sensor Processing (TCM-SP) determined there was a gap in understanding the employment and use of the system of systems that gives DCGS-A its true power. The system, not unlike other complex technology, requires up-front proficiency from an individual perspective, but also an understanding by leaders of how the system should be employed and what tools it brings to the intelligence community in support of planning for operations, executing current operations, and preparing for future operations — essentially the intelligence cycle during combat operations.

The idea of tactical engagement teams was to teach intelligence professionals how to operationally tie-in DCSG-A to the ABCS network and use its tools to conduct intelligence preparation of the battlefield (IPB) in support of the commander's military decision-making process, a foundational requirement of battle command. Additionally, the team trains the importance of collaboration and near-real time sharing of intelligence with operational partners as staffs attain and maintain a common operational picture that provides the unit a holistic and common understanding of the situation.

Realizing the span of this problem set, tactical engagement teams were scoped to focus initial efforts on the 11 active-duty divisions, their intelligence, operations, and communications teams (G2, G3, G6), and specifically the senior intelligence officer of each formation. After initial concept development, TCM-SP proposed the idea to the Army's divisional G2s and asked for a unit to step forward and help provide a proof-of-concept training event.

With command emphasis/focus and history with DCGS-A, the 1st Infantry Division G2, LTC Marc Spinuzzi,

The foundational principle of tactical engagement team centers around the unit and its identified shortfalls as it pertains to the ability to provide intelligence to the tactical commander while utilizing and fighting DCGS-A as its weapon system. The tactical engagement team essentially tells leaders to look at their formations, honestly assess their capability, and determine where they need help. Tactical engagement team leadership then takes this information and assembles the SMEs from across the intelligence enterprise to teach, coach, and mentor those areas identified by the unit.

volunteered to provide the venue for the proof of concept with his entire division IWfF.

"Our DCGS-A demonstration was not intended to 'sugar coat' the system — we talked about what it does well and what it doesn't do so well. The two biggest problems we discussed were training and the DCGS-A interface. While there are plenty of training opportunities available for DCGS-A, we had found that most of them focused on a narrow set of tools. There were several great tools in DCGS-A that simply weren't being trained anywhere — tools like the Threat Characteristics Workcenter (TCW) and the ISR Synchronization Tool (IST).

The DCGS-A interface was also a common complaint. The system simply does not come across as "user friendly." It isn't intuitive, so Soldiers often struggle to find the tools they are looking for or to quickly make use of the ones they know. We thought we had a good solution to these problems. We needed to get our Soldiers to talk to someone who could listen to their thoughts and opinions and help adjust the training and the interface."

— LTC Marc Spinuzzi

Figure 1 — Timeline Glide Path
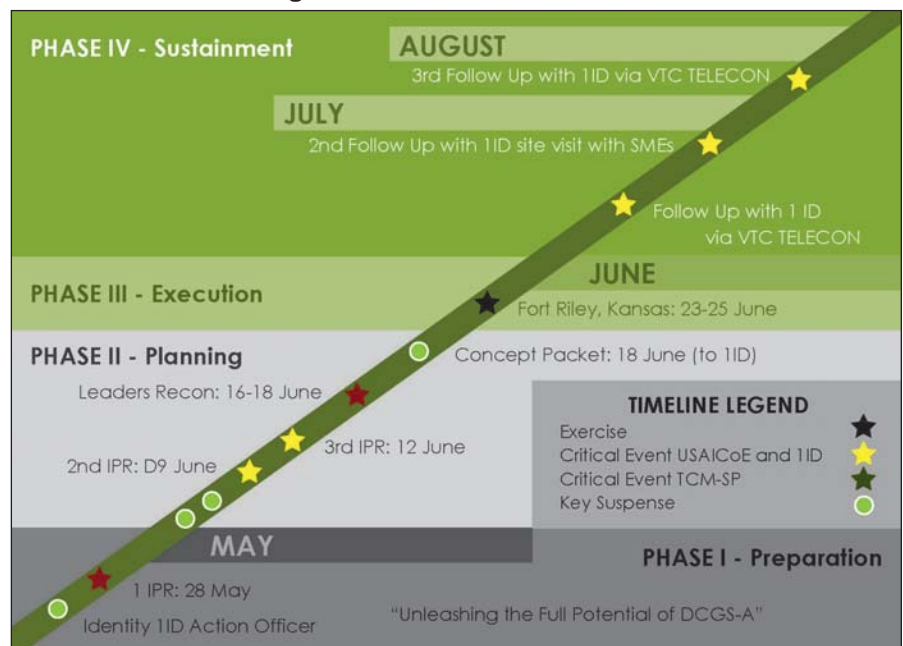
TCM-SP saw an opportunity to implement the new vision of "unleashing the full potential of DCGS-A, one tactical formation at a time" to provide the resident knowledge to build confidence and competence in the system. Rather than simply respond by sending a few trainers as LTC Spinuzzi anticipated, TCM-SP requested a complete list of 1ID's training objectives. They then put together a team of SMEs, drawn from not only TCM-SP but the entire DCGS-A enterprise, for a multi-day event at Fort Riley, Kan.

Over a 60-day period, the DCGS-A tactical engagement team facilitated a series of collaborative and interactive planning sessions with the 1ID chain of command and LTC Spinuzzi's intelligence teams. TCM-SP and 1ID staff linked each training event to training objectives and coordinated with numerous other organizations to provide SMEs for the team and support for the concept. Figure 1 depicts the glide path the two organizations followed to execution.

The June 2014 engagement at 1ID started in the joint operations center. The 1ID G2, through the division G3, cut orders to all subordinate units within the division that required the division's IWfF personnel to attend training. This was critical and is now a standard for future tactical engagement team forums as seats were filled with commanders, S2s, and intelligence personnel from the outset. The event began with an introduction brief focused on educating commanders and staffs on DCGS-A capabilities. The assembled team of almost 30 SMEs was made up of individuals from the TCM-SP, Program Manager DCGS-A; USAICoE NCO Academy; Training, Doctrine, and Support; New System Training and Integration Directorate, and the DA G2. SMEs from all over the country came together with one clear objective — build leader and Soldier confidence, understanding, and competence of how to successfully employ DCGS-A.

Soldiers and leaders of multiple intelligence military occupational specialties (MOS) were trained in a myriad of system tools during a three-day event that focused on intelligence production and ABCS system interoperability. The tailored training is depicted in Figure 2.

Issues identified were corrected on the spot. Tactical engagement team members were able to make on-the-spot adjustments to the Intelligence Fusion Server (IFS) configuration. During the event, they identified that the division would benefit from a "fixed site" configuration rather than their current deployable setup. This adjustment allowed users to have access to all data sources around the world rather than continuously changing to different areas of responsibility with specific data source sets. This minor change alleviated the burden of updating the endpoint for the IFS for data mining and simplified their data management. The organic Field Service Engineers (FSEs) assigned to 1ID also gained direct lines of communication with key personnel from the team which enabled their ability to provide continued service once the event concluded. Figure 3 depicts the 1ID's overall training objectives and how TCM-SP resourced each to meet their requirements.

Soldiers and leaders alike were directly connected to experts for each facet of the system and were encouraged to use those connections to further educate themselves and train their Soldiers. Overall, the engagement laid to rest some of the false perceptions of DCGS-A and demonstrated it provides a robust capability that when understood, trained, and employed properly, will satisfy the commander's intelligence requirements.

"Key to our success was establishing command emphasis with brigade commanders to provide three uninterrupted and focused days of training enabling the opportunity to connect our intelligence community across [Fort Riley] and discuss trouble areas, TTPs and lessons learned in a near rankless environment. Senior intelligence leaders had a chance to pass on their lessons learned to junior intelligence Soldiers.

Figure 2 — Tailored Training

The tactical engagement team is designed to specifically meet the needs of the division. All events were planned in cooperation with 1ID and specifically tailored to focus on 1ID's objectives.	

• **Threat Characteristics Workcenter**
 • **DCGS-A architecture**
     Data architecture
     Architecture from the analysis perspective
     Architecture of systems interoperability
 • **Employment of TGS across the brigade**
     35T
     35G
     Leaders overview
 • **MFWS best practices**
     User and mid-level leadership
     Leader overview
     OMT MFWS integration
	• **Set up and maintenance of trojan**
	 • **Establishing brigade intel training**
	 ☐ Network configuration
	 ☐ 35T vs FSE support
	 ☐ SIGINT
	 ☐ Weather
	 ☐ Biometrics
	 ☐ Data management expertise tactical
	 ☐ Entity Database (TED) - DA IIS
	 • **GWS interoperability/configuration**
	     35G
	     35F
	 • **SAGE**

• **IST briefing. QT search, text extraction, link diagram, visual entity browser, time wheel** • **ABCS interoperability - establishing "how" to move messages from DCGS-A to mission command** ☐ **Additional training identified by unit**	

Figure 3 — Collective Training Objectives

Junior intelligence Soldiers provided candid bottom-up feedback. The majority of our after action report comments were requests for 'more,' which was a great sign."

— LTC Spinuzzi

Capitalizing on the momentum, TCM-SP has begun the process of engaging other senior leaders across the Army in an effort to offer similar training. The DCGS-A tactical engagement team is quickly becoming a "must have" for G2s that shows a tailored, deliberate approach to the system can and will instill confidence in DCGS-A at the unit level.
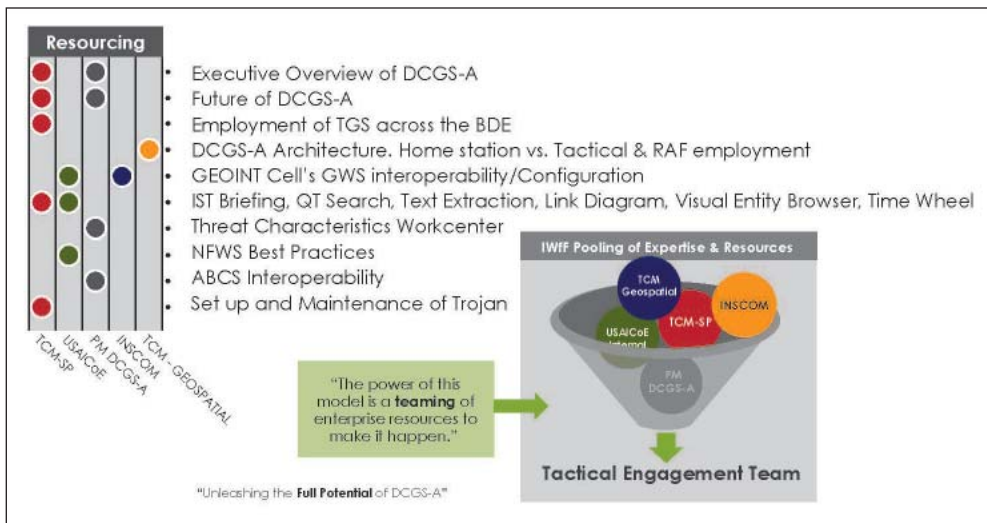
Throughout the combined planning process with TCM-SP, commanders, S2/G2s, and units drive the composition of the tactical engagement team by identifying training requirements as well as gaps in knowledge and capabilities. As such, each team is organized, planned, and executed based on unit-specified objectives, giving it a tailored feel. TCM-SP, in coordination with the unit, builds a unit specific training strategy that complements existing program manager functionality training associated with new equipment training and doctrine, tactics, and techniques (DTT). Also, post-DTT, collective training strategies are established and are nested with FORSCOM G2 and INSCOM. The entire concept is a series of building blocks using existing systems provided by senior intelligence leadership. It holistically looks like this:

◆ Program manager provides functionality training when equipment is fielding.

◆ New Systems Training Division (ICoE) provides a 90-hour, IPB-focused training course to assigned analysts.

◆ INSCOM, through Foundry, provides DCGS-A advance production training to intelligence leaders.

◆ Tactical engagement team provides system of systems training, specifically focusing on operational employment and interoperability including focused training on tools or system components.

◆ Foundry sites provide sustainment training and offer internal collective training venues using the Intelligence

and Electronic Warfare Tactical Proficiency Trainer (EWTPT).

◆ Training centers bring it all together by providing an environment that is truly ABCS centric.

Communicating Best Practices

The DCGS-A tactical engagement team concept facilitates the sharing of lessons learned, TTPs, and best practices throughout the Army. Each engagement provides a unique opportunity to collect and share Army-wide success stories on system employment, Combat Training Center best practices, regionally aligned force best practices, and TTPs for decisive action and counterinsurgency missions. Peer networking is another key benefit. Solid relationships facilitate continued sharing of ideas between formations long after the engagement is over.

As the tactical engagement team continues to engage the force, the collective knowledge will be socialized across formations and documented for use by the entire force. The tactical engagement team also provides leave behind products such as brigade training plans, TTPs, tactical standard operating procedures (TACSOPs), SOPs, and sample products to further enable unit success.

Tactical Engagement End States

The tactical engagement team strategy seeks to address current DCGS-A challenges at both the strategic and tactical levels. The end state is tactical commanders who are confident in their S2's ability to help them with battlefield visualization: *see themselves, see the enemy, and see the terrain.*

The unit's intelligence professionals gain confidence and improve their ability to complete MOS-critical tasks using DCGS-A. They understand the "so what" of producing intelligence products, are able to interface with the Army's ABCS architecture, and are confident and proficient at employing DCGS-A to its full potential in order to meet the commander's requirements. Unit intelligence Soldiers also gain a basic understanding of system troubleshooting skills, thereby reducing the reliance on contract FSE support.

The unit's intelligence leaders understand DCGS-A from a system of systems perspective and learn to ask the "right questions" pertaining to employment and intelligence product development. Additionally, they learn where to turn for assistance when required and how MOS 35T MI Systems Maintainer/Integrators can assist with technical issues. Lastly, confident and competent in its use, they are able to fully leverage the potential the system was designed to provide a tactical commander.

DCGS-A tactical engagement teams also assist the unit's intelligence team by providing a start point on "how

Command emphasis and participation in the preparation, planning, and execution are vital to the success of DCGS-A tactical engagement team. As such, it is a command-driven event, ensuring staff participation and unit support. Commanders also gain a better understanding of how DCGS-A, and the supporting architecture can better enable mission command functions.

Figure 4 — Strategic and Tactical Engagement Concepts
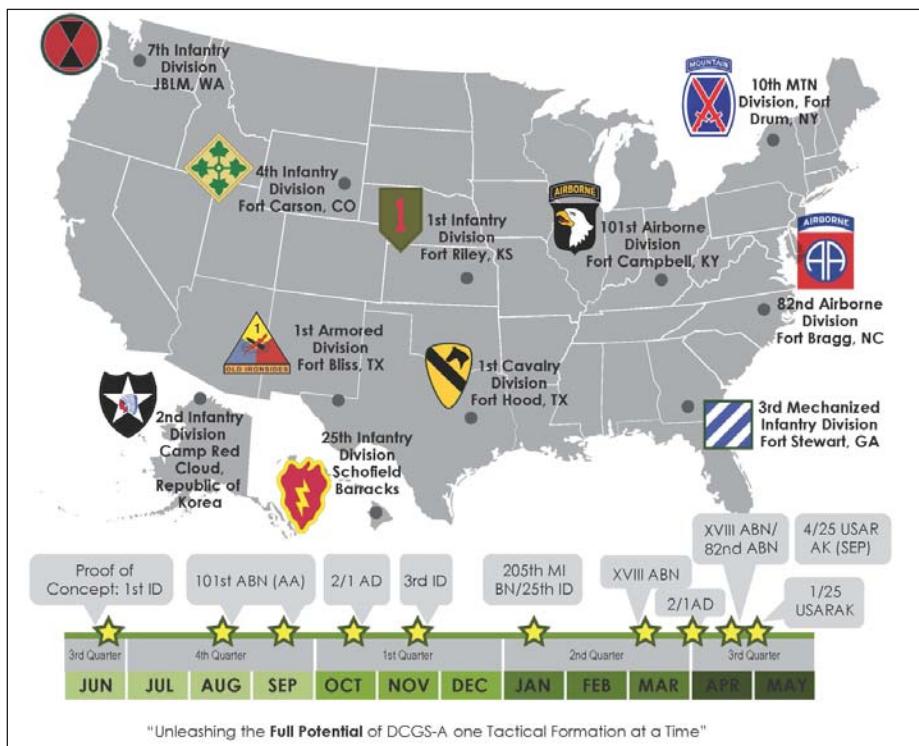
Figure 5 — Strategic and Tactical Engagement Concepts

to" train the intelligence discipline as a team versus individual MOS skills acting independently. They learn that working in concert with the other warfighting functions provides a powerful tool for command decisions. Most importantly, through integrating DCGS-A training with the unit's ABCS, the unit understands how to fight using DCGS-A to support mission command.

The Way Ahead

Figure 5 is a snapshot of the way ahead. Units from across the Army are taking advantage of the tactical engagement team concept.

Conclusion

The tactical engagement team concept has given the force needed help in an age of complex technical systems. It provides the bridge between institution and collective training responsibilities and helps unit leaders and Soldiers better understand what the system does and how it helps them support their commander's decision-making process.

DCGS-A by design is expeditionary and tailorable; it takes large amounts of data and provides structure to enable an analyst to clearly see through the fog of war. Tactical engagement unleashes and puts the potential of this system into the hands of our warfighters.

"TCM-SP brought in a world-class team of experts to address everything from DCGS-A best practices to brigade-level training strategies. The tactical engagement was a resounding success."

– LTC Spinuzzi

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COL William L. Edwards is the TRADOC Capability Manager for Sensor Processing. Prior to this position, he executed duties as the TRADOC Capability Manager for Biometrics, Forensics and Machine Foreign Language Translation. Before being assigned to Fort Huachuca, he attended the United States Naval War College, graduating in July 2013 with a master's degree in national strategy and policy. His most recent tactical assignment was as commander, 3rd Brigade Troops Battalion, 4th Infantry Division during Operation Iraqi Freedom and Operation New Dawn from 2009 through 2011. He also holds a master's degree in personnel management/administration from Central Michigan University.

Broadening Leaders, Sharpening Minds, and Developing Differing Perspectives

MAJ TIM MEADORS

"I encourage our leaders to seek broadening assignments in the National Capital Region. It is important as we build the Army of the future that we have sharp minds and differing perspectives at the helm."

— **GEN John F. Campbell**
In his last email as the Army's Vice Chief of Staff,
14 August 2014

The security environment around the globe presents a number of challenging and complex problems that require leaders at the tactical, operational, and strategic levels to think critically and implement creative solutions. Choices are often made by decision makers with an incomplete understanding of the environment, but they must be made nonetheless. As GEN Campbell conveyed in his email, the Army needs broadened leaders with "sharp minds and differing perspectives" to navigate through these challenging situations. The National Capital Region (NCR) provides the landscape for a number of opportunities to build these characteristics. The 3rd U.S. Infantry Regiment (The Old Guard) provides one of the premier broadening opportunities to sharpen minds and develop differing perspectives for adaptable and agile Army leaders.

I am fortunate to have led a platoon in the 4th Infantry Division during a 2003-2004 deployment to Iraq, worked as an assistant S3 with the 101st Airborne Division during a 2005-2006 Iraq deployment, commanded a company with the 101st during a 2007-2008 Iraq deployment, and served as a battalion S3 in Afghanistan with the 1st Infantry Division in 2013. The first three deployments set the conditions for a successful broadening experience as an Army Congressional Fellow from May 2009 to May 2013. The fellowship expanded my perspective as I transitioned from a company grade to a field grade officer. Both my time in combat and my broadening experience on Capitol Hill equipped me for the challenges I now face as The Old Guard's Regimental S3. The Old Guard, my operational experience, and my time on Capitol Hill provided a unique opportunity for me to sharpen my mind and broaden my perspective.

The Old Guard has long been regarded for the professionalism and precision it displays at the highest level. Whether executing a state funeral to honor the life of a deceased president, sharing the Army's story with thousands of people during a patriotic performance, conducting funerals in Arlington National Cemetery, or preparing to reinforce security in the NCR as a contingency force, Soldiers in The Old Guard operate in a strategic environment. The missions require Soldiers who can flawlessly execute a live performance in front of thousands one day, conduct squad live fires to standard the next, and honor a fallen comrade during a funeral the following day. Each operation is executed while also being fully prepared to initiate an n-hour

Infantry Soldiers from the 4th Battalion, 3rd U.S. Infantry Regiment perform a colonial charge while re-enacting a scene from America's history. The unit is modeled after General George Washington's personal guard during his tenure as the Commander-in-Chief of the Continental Army during the American Revolutionary War.

Photos by Alison K. Connors

Above left, tomb sentinels complete a changing of the guard at the Tomb of the Unknown Soldier at Arlington National Cemetery. Above right, a Soldier with the 1st Battalion, 3rd U.S. Infantry Regiment portrays a Buffalo Soldier during a Spirit of America 2014 tour event.

sequence in response to being activated for a state funeral. Each mission offers no room for error.

Strategic Significance. The Army's arsenal includes several organizations with unique capabilities that produce phenomenal effects when employed. These effects are often decisive contributions that provide a distinct advantage. The Old Guard is the primary organization the Army and the Department of Defense employs to demonstrate the military's character, competence, and commitment to strategic audiences that include the American people, senior leaders in the U.S. government, and foreign dignitaries. Soldiers in the unit convey messages that inspire and represent the Army's values and history.

The Old Guard's range of missions places the unit in positions to become the populace's permanent view of the Army. Every four years Soldiers in The Old Guard participate in the Presidential Inauguration. Twice a year millions around the world watch Soldiers from The Old Guard honor our fallen and veterans during Presidential ceremonies on Memorial Day and Veterans Day. Annually, another nearly five million tourists from around the world join with Soldiers from The Old Guard during the 24-hour vigil at the Tomb of the Unknown Soldier. The Spirit of America tour, where more than 40,000 Americans watch a live performance during a three-city tour, is yet another venue where America and America's Army unite in honor of our great nation. These events combine with daily funerals in Arlington National Cemetery. Regardless of the time or place, when The Old Guard is employed, the strategic effect is a lasting impression

of the prestige, professionalism, and values of today's Army.

Broadening Opportunity. The increased emphasis on broadening leaders and the number of opportunities now available show the Army's deliberate path to grow leaders able to solve complex problems. GEN Campbell alluded to the importance of differing perspectives when engaging difficult problem sets. The diversity of the Army's contemporary operations proves the need for problem solvers that think critically, implement creative solutions, and incorporate perspectives developed during broadening experiences.

Leaders in The Old Guard are groomed to succeed in these fluid, high stress, and no-fail situations. They display a high degree of agility and adaptability when operating at the strategic level. Prospectively, the regimental commanding officer (RCO), COL Johnny Davis, provided a vision for leaders in the organization that builds on their proven record

Regimental Commanding Officer's Vision

The Old Guard is a ***learning organization*** that is strategically employed by the U.S. Army and the Department of Defense to tell the Army's story and represent the U.S. military. The fabric of The Old Guard is physically fit, morally straight, and operationally adaptable Soldiers who embrace the importance of our mission as the face of the Army while conducting memorial affairs, ceremonies, special events, and contingency operations. The pillars of The Old Guard are leaders that are agile under pressure, adaptable to new environments, relevant to the Army's mission, and intelligent warriors that provide the predictability, training, and vision needed to excel in the joint, inter-agency, inter-governmental, and multi-national environment.

as warfighters. His vision describes the need for "leaders that are agile under pressure, adaptable to new environments, relevant to the Army's mission, and intelligent warriors that provide the predictability, training, and vision needed to excel in the joint, inter-agency, inter-governmental, and multi-national environment."

Success is the only option for The Old Guard. The RCO's vision also outlines that Soldiers assigned to the formation are expected to be "physically fit, morally straight, and operationally adaptable." To succeed in The Old Guard, the individual must possess the intestinal fortitude, resilience, and strength the Army expects of physically fit Soldiers; exude the Army values and possess high levels of both character and competence as a morally straight Soldier; and demonstrate the agility needed to operate in different settings while also adapting to new environs.

Not everyone can successfully operate in unfamiliar zones. Those who feel they can navigate in a strategic environment while representing the Army should consider The Old Guard as an option for a future assignment. Although an Infantry regiment, positions are available for most military occupational specialties and a variety of ranks.

Leaders with Soldiers in their formations who have sharp minds, need a differing perspective, and would benefit from a broadened outlook should encourage their subordinates to pursue a position in The Old Guard. Those looking for a challenging assignment in a strategic environment should apply for a position in The Old Guard. The Army needs the best and brightest to represent the values, lineage, and decisive force we provide to the United States. The Army needs those same leaders to employ differing perspectives in a complex and increasingly unstable world. Anyone interested in pursuing GEN Campbell's charge and experiencing something new should file an application at http://www.oldguard.mdw. army.mil/join-us.

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Old Guard Soldiers create a path through tall grass during a squad live-fire exercise at Fort Indiantown Gap, Pa., on 4 December 2014.
Photo by SSG Luisito Brooks

ARMY CENTER FOR ENHANCED PERFORMANCE:
A COMMANDER'S RESOURCE TO DEVELOPING CONSISTENT PEAK PERFORMANCE

CPT JOHN J. DIBBLE III

Thousands were watching in the stands. The Titans were trailing by two points on the opponent's 30-yard line. They had 10 seconds left to come back and win the playoff game. The kicker ran onto the field. The game was on the line, and the weight of winning was now on his shoulders. He made this kick 32 times already this season, but now he had the stress of the circumstances.

Sports psychologists make a profession out of training athletes for moments just like this. The ability to manage stress effectively so that it minimally impairs performance is an essential skill for any athlete. The U.S. Army realizes that this skill is not exclusively important to athletes. Soldiers patrol the streets and mountains of Afghanistan daily with the expectation that when their life is on the line their brothers and sisters around them will perform at their best. I have deployed, and I have seen and heard of many instances where this is not always the case. This is by no means a fault of the Soldiers. On the contrary, the struggle of mental fitness is a reality to all, and the Army is desperately trying to understand how to influence it.

Army Center for Enhanced Performance (ACEP)

The Army created the Center for Enhanced Performance (CEP) in the early '90s with a mission of accomplishing just that — understanding mental fitness and how they can develop it across the force. It has evolved and improved over the years and is now part of the Comprehensive Soldier and Family Fitness (CSF2) program. The mission remains unchanged. ACEP incorporates decades of scientific research conducted within the sport and performance psychology fields and employs specialists to coach, teach, and mentor units and leaders on how to improve mental toughness into their already existing training plans.[1] ACEP is an outstanding resource, which provides the necessary educational model, delivery method, and results needed to transform a tactical commander's approach to mental fitness.

As I prepare for company-level command, I have reflected on my experiences as an Infantry platoon leader for three years. I experienced the entire Army Force Generation (ARFORGEN) process through the progression from individual tasks to collective tasks all the way to a deployment. The training we conducted prior to the deployment undoubtedly made us physically, technically, and tactically strong. Rarely while deployed were we ever underprepared in those respects; however, there were surprises when it came to our mental strength. It was common for one or two individuals at a time to waver under the stresses of life, a career, or combat. We did not patrol and conduct missions at peak performance every day like we expected. I understand that to expect this is slightly idealistic; on the other hand, I believe I should have exposed my platoon to more training covering the aspects of mental toughness and how it contributes to one's overall performance. ACEP is an asset that would have provided the mental skills training we needed.

I was first exposed to CEP as a cadet at the U.S. Military Academy at West Point, N.Y. I was on a team for a number of years that trained and prepared for the annual Sandhurst Competition. More than 50 teams competed over the course of two days on a wide variety of military and team-building assessments. We trained almost every day for that competition. As you can imagine, the event inflicted great amounts of stress. Each member of the team relied on the others to perform at their very best. After placing second one year, we heard that the first place team had solicited help from CEP. This, of course, encouraged us to work with them the following year. I was immediately impressed. The CEP specialists were professional and worked with us to design an individualized plan that met our needs and molded into our training regimen.

I sought them out early on as a platoon leader after learning of their presence at my post. They were just as notable as I had remembered, and they helped us significantly during the months of individual task training. Unfortunately, as we progressed further into collective training in the subsequent year, I failed to incorporate them further to reinforce the concepts they stressed. I have come to believe this was one of the main reasons why our mental strength was one of our weaknesses during the deployment.

Tools to be Leveraged

The foundation of ACEP is its education model (see Figure 1). It is scientifically based and provides a guide for commanders

Figure 1 — ACEP Education Model

MENTAL SKILLS FOUNDATIONS — 5 MENTAL SKILLS — BUILDING CONFIDENCE — GOAL SETTING — ATTENTION CONTROL — ENERGY MANAGEMENT — INTEGRATING IMAGERY — MENTAL STRENGTH FOR LIFE

and performance specialists to train Soldiers on the different aspects contributing to one's mental strength. It begins with an overview of the foundations of mental skills and proceeds with five interconnected skills that together contribute to mental strength. These skills are: building confidence, goal setting, attention control, energy management, and integrating imagery.[2] Education is geared at identifying and developing optimal human performance.

The mental skills foundation provides an appreciation for how the mental and emotional domains affect performance. ACEP specialists draw on the similarities between the widely accepted practice of sports psychology and the psychological needs of their unit.[3] Building confidence "create(s) energy, optimism, and enthusiasm and help(s) manage internal obstacles that hinder performance excellence."[4] Soldiers with high self-efficacy are able to define success in a way that improves their overall performance; self-talk is one of the key tools that ACEP introduces to achieve this. Self-talk is that inner voice that is either building us up or tearing us down in stressful circumstances. It is a choice, and performers take advantage of it.

The importance of goal setting is understandable; however, few individuals take the time to completely develop their goals and dissect the nested tasks required to achieve them. Often, people struggle with remaining motivated to meet those goals as well. ACEP lays out specific methods for doing this; in addition, they aid in producing approaches to monitor progress.

Retaining attention is a struggle for everyone. ACEP teaches the skills necessary to identify the most important priority demanding our time and the tools required to focus our attention on it. One of these tools is cue words. Cue words are words or phrases that are repetitively trained to put us back in the moment — to refocus our attention. Attention control also plays a large role in one's mental agility, which is something that all Soldiers should be working to develop.[5] Every stress elicits some type of physiological response from our bodies. ACEP's principle of energy management provides a background on how to recognize and regulate this response to maximize energy when it is most needed. Controlled breathing is the most used technique to accomplish this.

The last and most widely underestimated skill is integrating imagery, also known as visualization. An ACEP specialist once told me that 10 visualized rehearsals equated to one full-

Figure 2 — ACEP Delivery Method

Education
Understand core concepts
• Build awareness of mind/body connection
• Use workbooks and exercises to personalize mental skills

Application
Real World Integration
• Automate and refine
• Field training/combat scenarios
• "Leader skills" - general
• "Unit integration" - team, squad, platoon, company
• Specific tasks/battle drills (run)

MENTAL STRENGTH FOR LIFE

Acquisition
Attain "working knowledge"
• Practice mental tools and skills
• Integrate mental skills with physical, technical and tactical (crawl and walk)

dress rehearsal. The Army has long recognized this principle. Visualization techniques have been incorporated at every level of training where resources are scarce; the Engagement Skills Trainer for marksmanship and the Virtual Combat Convoy Trainer are digital examples.[6]

ACEP's expertise is just as vast at the collective levels. ACEP specialists are knowledgeable on the theories of motivation and can apply them in relation to personality types and team dynamics. They can assist units with developing detailed goals and clearly defining member roles. They also provide counsel on how to best capitalize on Soldiers' strengths and mitigate their weaknesses for the betterment of the unit.[7] These are practical descriptions which become complex because of the distinctive nature of every team and unit.

The ACEP education model, paired with its delivery method, provides a training resource that is difficult to match. It has a three-step delivery: education, acquisition, and application (see Figure 2). This mimics the Army's crawl, walk, and run method. The most appreciated aspect of delivery is that it is uniquely tailored to the specific unit's needs they are working with. The education phase provides an understanding and appreciation for the mental skills. The acquisition phase incorporates hands-on activities that reinforce what was learned; examples of this include the use of bio-feedback technology to demonstrate energy management or imagery scripts specific to an event that is familiar to the unit. The last phase is the application phase; this is where Soldiers and units apply the concepts of mental skills training in an environment outside of ACEP.[8] This can be accomplished in many ways, but often it includes ACEP representatives present at a unit range or training event providing support and feedback.

My Experience

Early on as a platoon leader, this is exactly the process I arranged with ACEP specialists. Our brigade was in the reset phase of the ARFORGEN cycle, and my platoon was beginning to progress through individual tasks. Initially, my consultation focused on improving my platoon's marksmanship skills and Army Physical Fitness Test (APFT) scores. As our relationship with ACEP strengthened, a secondary goal of team building emerged. We agreed this focus was ideal for maximizing my Soldiers' potential during individual tasks, as well as setting us up for success as we
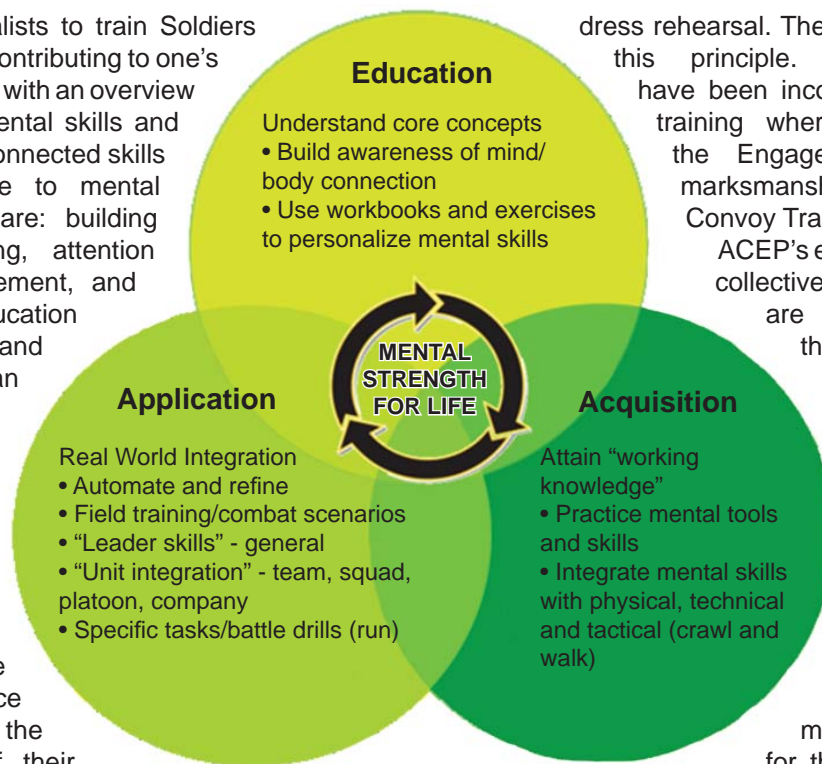
progressed to team- and squad-level collective tasks. A breakdown of the lesson plan we produced is included as Figure 3.

We began, as recommended, with a block of instruction on the fundamentals of mental skills training. ACEP specialists came to our building and tailored their instruction to our environment; this really made it easier for me to sell to higher considering our lack of white space on the calendar. I also felt it made many of the Soldiers more comfortable. The specialists did an excellent job relying on the commonly accepted value of mental skills training to sports. They then applied it to us as Soldiers. This really drew the attention of many of the Soldiers who were initially reluctant to receive the training. After this, they progressed to teaching the physiology of our performance and how we can best regulate it to our favor; the performance education model was their framework. ACEP focused on the tangible actions my Soldiers could take to improve their performance during the upcoming rifle qualification range and APFT.

During our second meeting, I wanted to focus on my junior NCOs. I knew if they bought into the methods they could continue to reinforce them with their teams and squads in subsequent training exercises. We ended up doing a round table, brainstorm-like session with ACEP specialists. By now, the Soldiers were becoming more familiar with the specialists and were very comfortable talking with them. After a quick recap and after action review (AAR) of the previous lesson, we began to proceed into team dynamics. We discussed team development and the importance of setting goals, defining roles, identifying individual strengths and weaknesses, and finding sources of motivation within the team. I facilitated the discussion with the support of ACEP. This was a step towards our next session, which was going to incorporate all of the Soldiers. The intent was to get the NCOs' buy-in and provide them the necessary time to prepare to have the same discussion with their Soldiers.

One of my NCOs actually worked with ACEP after this meeting and produced an imagery script for our upcoming rifle qualification. It was a recording of him providing systematic instructions on qualifying. ACEP even incorporated the sound effects of one of our other ranges.

Outline of Mental Skills Training
1/B/1-38 IN — POC: 2LT Dibble

Education

First meeting: Focused on the individual (early December/company dayroom or battalion conference room)

Intro to ACEP and mental conditioning (2 x 90 minutes/each section at a time)
1) Outline goal and intent
2) Describe the history of its success (athletes, units, Soldiers, etc.)
3) Introduce mental skills training to include understanding the physiology of performance, thought performance interaction, and the methods to capitalize on those reactions

Second meeting: Focused on the leaders (mid-January/company dayroom)

Leaders brainstorm the use of mental skills training (2.5 hours/squad leaders and up)
1) Recap on first class
2) Review how to incorporate mental skills training into the culture of the platoon
3) Cover team development and the importance of setting goals, defining roles, identifying strengths and weaknesses, and finding sources of motivation

Application

Third meeting: Focused on the squads (mid-February/company dayroom)

Theories of motivation (2.5 hours/one squad at a time/conducted over many days)
1) Theories of motivation in relation to personality types and team dynamics; Soldiers will participate in exercises that will help them isolate their personality type and motivational style
2) Discuss squad's successes and failures at goal setting, defining roles, capitalizing on strengths and weaknesses, and motivating
3) Discuss the dynamics of introducing new people

Future training: Reinforcing team building/individual mental skills (training events)
1) Apply specific mental skills to specific activities (i.e. marksmanship, PT, battle drills)
2) Review the personal performance plan

Figure 3 — Example Mental Skills Training Plan

The product was a visualization tool that all of my Soldiers were able to use to rehearse and prepare.

The third session is where we transitioned to the application phase of ACEP's delivery method. Now that the Soldiers were familiar with many of the mental skills and had practically applied them at the individual level, we proceeded to palpably tying the mental skills to each of the squads uniquely. It was another round table where the squads openly debated what did and did not work when it came to the topics previously discussed with the NCOs. The squad leaders facilitated the discussion with ACEP there for guidance. Squads focused on identifying roles and motivation techniques to enable success in future collective training exercises.

From this point, our interaction with ACEP was at the range and in the training areas. Impressively, they were not afraid to get in the dirt right alongside of us. ACEP was present to enhance the physical, tactical, and technical training already being conducted. They participated in the AARs and provided consultation to any individuals or teams looking for it. To my surprise, many of the Soldiers and NCOs took advantage of their presence. It was not rare to see a Soldier privately visualizing a lane or a team discussing individual roles and responsibilities. I invited

ACEP to every situational training exercise (STX) or live-fire exercise we had for the next couple of months. They were of tremendous value in these circumstances and proved to be very worthwhile to the platoon.

Concrete Results

The most striking aspect of using ACEP staff is their tangible results. The year I worked with CEP as a student on the Sandhurst team, my team finished first out of the approximately 40 U.S. teams that competed. As a platoon leader, I experienced similar results; I sought out ACEP specialists to provide a foundation for mental skills training and a framework for team development. Ultimately, I was seeking a successful completion of individual tasks and a preparation for team and squad collective tasks, and I found just that.

My two metrics for evaluating the influence of the training were APFT and rifle qualification scores. We had conducted both already prior to the mental skills training so I had a baseline understanding of where my platoon stood prior. On the day of both of the events, I remember walking around and talking to a number of my Soldiers. Surprisingly, many of them were discussing the techniques that they had learned from the ACEP specialists. I remember this because it was one of the few times I saw my Soldiers excited to take the APFT or qualify.

For the APFT, the platoon average jumped 22 points with no failures. This was significant considering the previous test was only six weeks prior and we had two failures. As for our rifle qualification, individual scores increased between 10 to 20 percent. We also had first-time "GOs" across the entire platoon. This was a feat that no other platoon in the company accomplished (nor did we in our first range).

We also had the opportunity soon after these events to evaluate, or be evaluated on, our teamwork during our battalion's platoon competition. A seven-mile course tested our physical fitness, military knowledge, and teamwork. Sixteen platoons participated in all. We attempted to incorporate everything we had learned in our mental skills training, and we won.

The ACEP is a well-vetted asset that commanders would be negligent to ignore. We can no longer operate under the impression that mental strength is a by-product of the traditional methods of physical, tactical, and technical training. ACEP's education model and delivery method are attractive and tailored to meet the needs of every unit, and their results are undeniable. As budgets draw down and our resources for training diminish, units can no longer afford for individuals or teams to be mentally or emotionally distracted. Make-ups and redos are vestiges of the past. Of course, we must also take advantage of any resource that could contribute to our Soldiers' consistent peak performance while deployed.

Resources

For more information about performance enhancement resources, contact your local CSF2 program office. The following websites may also be of assistance:

* www.lewis-mcchord.army.mil/csf2
* www.drum.army.mil/FamilyServices/Pages/csf2.aspx
* www.usma.edu/cep/sitepages/pep.aspx
* http://csf2.army.mil/training.html

Notes

[1] Gregory A. Burbelo, "Army Center for Enhanced Performance Executive Summary," http://acep.army.mil/pdf/Executive%20 Summary%20ACEP%20vfinal.pdf.

[2] Ibid, 3.

[3] Ibid, 3.

[4] "Peformance Enhancement," Comprehensive Soldier and Family Fitness.

[5] Ibid, 4.

[6] Scott R. Gourley, "Training for the Ambush," *Military Training Technology Online* (2005): 1-5. Retrieved 22 March 2014 from http:// www.metavr.com.

[7] Ibid, 4.

[8] Ibid, 5.

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OPERATIONAL ASSESSMENTS IN THE GARRISON ENVIRONMENT

LTC JONATHAN W. ROGINSKI

"Assessment is the determination of progress toward accomplishing a task, creating an effect, or achieving an objective."

— Joint Publication (JP) 3-0, *Operations*

Few words in the lexicon of any profession have undergone the explosion in usage that the word "assessments" has in the last five years in the English-speaking profession of arms. The word now commonly triggers either a cringe or a debate, but rarely is there consensus on a common definition or viable methodology.

Every command seems to re-interpret the doctrinal process of assessments. The widespread desire to do assessments "right" before consensus of what "right" looks like has spawned a cottage industry of scholars and consultants advising on and writing about the topic. Entry of assessments-related terms into your favorite search engine will result in hundreds of thousands to tens of millions of links, articles, and opinions. The opinions about the efficacy of combat assessments do vary across theaters, operations, and units, but the sheer volume of work in the area of assessment — and the consumers of that work — indicates its importance in the deployment environment.

Searching for concepts like "operational assessments in garrison," "home-station operational assessments," "home-station assessments" in Google is fruitless. The search yields nothing, although a search for "assessments in garrison" did result in some thousands of hits — all of which seemed to include towns named Garrison. These results echo the anecdotal comments from officers assigned to assessments teams at the division level and higher regarding assessments within garrison. We simply don't do formal operational assessments outside the combat environment.

In the combat environment, great time and organizational effort are invested in gaining consensus on and developing a viable assessment plan, collecting and analyzing data to support that plan, and communicating and defending the results of the assessment. Leaders "buy in" to the process because it provides information about how far the organization is from its goals and how fast the organization is moving toward those goals. This information is critical in weighing the risk associated with decisions that have life-and-death consequences.

Commanders at all ranks and levels of responsibility — from colonel (and even below) through several layers of general officer commanders to the strategic leaders of the United States and its coalition partners — rely on operational assessments to inform decisions on tactics, operations, strategy, and policy. To rely on assessments in combat and eschew them in garrison is to deny the commander an important, reliable tool.

This article builds upon the doctrine provided in JP 3-0 and asserts that the craft of assessment supports two critical facets of organizational leadership: knowledge of location and velocity. It is through an active assessments process the leader gains insight into where the organization "is" relative to its goals and the rate at which the organization is moving toward (or away from) those goals. Understanding velocity (defined by magnitude and direction) relative to objectives provides information that enables the establishment of priorities, the communication of those priorities, and the resource allocation needed to achieve objectives associated with those priorities. This understanding is necessary for leadership of any sized organization in any environment — combat or garrison.

This case study of how the 10th Mountain Division used a process of assessments to adopt a data-driven decision-making culture has application to brigade and larger units in the military and a wide variety of civilian organizations. This manner of decision making was inculcated into the organization's culture during its 2010-2011 deployment to Kandahar, Afghanistan, as the headquarters in charge of coalition operations in southern Afghanistan.[1] As an indicator of the perceived value of this cultural shift, the assessment approach ensured the unit's transition from a combat environment to its home station despite significant transition of leadership.

The Obstacles to Effective Garrison Operational Assessments

Across the Army, the most deployed division headquarters since 2001 have racked up deployments totaling nearly five years. Five years of deployment means the division headquarters has been in garrison for about seven years (about 60 percent of the last 12 years). Operational assessments are an information stream commanders rely on in the crucible of combat and contingency operations. So, why are assessments abandoned when the unit returns to its home station?

To gain some potential insight into the answer to this question, consider the differences between the deployed and garrison information environments (see Figure 1).

In a combat or contingency environment, all forces are led by one commanding officer, resulting in a clear chain of command and little question of whose vision to follow.

Factor	Deployment Environment	Garrison Environment
Unity of command	One commander-one mission	Several commands/missions
Unity of effort	Common purpose unites staff	Multiple staffs lack synchronicity
Cohesion	Team is formed to deploy	Team is disbanded after deployment
	Emphasis on team building 24/7	Personal life vs professional life
Amount of effort	100+ hour work week	40-50 hour work week
Sense of urgency	Decisions make/take lives	Bullets are not flying

Figure 1— Some Differences Between the Deployment and Garrison Information Environments

Unity of command in the deployed environment results in unity of operational and staff efforts — including the area of operational assessments. Not only is the team formed with the sole purpose of accomplishing a mission, but the crucible of the mission pulls the organization closer together as an instrument to realize the commander's vision. The sheer amount of will and effort expended to accomplish the deployed mission is staggering, with 100-hour work weeks the norm for many. Most importantly, the fact that decisions in the deployed environment make and take lives causes those hours to be worked at peak performance.

As Figure 1 asserts, the garrison environment is characterized differently than the deployed environment. The result is practices that work while deployed suffer at home station. By applying certain principles, an organization can benefit from lessons learned while deployed to leverage a process that works in combat — operations assessment — in support of decisions made at home station.

Principles of Effective Assessments: Focus, Teamwork, Leadership, Diversity

Certain principles guide productive staff work in any discipline, any environment, and any organization. Though some are not typically associated with analytical work, assessment teams that have applied these principles have found success in making their analysis and assessment products relevant and appreciated by commanders and staff officers alike.

Focus on the result — support to command decision making.

"For conventional conflicts, well-developed theories of war give a good understanding of the objectives to pursue and how to pursue them… In unconventional conflicts, the theories of war are more complex, objectives and ways to achieve them are less straightforward, and notions of 'winning' and 'losing' are more difficult to define."[2]

The above statement highlights the challenge of focus in garrison assessments. In a conventional, symmetric, force-on-force fight, success may be measured by the progress of the forward line of troops (FLOT) or the combat power of the enemy destroyed in an attack — both pieces of information that are readily attainable with today's technology. As conflict becomes less conventional or less symmetric, the theory of

what it takes to "win" and the way we measure progress becomes less clear. Assessing progress in home station is more complex yet — there are not even any belligerents! How do we tell if we are "winning?"

The idea of "winning" can be abstracted from combat to apply in a useful sense to the garrison environment. We win in combat if we accomplish our objectives in accordance with a given timeline. We can define a "win" in garrison the same way. Though the objectives will differ from combat, in garrison a commander still desires to achieve certain objectives before some pre-determined condition manifests. The decisions surrounding achievement of established objectives provide the assessments team with the focus it needs to provide timely command support. Specifically, it is through answering the following questions that the assessments team determines what data and information to collect, the appropriate style of analysis, and how to display the results so those results are clear to and impactful on the audience:

• Which decisions need to be made?
• When is the earliest time each decision can be made?
• When is the latest time each decision can be made?
• What is the risk of not making the decision on time?
• What is the expected effect of the decision?

The Mountain Readiness Conference (A Vignette About Focus)

The 10th Mountain Division and Fort Drum used a monthly event known as the Mountain Readiness Conference (MRC), run by the division's operations officer and facilitated by the assessments team, to gauge if it was going in the right (the commanding general's) direction. The MRC is a venue for senior command-level discussion including all lieutenant colonel and above commanders in the unit and on the installation (commanders from the 4th Brigade Combat Team attend virtually from Fort Polk, La., for topics that are not specific to Fort Drum).

Due to the size of the organization and the amount of data available, it was not possible to discuss all the possible analysis considered interesting by all parties. Command priorities and objectives, coupled with the five decision support questions previously stated, provided a focus for the analysis to be presented at the MRC. Only the highest priority topics impacting decisions that needed to be made "soon" and affected a large part of the organization were discussed in the conference. Items identified as having secondary importance were analyzed, and insights generated were promulgated to each unit and staff section.

Assessment is a team sport.

The late Ray Kroc (former CEO of McDonald's) made

an observation about organizational effectiveness at McDonald's — all of us is better than any of us — that applies to the assessment team. Staff cohesion makes or breaks the assessment process. In any environment, operational assessments are driven by data collected by people. The set of data is analyzed by professionals and synthesized into information. Refined information is discussed with subject matter experts, gleaning the "why" behind the "what" and turning information into knowledge that is shared with decision makers.

Fort Drum's Suicide Prevention Task Force (A Vignette About Teamwork)

The three commanding generals that led the 10th Mountain Division and Fort Drum from 2009-2013 consistently focused on Soldier wellness as a primary area of command attention. Unfortunately, there is/has been no set of quantitative measures identified to date that successfully predict when a Soldier will commit some act of indiscipline (such as driving while drunk) or self-harm (such as a suicide event). However, the assessment team at Fort Drum developed qualitative findings that could help small unit leaders keep their Soldiers safe from both acts of indiscipline and self-harm by leveraging the fact that "human relationships save human lives."

Fort Drum's Suicide Prevention Task Force (SPTF) had collected story boards over a six-month period in 2012 that included the details of every suicide ideation, attempt, completed suicide, or other self-harm incident. As the SPTF was challenged to make sense of the data, the assessments team assisted. Three of the 14 factors identified in the suicide prevention "Gold Book" manifested more often and were more causal than the other 11 factors. In a manner of speaking, these factors "bubbled to the top" of importance in this issue. The three factors (relationship problems, military work stress, and substance abuse) manifested at a rate about two-thirds higher than the next "layer" of risk factors. These three factors give leaders insight into how to diagnose their most at-risk Soldiers.

No one agency could have collected the data, analyzed it, and reported it. It took the entire SPTF, as a team, to produce the insights that enabled leaders an important facet of taking care of the most at-risk Soldiers. Subsequently, it was the leadership teams that must pick up the information and use it, or the information is useless.

Leadership is paramount.

For any team to maintain its focus and be successful, it must have strong leadership. The leader of a command's assessment team must be a team builder who has the savvy to maintain the relationships that keep a diverse team together

> *Quantitative analysis is but one part (and not the most important part) of the assessments process. An observation that pains an analyst to make is that while "number crunching" is interesting to the folks doing it, it's rarely interesting to anyone else. What is interesting to many is the discussion surrounding analytical outputs. It is what comes out of this discussion that is valuable to the commander (or any decision maker) — not necessarily what goes in to it.*

after it's formed. This leader also needs to be an individual viewed as a "closer" within the organization, a person who can manage a complex task through its completion.

Who is this leader? The individual that should be in charge of the command's assessments initiative has been a source of contention for some time. As discussed by Dr. Stephen Downes-Martin (Naval War College) and Dr. Jonathan Schroden (Center for Navy Analysis), this responsibility typically falls on the person with technical expertise in the area of analysis — those school-trained in operations research and systems analysis (the dreaded ORSA). If the command does not have an ORSA, it finds the person on the staff regarded as a "quant" or an analytical thinker. It needn't be so.

Quantitative analysis is but one part (and not the most important part) of the assessments process. An observation that pains an analyst to make is that while "number crunching" is interesting to the folks doing it, it's rarely interesting to anyone else. What is interesting to many is the discussion surrounding analytical outputs. It is what comes out of this discussion that is valuable to the commander (or any decision maker) — not necessarily what goes in to it.

While the assessments leader does not have to be a numbers person, the ability to conduct high-quality quantitative analysis is required for a productive assessment process. Few mistakes damage the reputation of work that includes analysis more than bad science. Downes-Martin observed "the proliferation of 'junk arithmetic' and flawed logic [damages] commanders' credibility and decision support..."[3] Consider that "high-quality" quantitative analysis is not the same as "complicated" analysis. Einstein is attributed with the thought that "everything should be made as simple as possible, but no simpler." It is so with decision support. Find an analyst who understands the problems at hand, knows what the boss needs, and doesn't add superfluous complexity.

The ability to conduct appropriate, scientifically correct analysis isn't the only specific talent the assessment leader must recruit. The second is communication. Insightful analysis is only useful if it's heard and understood by decision makers. There must be at least one person on the assessment team who can transform a wide variety of inputs into a useful message to the intended audience. This communicator must be able to capture the essence of discussions throughout the assessment process, combine this essence with outputs of the process, and relate potentially complex ideas in plain language to a diverse audience, both orally and in writing. Without such a communicator, the message of progress is

potentially misunderstood, lost, or does not reach the entirety of the intended audience.

It takes an effective leader to be able to bring together the right personnel with the right experience and knowledge to have a productive dialogue. As mentioned, the team must have an analyst and communicator. The remaining members of the team must be selected to form a representation of the organization as a whole. Often, the right people have no direct linkage within the organization; they have to be "asked rather than tasked" to participate. Recruiting people to the assessments process and motivating them to stay is an exercise in (usually) peer leadership, generally thought to be the most difficult form of leadership.

Diversity enables knowledge generation.

The importance of diversity in thinking has already been suggested in this article. It is quite simply, the "wisdom of crowds," to borrow a phrase made popular by James Surowiecki's book of the same title.[4] In the book, Surowiecki highlights characteristics of "wise" crowds and "failure" crowds, summarized in Figure 2. Consider these factors in choosing who to recruit into the assessments process.

In the military environment, it may be easier to identify experts that fit the characteristics of the "wise" crowd than in other organizations, as military staffs are compartmented by skill set and experience. However, the importance of a dynamic leader shines through as someone who needs to bring a group of diverse group of independently thinking people together. The more difficult task is then to manage the time and discussion in an unconstrained, decentralized manner so opinions are aggregated and productive outputs are generated for decision makers.

The benefits of a diverse assessments team reach well beyond the primary effect, which is to generate the most useful, timely, refined knowledge to support decision making. The assessments process also serves as a staff-integrating and synchronizing function. The wider net cast to comprise the assessments group, the wider the direct message of analytical and assessment findings and results are spread. The staff receives information going to the commander firsthand rather than through layers of filters that pervert the actual message. As actual results are promulgated, the primary staff officers and subordinate commanders see where the data they send goes and how it is used. The utility of the process becomes evident, the amount and fidelity of data and information received increases, and the process becomes more useful — a virtuous cycle.

The four principles of effective assessment (focus, teamwork, leadership, and diversity) may take different practical forms in garrison compared with the combat environment, but they are the foundation of a useful, productive assessment process. Strong leadership is paramount in not only assembling the assessments team, but getting the most out of this diverse talent pool. Having to ask for help and not being able to task for support can be more of a challenge but results in unity borne of choice rather than compliance resulting from orders.

When strong leadership builds a diverse, cross-functional team, the resultant outputs are greater than what would be possible from each of the individuals. Ideas bounce off each other, merge, grow, and mature, providing synthesized knowledge and insight that is "graduate-level" support to command decision making. When this intellectual capacity is focused on those decisions the commander deems critical to move his organization forward toward its goals (on time), the entire organization benefits.

Conclusion

Assessments are deemed critical in the combat environment, yet seem to be largely forgotten about in the garrison environment. There are many forces at work causing this to be so — from the emotional letdown upon returning from a life-and-death environment, to units being ripped apart and re-assembled, to the presence of multiple commanders and conflicting priorities. Even so, the fact remains that even the most-deployed units have spent more than 60 percent of the last 12 years in garrison. A process so relied upon in combat cannot be disregarded in the very environment we spend the most time. Use the 10th Mountain Division's assessment principles (strong leadership, assessment team diversity, and focus on command priorities) and realize the benefits of analytical support to decision making — even at home.

Notes

[1] William P. Upshur, Jonathan W. Roginski, and David J. Kilcullen, "Recognizing Systems in Afghanistan — Lessons Learned and New Approaches to Operational Assessments," *Prism*, Vol. 3, No.3 (06/2012): 87.

[2] Jonathan Schroden, "Why Operations Assessments Fail — It's Not Just the Metrics," *Naval War College Review*, Vol. 64, No. 4 (Autumn 2011): 89.

[3] Stephen Downes-Martin, "Operations Assessment in Afghanistan is Broken — What is to be Done?" *Naval War College Review*, Vol. 64, No. 4 (Autumn 2011): 103

[4] James Surowiecki, *The Wisdom of Crowds* (NY: Random House, 2004).

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Figure 2 — Characteristics of "Wise" and "Failure" Crowds

"Wise" Crowd	"Failure" Crowd
Diversity of Opinion	Homogeneity
Independence	Centralization
Decentralization	Division
Aggregation	Imitation
	Emotionality

DEVELOPING INSIGHT:

PERSONAL ANECDOTES FROM OEF XIII

CPT ANDREW J. BAER

Insight — or the ability to see the situation as it really is — is the most valuable asset an advisor can have. Intellect alone does not guarantee insight. Soldierly virtues… are often not accompanied by insight. Insight comes from a willing openness… Self-doubt is essential equipment for a responsible officer in this environment; the man who believes he has the situation entirely figured out is a danger to himself and to his mission.

— MG John H. Cushman[1]

From February to August 2013, I had the privilege to serve as a member of a Security Force Advise and Assist Team (SFAAT), which deployed to Paktika Province, Afghanistan, with the 2nd Brigade Combat Team, 10th Mountain Division (2/10 MTN). My SFAAT's mission was to advise and assist the Afghan Border Police (ABP) amidst the larger drawdown of international presence from Afghanistan.

As a member of a SFAAT, I noticed many lessons learned have been published concerning advising methods, often without results.[2] I believe this is partly because little has been written on what understanding the operational environment — insight — looks like at the most personal level. To help bridge that gap, I first offer a summary of my advisory team's tour for context. Then, I share three of my experiences from Afghanistan and how I came to interpret them. My responses were specific to those situations, but I believe the questions that needed to be asked are universal.

Background

My SFAAT, Grey 1, was a team of 11 experienced NCOs and officers from different branches of the Army with a focus on training ABP units at the battalion level and higher. Prior to deployment, our training included attending the SFAAT Academy at Fort Polk, La., and completing a National Training Center rotation (Fort Irwin, Calif.). Upon our deployment, we conducted operations as part of a Security Force Advisory Brigade (SFAB) and served as advisors to three ABP kandaks (battalions) during Operation Enduring Freedom XIII-XIV.

Grey 1 and its SFAB (2/10 MTN) were the last major coalition forces in the province; thus, retrograde operations were a high priority in addition to advising and assisting. Grey 1 fell under Task Force 2-14 Infantry, which served as an area of support coordinator (AOSC). The AOSC meant that Task Force 2-14 focused on providing assets and assisting Afghan National Security Forces (ANSF) rather than its own unilateral operations (as the battalions had done under the battlespace owner concept the previous year).

Grey 1 was attached to D Company, 2-14 IN, a heavy weapons Infantry company, with one platoon serving as our primary security force. Grey 1 shared its area of operations (AO) with two other light Infantry companies and two Afghan National Army (ANA) SFAATs, one of which operated out of the same forward operating base (FOB).

Grey 1 was the only SFAAT initially assigned to advise ABP in Paktika, and the location and distance of the three kandaks necessitated that Grey 1 conduct level 2 advising. This meant our team functioned as more of an information hub and conduit for the ABP, whereas an SFAAT operating at level 1 was more involved in the kandaks' day-to-day affairs. On average, we conducted two to four advising operations per month from late February to May. The pace slowed in late summer as Ramadan arrived and retrograde operations increased. These operations primarily consisted of air movements to the kandak headquarters. When we could not fly out to meet with the Afghan commanders in person, we had meetings with their liaisons on FOB Orgun-E every day except for Fridays. As the fighting season began, we increasingly worked as liaisons between the ABP and Task Force 2-14 to facilitate air support to ABP checkpoints under attack.

First Experience: I Don't Know What I Don't Know

In considering cultural awareness, SF (Special Forces) Soldiers must observe the first SOF (Special Operations Forces) imperative: Understand the operational environment.

— Training Circular (TC) 31-73,
Special Forces Advisor Guide

In late summer 2013, roughly two-thirds of the way through the fighting season, the advising teams across Afghanistan received an extremely important task: formally assess their Afghan counterparts' job effectiveness using the Commander's Unit Assessment Tool (CUAT). This written assessment included both qualitative judgments, such as rating Afghan officers' leadership abilities, and more concrete data, such as the number of working vehicles compared to broken ones. The intent was that top-level commanders, Congress, and, ultimately, the President himself could decide how effective their strategy of creating an independent Afghan military and police force has been and then adjust accordingly.

When I first began work on that report, I thought I had a sufficient grasp of my uncertainties and the blind spots in my perspective and that I would be able to compensate for them. However, while working this report, I came to three major realizations that made me less than sure of that assumption.

The first realization was that we could not automatically trust the records we inherited. Changing and often vague guidance as to what constituted a rating in a CUAT distorted the records of our ABP kandaks' prior performance. For example, we rated how competent an Afghan unit was at patrols, but little criteria were given to define what made patrols successful. Turnover in Afghan personnel made clarity even harder to obtain.[3]

These inherited inaccuracies would then feed upon themselves. Especially at the beginning of the deployment, we relied on past CUATs to help show us what these Afghan units were like and how we should prioritize our efforts. With our first impressions already established from previous reports, we had a tendency to either confirm our biases or simply ignore issues in a unit because we incorrectly assumed it had been addressed. We then generated our own reports and assessments, continuing the cycle. This distortion of our records fed into my second realization.

My second realization was that extended observation time was even more critical to our accurate reporting than anticipated. One ABP unit that was far to the south and almost completely isolated from the Afghan command and support network dramatically showcased this. Previous teams had rated it highly, so early on we focused much of our effort on units that we believed would benefit more from our direct involvement. We kept in touch with this isolated unit through a single liaison, making occasional phone calls to help them with logistics issues and visiting a few times where we stayed less than a week. In reports to our superiors, we informed them that the southern unit was performing well; it just needed more supplies.

However, just before it was time to write our first CUAT as a team, we learned that the Afghan regional command fired most of the southern unit's leadership because of corruption charges. Besides gross negligence of duty in terms of maintaining their force, those officers were accused of embezzling hundreds of thousands of dollars in motor fuel from the local town. The Afghan commanding general of the region personally flew down to the unit with us, and we discovered a group that was dispirited and utterly untrained

Photos by SSG Jennifer Bunn

Members of SFAAT Grey 1 and their notional Afghan Border Patrol counterparts question a role-player at an improvised traffic control point during training at the National Training Center, Fort Irwin, Calif., on 6 October 2012.

— a far cry from the professional, aggressive force presented by official records and the scripted facade we were shown during our brief visits.

Unfortunately, there was little to be done to improve the situation as our focus had shifted to the base handover, and we had little time and resources left to dedicate to the ABP unit in question. The short fly-ins and cellphone reporting had their place, but they could never fully substitute for extended time living with a rated unit. Our vision, our insight, and thus the vision and insight of decision makers throughout the region, had been clouded from the beginning by a combination of changes in reporting standards/criteria which we were not fully aware of as well as a shift in U.S. focus.

My third realization was how directly national-level politics affected our insight and our work. At the beginning of our deployment, President Obama publically announced in his February 2013 State of the Union address what many had speculated for months on — our withdrawal of troops from Afghanistan and the formal ending of our war there. This very public announcement had both obvious and subtle effects on our counterparts, and it inevitably affected their performance and level of engagement.

As an example, one of the commanders we advised seemed doubly motivated to train his men since he knew he would shortly lose U.S. combat support. This was wonderful, but that same commander also pointed out that more of his supplies were being stolen by the officers in charge of delivering them from Kabul. According to the commander, these other officers feared losing their jobs when the U.S. departed, so they were accumulating all they could. The prevalent uncertainty and mistrust at the national level led some ANSF unit commanders to either engage in additional graft or simply abandon villages to insurgents to conserve their resources for what they perceived as an inevitable drought in support and resurgence of enemy activity. In the case of this particular commander, his unit suffered losses in capability even though it had improved its own training and readiness.

Trying to figure out who was justifiably nervous and simply needed additional encouragement and who was genuinely corrupt became far more challenging. Units which had once been very active completely shut down their operations. It was difficult to gauge whether they were ineffective because of leadership, quality of soldiers, lack of supplies, enemy actions, or they were they simply biding their time because they believed, correctly, that the Americans in Afghanistan had less leverage.

In the end, we completed two CUATs for each of the units for which we were responsible, but for all but one we added heavy caveats to ensure that our superiors knew we did not have a confident picture of our units in many areas. The lack of clarity in the evaluations created difficulty in determining how effective our efforts actually were, which made it hard to devise future strategy.

Reflection

I believe that these experiences were examples of the imperatives to understand the operational environment and to continuously analyze assumptions. The difficulty lay in the operational environment's complexity and our relative inexperience in determining how on-the-ground effects correlated with seemingly far-off causes. The best remedy is that every member of the team, the larger unit, and the organization as a whole must keep an eye out for irregularities and be prepared to question what seems to be perfectly straightforward. Small unit leaders can make these efforts more effective by assigning personnel to study historical examples with similar conditions. They can also ensure there is someone assigned as a resident expert on areas they believe could have large impacts on their mission. As an example, several case studies of the Vietnam War would have revealed advisors struggling with the same reporting and evaluation criteria that we did, but an unofficial expert to assist the intelligence officer on fully understanding the political dimensions might have made it easier to determine how our Afghan partners would view international events.

Second Experience: What Do They Mean to Me?

Principle of Advising 2 — Empathy Leads to Understanding: *Truly understanding other human beings and their motivations allows for the development of honest relationships, which is a critical factor of success.*

Principle of Advising 3 — Success Is Built Upon Personal Relationships: *No amount of resources or firepower can compensate for a lack of relationship between advisor and FSF (foreign security forces) counterpart. It must be honest, genuine, and heartfelt.*

— FM 3-07.10, *Advising, Multi-service TTPs for Advising Foreign Security Forces*

It was a beautiful spring afternoon at FOB Orgun-E when I was startled from rest by an interpreter frantically pounding at the door: there had been an ambush and Afghan police were injured. "Where are they?" I asked. "They're here, sir. They brought them to the gate and they need help." I remember feeling the cold of adrenaline creeping along my spine because I also knew, at that moment, that there was a good chance I'd shortly be telling someone in a calm and caring way that we would not help. The reason for this: our strategy in Afghanistan was to push units towards independence after our withdrawal from the area.

At the time, I was serving as a liaison for my team while it was out on mission. I, alone, was the link between the team, our parent unit who manned the FOB and provided our security, and our Afghan partners who would drop by unannounced from a nearby police base. Unknown to me, an Afghan patrol from that nearby base had been ambushed, and four men suffered severe shrapnel wounds. They drove the wounded straight to us through some very difficult roads because they knew we could provide better treatment than the local hospital. They called my interpreter and were waiting anxiously at the gate. My interpreter was an easygoing man with more patrol time than many Soldiers, and when he came to get me, he was genuinely panicked.

> *Specifically defining my relationship and responsibilities left me with practical advantages that I wouldn't have otherwise had. First, it focused my efforts and let me make decisions faster. Second, I could always go to my counterparts and say with honesty that I'd done everything I could to help them. My counterparts felt this honesty and desire to help them day to day, and it made them more willing to listen and offer their own opinions candidly.*

We both sprinted back to the gate so I could get the truck through the security. By this time, I had already notified our command center and received the sympathetic but stern warning that we might not be able to evacuate them.

I found the truck easily and with it, my fellow liaison with the ABP, Makhbul. He was visibly agitated and immediately said the men had been hurt and that they'd die without our help. At this time, our medical rules of engagement (ROE) were running through my head. We kept a little flowchart sitting in our radio room which was a replica of what our aid station had, neatly delineating who to help and when. As I worked out the shivering nausea of my adrenaline and the wounded groaned in the back of a pickup truck, I thought of three things: I needed to work through this as quickly as possible; it was probably not going to end well; and I needed to keep Makhbul and the men he would inevitably talk to later from seeing any of this as the Americans acting against them.

At this point, I did not at all feel compassion, concern, or grief. I was too much into problem-solving mode. My own feelings would come later. However, both Makhbul and the interpreter were full of grief, concern, and what looked like the beginnings of anger. Based on our collective training and my own reading, I knew they were a very emotive people so I made a point of putting my hands on Makhbul's shoulders, looking him in the eye, and telling him that I would do everything I could. I hoped to establish quickly that I was on their side. It was key that I actually meant what I said.

Together, we led the truck up to the aid station where the lead surgeon could look them over. He was very sympathetic and clearly wanted to help, but in the end procedure dictated he make his own assessment. It ended up being classified as life threatening but not immediately so under the guidelines. After a phone call, the brigade commander decided that we would not treat them. I personally talked with my chain of command and laid out the case for why treatment should be given, pointing out the likely results and how this could be a crucial gesture in building our relationship so early in the deployment. In the end, though, the decision remained to not evacuate the Afghans to a more advanced care facility. Instead, the surgeon provided some initial treatment and then offered to be on call to the local hospital in case the surgeon there needed further assistance.

I immediately went back outside to let Makhbul know and proceeded to help get the truck back out as fast as possible. Later, I made a point at showing visible anger and tried to direct the ire towards the Taliban for causing the injuries in the first place and the nebulous "orders" which constrained us. I spoke about how one of the wounded could well have been my younger brother living back in the United States. In retrospect, this could have backfired on either me or a later unit. However, my reading of his feelings ended up being correct. Also, because the Afghans' use of many Soviet techniques of command, the concept of an absolute order was one he was very familiar with.

Makhbul and the interpreter were both disappointed that day, but the initial treatment provided by the U.S. forces on the base helped maintain positive opinions of the advisors and our fellow units. In later incidents, we (U.S. and the other coalition forces) would do our utmost to help any Afghans who were hurt, and at many times we exceeded the wounded's own comrades in our urgency, something which was not lost on our Afghan partners.

Reflection

This incident helped me figure out how I would personally define my relationship with my counterparts. I came to think of myself as a legal advocate arguing for my Afghan counterparts within the U.S. system. I argued for the requests and always sought their benefit while making clear that I wouldn't lie for them. I knew my chain of command and our larger strategy and was able to trust that a fair call would be made if one of my requests for assistance was denied.

Specifically defining my relationship and responsibilities left me with practical advantages that I wouldn't have otherwise had. First, it focused my efforts and let me make decisions faster. Second, I could always go to my counterparts and say with honesty that I'd done everything I could to help them. My counterparts felt this honesty and desire to help them day to day, and it made them more willing to listen and offer their own opinions candidly. Third, I did not get overly upset and burned out when they lied or tried to game our medical evacuation (MEDEVAC) or air support systems. Clients try to game the courts. I just had to show them how bad this would be for them in the long run.

Third Experience: It's All Political

Often organizational relationships can be misleading and must be clarified. The actual interrelationships among and within organizations seldom follow a line-and-block diagram. Instead, they are heavily influenced by circumstances, personalities, perceptions, and resources.

— FM 3-07.1, *Security Force Assistance*

Joint coordination centers were a consistent challenge for Grey 1 and its fellow SFAATs. Dubbed operational coordination centers (OCCs), they were divided into provincial (OCC-P) and district (OCC-D) levels. The intent of these centers was to encourage mutual cooperation and information

sharing between widely dispersed Afghan units from different branches of the ANSF. These centers were set up much like a command post with communication systems, maps, and representatives from each service which operated within that coordination center's district or province. This cross-service coordination was absolutely necessary to conduct a successful counterinsurgency, but personal and organizational politics severely hindered the performance of the OCCs.

My first exposure to these challenges occurred in May as the fighting season increased in intensity. The local OCC-D experienced a great deal of difficulty in providing

A member of SFAAT Grey 1 confers with his Afghan partnered role player with the help of an interpreter during a traffic control point training exercise at the National Training Center on 5 October 2012.

coordination between the Afghan National Army (ANA) kandak and an ABP unit located in the same district. Ideally, they would report to their ABP radio operators in the OCC-D. Because both the ABP and the ANA worked side-by-side in the OCC-D, the ABP radio operator could then directly coordinate with the ANA to receive assistance. In practice, this did not happen. There were two notable, systemic causes of failure that stemmed from politics.

First, the success of these centers was highly dependent on the individual commanders of the units involved. These commanders were often reluctant to make specific and firm agreements on who was responsible for what duties. Many times, it was a matter of power sharing and prestige. In our case, the ANA had the greater prestige and resources and so were reluctant to give any control of their assets over to the ABP. The ABP, meanwhile, could be overly resentful of their smaller status and would quickly give up on attempting coordination. The OCCs' lack of any command authority furthered the inter-service conflict as it encouraged individual commanders already incentivized to seek personal gain to use the OCC-D as another avenue to gain power.

Rivalry between commanders was furthered by the regional emphasis on family and tribe first and by the many divisions in national politics and ideology. Afghan military leaders and their subordinates often considered it natural to use their positions to place their related family and tribe in an advantageous position. Further, Afghanistan's military leadership is intimately connected to its political and ideological groups, unlike the U.S. or many European armies where there is at least an ideal of apolitical armed services.

This could be workable except for the extreme diversity

of possible interests that commanders can represent or have grudges against. As of February 2014, there were 48 registered political parties. Even grouped together, they represent over eight distinct political actors, and individual commanders often work to further their own group's agendas.[4] Taken together, these additional loyalties and feuds made cooperation between commanders and the services they led extremely difficult. In the case of this OCC-D, the ABP commander was a former expatriate with extensive Russian training and education. His ideas of an ideal Afghan military were relatively western, progressive, and idealistic. This could make it difficult for him to connect with the more traditional ANA commander who represented a small but significant group of individuals who had been employed by the pre-Taliban central government.

The second issue of politics at the OCC-D came from within our own ranks. Specifically, Grey 1 and the SFAAT assigned to the ANA suffered a period of chilled relations right at the time when the OCC-D was a focus. The reason for this was an issue familiar to many advisors in past conflicts: both teams and their supporting units viewed the performance of Afghan units as reflections of the partnered SFAAT's performance. As previously mentioned, both the ABP and the ANA hindered one another at various times. As both SFAATs became frustrated with "their Afghans" lack of progress, it became tempting to blame other advising teams. Cross-coordination in discovering a solution to the OCC-D was slowed until individual outreaches eventually healed the rift.

My second exposure to the difficulties of such politics came near the end of our deployment, in September. I had moved

to a new SFAAT dedicated to advising an OCC-P whose main focus was on getting the Afghans to successfully coordinate with helicopters without U.S. assistance. However, progress was extremely slow.

To begin, the commander of OCC-P and his staff were unwilling to put forth the necessary effort that was required to coordinate air-ground operations. This came about partly because the different services treated the OCC-P as unimportant compared to working in the regular kandaks. As a result, the officers at the OCC-P felt disenfranchised. The commander wandered around in his civilian clothes and casually talked with radio operators or advisors as they tried to deal with reports of enemy attacks. There were several instances when improvised explosive devices (IEDs) had detonated and Afghan officers were more interested in discussing home life than trying to figure out what happened. Eventually, I learned that several of these officers had once been enthusiastic in their duties. However, they were passed over in promotions, which was a frequent occurrence for those serving in the OCC-P.

Next, coordination between the Afghans and the advisors became temporarily disrupted as a new unit from the U.S. came in to replace us. Unlike our original team, which was very focused on advising, the new team was particularly uninterested in the OCC-P and more focused on security operations. This was partly a manning issue. Because of the draw down, the team was smaller. However, it was also because they had no high-ranking advisors. Their commander's primary responsibility was as a combat officer. His performance evaluations and objectives were, thus, much less tied to how the Afghans performed. In contrast, our commander was himself an advisor. Even with Grey 1 in Orgun-E, there were high-ranking members in TF 2-14's command that had been advisors at one point and could act as advocates for advisors. This lack of command interest trickled down to the lower levels as some individuals from the new team showed no interest in collecting the many lessons learned before the switch was completed.

Reflection

Military operations never occur in a vacuum. Because they are so grounded in relationships, advising operations are particularly subject to political pressures created by organizational issues, personality conflicts, or national decisions.

Advisors must always consider the positions from which their counterparts operate. For example, I initially held a very unfavorable opinion of the OCC-P's commander, and I avoided interaction with him as much as could be considered polite so that I could focus on those I perceived as accomplishing something — the radio operators. My incorrect view of the OCC-P commander was because I did not understand how many incentives the commander had not to put forth effort. Once I recognized his personal grievances (missing promotions, feeling powerless), I was able to modify my approach with him. I gave special attention towards affirming his experience and capability and was rewarded by the enthusiasm he later showed in personally supervising the helicopter operations we were so keen on them learning.

I also learned valuable lessons in how quickly internal conflicts within or between U.S. teams can affect the treatment the advised forces receive. Operations in Grey 1 suffered because of our conflict with another SFAAT. Neither team benefited from opposing the other, but it happened anyway because we each had an emotional stake in the performance of our individual Afghan counterparts, and we each perceived that our own Afghans were suffering from the negligence of those on the other team. This conflict was resolved, but for a time information sharing and coordination was severely hampered. When a team is deployed for nine to 15 months, it is very important to maintain that relationship. After all, how could we have expected the Afghans we advised to work together when we could not even work together ourselves?

Finally, I learned that many political conflicts are driven by organizational design and culture decisions. The OCCs lacked any officer with command authority and so were reduced to suggesting courses of action to the units they coordinated with. This led to feelings of helplessness and disenfranchisement among their personnel and later to problems in advising them.

Notes

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Photo by Markus Rauchenberger

Closing a Critical Gap:

Enhancing Small Arms Combat Skills Training

LTC (RETIRED) JAMES C. CROWLEY
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Soldiers' small arms engagement skills have been critical to the tactical success of the U.S. Army since its founding. A strong argument can be made that these skills are of heightened importance today. Because the U.S. Army has dominating conventional combat capabilities, it is highly likely that in future conflicts a competent enemy will use hit-and-run guerrilla-type tactics such as ambushes and hiding among noncombatants. Combat arms Soldiers require rapid and precise fire to prevail in such encounters. Moreover, because rear areas and support units will be likely targets in future conflicts, small arms proficiency will be just as important for support as for combat arms Soldiers.

In this article we outline what we see as a serious gap in current small arms training strategies. The issue is that current small arms qualification standards do not include many critical engagement skills necessary for combat success. This is a serious problem because the only way to have a reasonable assurance that Soldiers possess these needed skills is to include them as qualification standards. We also outline directions for closing this gap.[1]

Current Small Arms Qualification Standards and Gaps

Current small arms training standards include individual/crew and squad and higher collective live-fire exercises (LFX). Summaries of these standards and key combat critical skills not included are outlined below.[2]

Individual Rifle Standards. Qualification consists of both live-fire (record fire) and Engagement Skills Trainer (EST — the Army's primary small arms training simulator) tables.[3] Record fire consists of engagement of frontal, stationary targets arrayed in a 16-meter wide lane at ranges from 50 to 300 meters.[4] Of the 40 targets, 30 are single-target engagements with three-second (for the 50-meter target) to eight-second exposures (for the 300-meter target). Two targets appear simultaneously in 10 of the engagements, with six-second (for the targets at 50 and 100 meters) to 12-second exposures (for the 150 and 200 meter targets). The Soldier engages 30 targets from the prone position and 10 from the kneeling unsupported position. A Soldier must successfully complete a record-fire table with the primary

sight and a similar table with each other assigned sights semi-annually to qualify. There are two semi-annual EST tables: unassisted night fire and chemical, biological, radiological, and nuclear (CBRN) fire. On the CBRN table, the Soldier must hit 11 of 20 targets while wearing a protective mask, and on the unassisted night-fire table, the Soldier must hit seven of 30 targets.

Individual Rifle Qualification Gaps. Many important types of combat engagements are not rifle qualification requirements. Some key examples are:

• When attacking, enemy soldiers would be moving (often in short rushes), but there are no engagements of this type.

• Engagements closer than 50 meters with wide sectors of fire are included in Advanced Rifle Marksmanship (ARM) tables, but these tables are optional and ammunition is only authorized for Infantry Soldiers. Furthermore, the "reflexive" engagements in the ARM tables are offensive in nature. The Soldier begins each engagement from a ready position as though expecting to see a threat. The Soldier then progresses through a series of drills that are based upon conducting an attack of a building. There are no requirements for Soldiers to demonstrate proficiency in reacting to an unexpected threat, such as an insider threat. Although the rifle manual discusses "eliminating threats" and talks about incapacitation, there are no drills that include more than two or three shots to a close-range target.

• In the offense, moving Soldiers must often stop and engage the enemy either from a standing position or from standing to kneeling, but there are no qualification requirements for a moving Soldier to demonstrate "short halt" engagement proficiency. The Combat Pistol Qualification Course (CPQC) range found in Training Circular (TC) 25-8, *Training Ranges*, supports these kinds of engagements.

• Combat arms Soldiers generally use night vision goggles and IR aiming lights during offensive operations and patrolling at night, but qualification to use these devices is the same as day record fire. The course of fire is from a stationary position and defensive in nature on modified, stationary record-fire ranges.

• When defending, tactically proficient enemy soldiers will hide and expose themselves as little and as briefly as possible, but target exposures during record fire are relatively long from this perspective.

• Record fire does not realistically exercise acquisition skills as the targets are designed to replicate a fully exposed kneeling or prone Soldier. The kneeling type-E plastic silhouette target is 40.25 inches wide by 19.5 inches tall, and the prone type-F plastic silhouette targets found at the 50- and 100-meter range band are 21 inches high by 26 inches wide.

• The fields of fire on the record-fire course are very narrow compared to many combat requirements, especially at longer ranges.

• There is no requirement that the olive-green silhouettes blend into terrain beyond the target. On some ranges, they blend in well, and on others they do not.

• There are no events that exercise the area-fire skills needed to suppress or kill concealed enemy soldiers, nor is there any required training on the engagement techniques

> *These points do not mean that the current record-fire standards are wrong; the current practices do exercise some important skills. But it does mean current practices are not complete. Success on the record-fire tables will not necessarily fully transfer to all the engagements a Soldier may face in combat.*

needed for effective area fire.

• The M16/M4 is designed to fire three-round bursts, and the M4A1 is designed to fire on full automatic, but there are no requirements for Soldiers to demonstrate proficiency in burst or full-automatic fire.

• The ranges are level whereas shooting at elevated targets or from elevated firing positions is common during urban operations and has been frequent in Afghanistan. Although some variance in terrain exists, the ranges do not offer the combination of distance to target and angle necessary to force Soldiers to adjust their aiming point.

• The backup iron sight and carrying handle sight are equipped with adjustments for elevation and windage, but Soldiers are not required to demonstrate proficiency in adjusting these sights to account for the effects of wind or distance to the threat.

• The Squad Designated Marksman (SDM) has proven to be a highly effective combat multiplier, but qualification is required and resourced only for SDM in Stryker brigades.

These points do not mean that the current record-fire standards are wrong; the current practices do exercise some important skills. But it does mean current practices are not complete. Success on the record-fire tables will not necessarily fully transfer to all the engagements a Soldier may face in combat.

Individual/Crew Machine Gun and Squad Automatic Weapon (SAW) Standards. Both machine gun and SAW individual/crew qualification requires completion of three tables. Table I is a short-range (10-meter) exercise that is done in the EST. Table II is a day live-fire event, and Table III is a limited visibility live-fire event required for Soldiers equipped with thermal sights or IR aiming lights.

Table I EST qualification requires the gunner and assistant gunner to exercise their ability to engage targets using traverse and search techniques by engaging a series of linear targets in depth and area targets with width and depth. A five- to seven-round burst is fired at each target, and the shooter gets a point for each target hit (up to seven per target). A total of 63 of 91 rounds must be hits for qualification.

Table II, the day live-fire qualification, involves seven engagements of point targets for both the machine gun and the SAW. Four are single targets, two have two targets, and one has three. The ranges are longer for the M240 machine gun (400-800 meters) than the SAW (100-400 meters). The SAW requires one engagement with the protective mask, but the mask is not required for the machine gun. Engagement

times for the single targets are 10-30 seconds for the single targets, 30-40 seconds for the two-target engagements, and 45 seconds for the three-target engagement. Seven of 11 targets must be hit to qualify. The machine gun may be fired from either the tripod or bipod.

Table III, night live-fire qualification, is similar to Table II with seven-point target engagements and a similar mix of single and multiple targets. However, the ranges are shorter.

Individual/Crew Machine Gun and SAW Qualification Gaps. There are similar but in many ways more important gaps in machine-gun and SAW qualification requirements than for the rifle:

• The standard machine-gun/SAW ranges have limited width (about 10 degree) sectors of fire compared to typical combat sectors of fire.

• A competent enemy will not willingly stay stationary and fully exposed while being shot at with an automatic weapon, yet these are the only types of engagements exercised.

• Machines guns and SAWs are primarily area-fire and suppression weapon systems, but area-fire skills are only exercised during the EST tables and this EST training is mechanical and does not present the gunner with tactically realistic engagements.

• There is no live-fire qualification requirement or authorized ammunition to qualify assistant machine gunners or ammunition bearers even though it would be critical to keep these key weapons firing in casualty situations and for sustained operations. Assistant machine gunners and ammunition bearers qualify on their rifles, separate from the machine-gun team, in the same manner as other Soldiers armed with rifles.

• Machine guns are normally employed in pairs, and alternating fires is a key tactic, but there are no structured exercises of these types of engagements.

• In the offense, machine guns often "march" their fires ahead of assaulting fires. Overhead fire is another technique, but neither of these techniques are exercised or feasible on standard live-fire ranges.

Collective Small Arms LFX. Completion of LFXs is required for qualification of collective elements including rifles, SAWs, and machine guns. These exercises require a large amount of unit effort to plan, coordinate, and conduct. The majority of a combat arms unit's authorized 5.56 and 7.62mm ammunition is allocated to collective LFXs. Given the significant effort and resources required, it is important that a commensurate training benefit in terms of the ability to individually and collectively engage the enemy be gained; however, there is little systemic support to this training goal. TC 7-9, *Infantry Live-Fire Exercises*, the main doctrinal guidance, does not have any guidance on what type of small arms engagements should be included in these events. Engagement standards are not outlined even in general terms, nor are there any guidelines on how trainers should assess and provide engagement skill feedback. Additionally, because there is limited instrumentation on most standard collective live-fire ranges, high levels of trainer observation and assessment skills are required for training success. In other words, after completing the individual record fire, Soldiers are not required to hit any targets during the LFX. Without evaluating the ability to hit or suppress during the LFX, there is a large possibility that ammunition will be wasted, and it is likely that Soldiers are reinforcing habits that are counter to solid fundamentals of marksmanship.[5]

Directions for Improvement

While acknowledging resource constraints, there are several possible improvements. The suggestions outlined below have been selected and developed with affordability as a major consideration. Some meet the need for basic unit self-defense and would apply to all Soldiers while others would apply to Soldiers in units that conduct offensive operations. For example, while support Soldiers could focus on self-protection type engagement skills and engagement skills relevant to defending a position or vehicle, Infantry Soldiers should also have offensive individual and collective engagement skills.

Train combat-critical engagement skills that are not feasible on live-fire ranges on the EST. Currently, the EST plays a limited role in small arms training strategies, but with the ability to portray realistically moving/evasive targets and the ability to capture and show exactly where rounds hit, the EST has a major capability to train combat engagement skills that are not practical on live-fire ranges. In fact, in terms of pure complex engagement skills training, the EST is better than a live fire in many ways. Moreover, ESTs are widely

U.S. Army Soldiers conduct training using the Engagement Skills Trainer (EST) at the Training Support Center in Grafenwoehr, Germany, on 20 June 2013.
Photo by Markus Rauchenberger

Paratroopers assigned to 2nd Battalion, 503rd Infantry Regiment, 173rd Infantry Brigade Combat Team (Airborne), conduct a squad-level live-fire exercise in Ravenna, Italy, on 2 April 2014.
Photo by Massimo Bovo

available but have very low utilization rates. Moving in this direction would require development of combat-critical small arms EST tables/standards and adding them as qualification requirements. The Maneuver Center of Excellence (MCoE) could develop practice and qualification tables in the near term by using the system's scenario editor to modify current collective scenarios and by providing guidance on how these tables should be conducted. The ability to take greater advantage of the use of these simulators will likely require additional investment. For example, the development of more realistic combat-engagement scenarios and diagnostics that could further improve effective training on these skills.

Add short-range and night vision goggle engagements as rifle qualification requirements. The current short-range qualification tables described in ARM tables in Chapter 7, FM 3-22.9, *Rifle Marksmanship M16/M4-Series Weapons*, could be used as the basis for a qualification standard and could be made a qualification for all Soldiers before deployment to an operational theater. Likewise, a requirement for short-range, IR aiming light with night vision goggle qualification should be added for Soldiers equipped with these systems.

Make SDM training a requirement for rating squads as qualified. Qualification engagements and standards would have to be developed and include both long-range live-fire engagements and more difficult EST engagements than in the standard rifle-qualification tables.[6]

Improve capabilities to evaluate engagement standards during LFX. As discussed earlier, there are no engagement standards for LFX. There are no guidelines that identify specific live-fire engagement tasks for inclusion or outline methods for promoting effective weapons skills evaluation. Given the considerable resources (both unit effort and ammunition required) needed to conduct this type of training and the fact that the number of current LFX qualification requirements are large (five annually for Infantry units and once annually for all others), formulating some engagement skills standards required for a successful exercise certainly makes sense.

While commanders need flexibility for conducting these types of events (e.g., the capabilities of collective live-fire ranges vary considerably across installations and units have different operational requirements), a greater degree of structure and guidance could provide for greater engagement skill benefit. For example, there could be guidance on target exposure times and presentations. Engagement-specific checklists to supplement tactically focused training evaluation outlines and support after action reviews (AARs) that include a discussion of the unit's demonstrated weapons proficiency during AARs could be developed (e.g., what percentage of targets were engaged; how many machine gun, automatic rifle, and rifle rounds were fired compared to target hits; was area fire effective; how well did each weapon crew and Soldier in the organization identify and engage targets in their sector?).

A reasonable approach to support collective live-fire improvement would be to involve the maneuver Combat Training Centers and the MCoE in a joint effort to develop and institutionalize improved techniques, procedures, and guidelines for conducting LFXs.

Develop specific combat critical engagement skills, tasks, and standards and tactics, techniques, and procedures (TTPs) to support their execution and training. Development of enhanced combat critical qualification requirements (types of engagements, conditions, accuracy, and speed requirements) could be done by a structured effort of a specially picked group of small unit combat experts.

A key consideration in developing these tasks and standards is ensuring that they are critical — that is that they are truly needed for combat success. But they must also be reasonable. The bar can be set high but should not be so high that most Soldiers cannot achieve them after a reasonable, and realistic, preparation program. This means that the standards and supporting train-up developed by proponent subject matter experts should be tested and validated in actual units before being prescribed Army-wide.

Coupled with this effort would be a complementary effort to develop small arms engagement TTPs that support reaching the combat skills standards (e.g. how to identify likely enemy fighting positions; how to acquire defending enemy soldiers, points of aim, and firing techniques for effective area fire; how to assume hasty firing positions while conducting fire and movement; how to position machine guns for maximum effect in the offense and defense, etc.). More effective TTPs on how to be an effective trainer are also needed (e.g. how do you assess the effectiveness of fire control/area fire during a squad LFX).

Establish a Small Arms Skills Tests (SAST) and rifle-

grouping exercises as standards or as qualification "gates." A final component of expanding weapon training standards would be to develop non-firing skills tests either as direct qualification requirements or as gates to live-fire or simulation engagement qualification exercises, similar to the Tank Crew Gunnery Skills Test (TCGST) or the Artillery Skills Proficiency Test (ASPT). The items on the test should be drills or skills with prescribed standards that are either directly related to combat-engagement success (e.g. rifle magazine changes/machine-gun reloading, immediate action procedures, weapon/ammunition/magazine maintenance, siting machine-gun final protective lines, etc.) or are needed to effectively engage targets (e.g. knowledge of ballistics, etc.). A structured analytical approach to determine the tasks and skills that should be gates to qualification would be important to ensure these tasks and their standards relate to engagement success.

A second gate would be a test of each Soldier's ability to shoot a tight shot group and, if this standard is not met, having the Soldier go through remedial training before moving on to rifle qualification. FM 3-22.9 and DA Pamphlet 350-38, *Standards in Training Commission*, combine zeroing with grouping. Under today's training strategy, Soldiers do not first demonstrate the ability to shoot accurately with live ammunition from various positions and under various conditions before executing record fire. Current record-fire qualification tables have limitations in increasing fundamental marksmanship skills because the Soldier only knows that the target was hit but never receives feedback on exactly where the bullet impacted. Precise feedback is necessary to diagnose, correct, and improve basic rifle-shooting skills. Precise feedback also allows Soldiers to continue to strive to improve their fundamentals of marksmanship. Although the need for this type of training is recognized in current weapons publications and widely accepted by the shooting community, there is no ammunition specifically allocated in DA Pam 350-38 for training of this type, nor are there any reporting requirements associated with executing this kind of training. By emphasizing the fundamentals of marksmanship, this type of training builds the skills necessary to progress to other, more realistic, courses of fire.

Formally Trained Small Arms Master Trainers Are Needed for Real Improvement

Implementing these suggested directions would require a high level of training skills from NCO supervisor to commander/staff levels. Teaching and coaching engagement tasks and skills, use of simulators, and the setting up of effective collective live-fire exercises all require small arms expertise. A review of the small arms training programs of several other nations and the U.S. Marine Corps (USMC) shows that the U.S. Army is alone in not having formal courses to train NCO small arms unit trainers. This gap is even wider for machine-gun training, where other armies and the USMC think effective engagement and employment is important and specialized enough to have a separate military occupational specialty (MOS) for machine gunners.

Such training could be institutionalized in many ways. However, the option with the greatest potential would be to establish a unit small arms weapons master gunner course at the MCoE, as is done for the tank, Bradley Fighting Vehicle, and Avenger. Included would be the award of an additional skill identifier and establishment of "communities of practice" for keeping graduates updated and contributing to the exchange of best practices. A reasonable goal would be to have battalion- and company-level small arms master gunners in military police, combat engineer, Infantry, and combined arms battalions and to have battalion-level small arms master gunners in other type units.

The concept of a small arms master gunners program has long been advocated by various organizations in the MCoE, but the resources necessary have never been provided and the concept has never progressed to implementation.

Improving Small Arms Standards and Training Will Not Be Easy

The Army should include more types of important engagements that would be frequently encountered in combat as qualification requirements.[7] While adding qualification requirements for successful combat engagements is logical, making such changes will be difficult.

Defense budgets are under great pressure. So adding resources to enhance qualification requirements would be a challenge. Current range capabilities (for example, wider sectors of fire, moving targets, and automated area-fire scoring for machine guns, SAWs, and collective LFX) are not sufficient to support adding these as live-fire qualification requirements.[8] Likewise adding qualification requirements

A 2nd Cavalry Regiment Soldier fires at a target during M4 carbine rifle qualification at the Grafenwoehr Training Area, Germany, on 30 July 2014.

would require ammunition and would require unit commanders to allocate added time, both to conduct the events and to prepare their Soldiers to reach the heightened standards, so adding qualification events must be carefully considered.

Implementing the qualification enhancements suggested will require allocation of ammunition, but the amount would not be large. SDM qualification could be implemented using the ammunition currently allocated for ARM. The amounts of ammunition needed to add close-range self-defense and night vision goggle qualification would be modest if ARM allocations were used for Infantry Soldiers; for non-Infantry Soldiers, these types of engagements can be a pre-deployment qualification requirement with ammunition coming from contingency allocations.

If there needs to be a "zero-sum" approach, there are "bill-payers" that could allow re-allocation of ammunition in current strategies to enhancement of combat-critical engagement skills training. One possible target could be the semi-annual requirement to shoot the same 40-round, record-fire table with each sight semi-annually. There are others — for example, is it really necessary to fire 40 rounds to validate proficiency on the current record-fire tables? Do Infantry units need to fire a LFX every quarter given a progressive readiness Army Force Generation (ARFORGEN) training strategy? Should there not be ammunition allocated to training and sustainment of individual skills rather than repetitive qualification?

A major shift would be using the EST to train and qualify combat-engagement skills that are not practically possible using live-fire modalities. The low EST utilization rates indicate this is possible. Moreover, this use of EST meets a far higher readiness need than the CBRN and unassisted night-fire skills that could be exercised using other approaches.

A second issue is that a focused effort will be needed to select the engagement tasks that must be added and to develop standards that adequately test the skills but are also realistic in that they can be achieved with a reasonable amount of unit training effort. Expert judgment as well as testing will likely be required in a sustained effort. Making such an effort would be a challenge given the other claimants on the U.S. Army Training and Doctrine Command's (TRADOC's) limited training development staffing, and it would likely require a high-level TRADOC and MCoE priority and support for a reasonable chance of success.

Conclusion

In this article, we have outlined directions the Army should take to address a serious shortfall in the Army's small arms training strategies — critical engagement skills that are not prescribed qualification requirements. It is very likely that operational success in many future operational settings will depend on small arms proficiency on these skills. This article argues that the Army should take the needed but difficult actions to address this issue. We have presented our conclusions to a wide number of members of the Army's training community, and there have been no challenges to these conclusions. However, an underlying consensus seems to be that the efforts needed to move in these directions are so large that it would take an Army decision at a high leadership level to make real improvement.

Notes

[1] The content of this article is based on a recently published (2014) RAND Report, "Changing the Army's Weapon Training Strategies to Meet Operational Requirements More Efficiently and Effectively (RR-448-A)," which examines a broad range of weapon training strategies and their improvement. This report is available for download or order at http://www.rand.org/pubs/research_reports/RR448.html.

[2] The data in this section come from DA Pamphlet 350-38, *Standards in Training Commission (STRAC)*, which outlines the training events required for qualification on a weapon, other events in the weapon's training strategy, frequency of the events, and number of rounds authorized for each event. FM 3-22.9, *Rifle Marksmanship M16/M4 Series Weapons*, and FM 3-22.68, *Crew-Served Machine Guns 5.56mm and 7.62mm,* were also examined to provide detail on the standards (type and number of targets presented and number of hits required) for each event.

[3] The EST used for unit training has 10 firing lanes. The basis of issue is one per brigade combat team or equivalent. The EST is a computer-operated simulator that provides the Soldiers with a realistic opportunity to engage targets with simulated weapons that physically replicate shooting actual weapons. The strike of rounds on the target is ballistically accurate, and the software provides for feedback (e.g. where target was hit, how the sight picture changed). Weapon modifications include an eye-safe laser; sensors to measure trigger pressure, cant, and ammunition magazine/belt status; and a compressed air operating system to provide recoil. "Shoot, don't shoot," collective, and marksmanship scenarios are also preloaded onto instructor/operator stations.

[4] See TC 25-8, *Training Ranges*, May 2010, for a full description of the standard record-fire rifle range.

[5] The Army is developing improved range-instrumentation capabilities, but fielding a capability to make them available on a scale to support current small arms strategies is not possible in the near or mid-term. Moreover, the degree these will allow automated feedback (e.g. suppressive fire effectiveness) is not clear.

[6] FM 3-22.9 outlines an SDM training program, but it has no specific qualification standards. It requires the Soldier to hit 14 of 20 targets at ranges of 100 to 500 meters, but specific ranges, types of targets, and engagements times are not provided. The issue is that the SDM can be armed with different types of rifles, and specific engagement standards would vary by the rifle's capability.

[7] Even having a qualification standard does not guarantee that all units will execute the events. For example, EST tables are semi-annual qualification requirements for the rifle, SAW, and M240B machine gun, but utilization rates of the EST are far below what would have been required to meet this requirement. Similarly, five LFX a year are required for rifle, SAW, and M240B qualification, but a RAND review of heavy and light brigade combat team (BCT) training programs in 2000-2001 shows that the typical light performed only about three annually, and the average for heavy BCTs was less.

[8] Location of Miss and Hit (LOMAH) is a range instrumentation system with the potential to support area fire scoring, but it is mainly used to support basic rifle marksmanship in Initial Entry Training and is not fielded at unit installations.

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WHY THE ARMY NEEDS AN
ULTRA LIGHT COMBAT VEHICLE

JOHN FULLER

For five millennia, the Infantryman has been a vital component of land armies, and land armies have been the dominant form of military power. Land forces are the most important form of military power because land is where people live, work, govern, establish markets, and build civilizations. Land is the domain of humans, and it is the land force that engages with populations. The U.S. Army is America's primary land force to build strategically important relationships and sustain peace.

The decisive combat organization of the Army is the maneuver brigade combat team (BCT). At the end of 2015, the Army currently projects that only 32 BCTs will remain in the active force (this number could be significantly less), and of those slightly less than half will be Infantry BCTs (IBCTs).[1]

The foot-mobile capability of Infantrymen remains an essential capability when confronted with complex terrain. But, the limitations of foot mobility can also be a detriment to mission accomplishment and survivability. In the current operational environment, most potential adversaries an IBCT would face are mobile. Their capabilities range from conventional motorized armies to irregular civilian vehicle fleets. In order to seize and maintain the initiative against these potential adversaries, IBCTs must have a lightweight transport that is strategically and operationally deployable, and that provides Infantrymen with improved tactical mobility, agility, and speed.

Description and Background

In a recent press release, the Army's Maneuver Center of Excellence (MCoE) at Fort Benning, Ga., described the ultra light combat vehicle (ULCV) as: "providing ground combat movement and maneuver capabilities for scouts and Infantry squads and can be inserted using penetrating vertical lift platforms (UH-60 and CH-47) in high-altitude and high-temperature environments as well as by parachute. ULCVs encompass a range of options, from single Soldier mobility such as exoskeletons and individual all-terrain vehicles through team and squad level options such as multi-person all terrain vehicles. The defining parameter to qualify as 'ultra light' is the ULCV must weigh less than 4,500 pounds in full combat configuration to support sling-load vertical delivery by UH-60 aircraft.[2]"

Recently, the Army hosted a ULCV platform performance demonstration at Fort Bragg, N.C., to determine if current industry technology is capable of producing a vehicle that can meet Army requirements. Six candidate systems participated in the demonstration, and the results validated that industry is capable of producing a vehicle that can meet or exceed draft threshold requirements; however, there is no commercial-off-the-shelf (COTS) vehicle that meets all ULCV threshold requirements. Regardless, the demonstration results are encouraging in that industry has proven it can build a ULCV that meets Army requirements and do so at a reasonable price. But, this does not address why the Army needs the ULCV.

The intent of this article is to make the case for why the Army needs a ULCV, not to offer a specific solution. A lengthy and ultimately expensive development process is not needed; rather, selecting and adapting a COTS system that is affordable and immediately available is viewed as the most reasonable and cost-effective approach.[3] This article offers nine significant and compelling reasons for fielding ULCVs to the IBCT; however, the fiscal austerity that continues to pervade Washington suggests limiting funding to equip only airborne IBCTs with ULCVs. This recognizes the airborne role in initial stages of forcible entry operations and supports current airborne doctrine characterized by multiple dispersed drop zones.

Reasons

#1. Retaining the Strategic Deployability Edge. The IBCT is and must remain the Army's most strategically deployable formation. Its strategic deployability advantage stems from its ease of transportability by airlift rather than sealift. Speed in deploying a BCT formation is important, but getting anywhere in the world quickly is of little value if

the force lacks tactical mobility once on the ground. Unlike the Stryker BCT (SBCT) and Armor BCT (ABCT) which are encumbered by the large combat vehicles that make up those formations, the IBCT has no such encumbrance; its primary weapon is the Infantry Soldier. As stated in the U.S. Army Operating Concept, "To seize, retain, and exploit the initiative under conditions of uncertainty and complexity, Army forces must act and respond faster than the enemy."[4]

At the strategic level, rapid deployability is critical to seizing the initiative. At the tactical level, mobility on the battlefield allows IBCTs to retain and exploit the initiative through rapid maneuver. The strategic lift needed to support the delivery of squad ULCVs is negligible from either a weight or volume standpoint, but the tactical mobility they provide the Infantry force once on the ground is substantial. Retaining the IBCT's strategic deployability advantage is essential; adding the ULCV retains this capability and provides a matching tactical mobility capability needed to fight our future enemies.

The ULCV must be capable of deploying by C-130 aircraft, to include airdrop, with no change required to the physical configuration of the vehicle prior to loading on the aircraft or when rigged for airdrop. Additional deployability requirements include airdrop from C-17 aircraft using a Dual Row Airdrop System (DRAS) in combat configuration to maintain the ability to fight immediately upon arrival onto the drop zone or when driven off the ramp of the aircraft. The ULCV also provides a rapid option to drive on and off a CH-47 and is sling-load transportable by UH-60 in combat configuration.

#2. The Global Response Force (GRF) and Joint Forcible Entry Operations. The joint GRF is the nation's premier option for rapid crisis response with an operationally significant force. The airborne IBCT is the cornerstone of this force, capable of conducting airborne joint forcible entry to secure strategic access anywhere on the globe. When conducting joint forcible entry, an airborne IBCT seizes the initiative by conducting an airborne insertion at a time and place where the enemy is least prepared. The ULCV will allow the airborne IBCT to retain and exploit the initiative by enabling rapid, extended maneuver on the ground, without significantly diminishing the strategically important rapid deployability and small logistic footprint of the force. The small size of the ULCV allows it to be airlifted for extended distances and to the high elevations that characterize much of the terrain in regions where Army forces expect to engage future enemies. It is also capable of being loaded in a C-130, which is critical to the GRF. As the GRF may be constrained by Air Force assets for insertion (and is likely to be inserted via C-130 due to the prevalence of that platform in the Air Force fleet), any solution for tactical mobility must be C-130 loadable to be useful to the GRF. The ULCV supports the future maneuver concept of widely distributed, mutually supporting small unit operations; the employment of infiltration tactics to gain positional advantage over our enemies; the ability to rapidly mass forces and fires from widely dispersed locations; and the ability to rapidly disperse afterward.[5]

Other joint forcible entry requirements necessitate tactical

Figure 1 — The Six Candidate Systems that participated in the ULCV Demonstration at Fort Bragg

BOEING PHANTOM BADGER

HENDRICK DYNAMICS COMMANDO

POLARIS DAGOR

GENERAL DYNAMICS ORDNANCE AND TACTICAL SYSTEMS FLYER GEN III

LOCKHEED MARTIN COMMON VEHICLE NEXT GENERATION

VYPER ADAMS MODULAR PLATFORM VEHICLE

mobility for the airborne IBCT as well. To insert at a time and place for which the enemy is unprepared, it may be necessary to conduct the airborne insertion some distance from a militarily desirable objective, such as an airfield needed to introduce follow-on forces, additional non-air-droppable systems, and logistic assets. With ULCVs, the airborne force can insert far from the objective and maneuver quickly to seize the objective before its defenders can react. Compared to the capability of a force constrained to walking, the ULCV offers tremendously enhanced mobility to achieve this requirement.

Almost all joint forcible entry missions will entail the establishment of a security zone around the airhead. As additional forces, systems, and logistic assets arrive at an airhead, they will be vulnerable to enemy attack unless a security zone is established. The tactical mobility granted by the ULCV will enable this security zone to be much larger, greatly enhancing the protection afforded friendly forces and the airhead, especially from long-range fires.

#3. The Future Operating Environment. Our future enemies are myriad. The Army is operating in a globally connected world. The Internet and social media provide a free worldwide network that is accessible to the law abiding and the lawless alike; these new communication capabilities have become the preferred means used by criminals, terrorists, or even nation-states for fomenting political unrest, civil disorder, and radical behavior directed at any and all who may be susceptible.

The Army and IBCTs must be prepared to fight across the range of military operations, from unconventional to conventional, from insurgencies to conflicts involving the use of weapons of mass destruction. Enemies may consist of convergent elements including transnational criminals, rogue nations, militant theologies, and forces equipped with modern weapons and financed by trillions of dollars in revenues annually generated from illicit markets and trade that proliferate worldwide.[6] We must have the ability to adapt rapidly to a hybrid environment that is extremely dynamic and complex.

There will be periods during future conflicts when our Infantry forces will require protected road mobility, and there will be periods during which that same Infantry will require enhanced cross-country mobility offered by a ULCV. There will also be times the Infantry will be required to fight in complex terrain that requires squads to operate on foot and have access to multiple enablers. This suggests that our conventional forces must begin to operate and think like our special operations forces (SOF) by adopting an arms room concept both in terms of weapons carried and vehicle transportation used. The ULCV is one of the vehicles that must be an IBCT capability.

#4. Increase Tactical Speed. Speed, although not itself a principle of war, contributes to four areas that are principles of war: surprise, the offense, maneuver, and security.[7] Speed is a quality needed in all tactical operations from offensive to defensive. Speed is essential because warfare is by its nature dynamic and ever changing. At best, the consequence of not acting with speed is a lost opportunity, and at worst it is a decisive loss.

From the viewpoint of movement and maneuver, speed is important in reducing risk and maintaining the initiative. The ULCV increases the average cross-country movement speed of the Infantry from 4 miles per hour to 20. Increased speed allows formations to rapidly move through danger areas and around obstacles. Speed can be used to avoid enemy strong points, quickly reinforce battlefield success, speed infantry forces to augment threatened positions, rapidly deploy a reserve Infantry element to positions of advantage from which to launch a counterattack, or relocate forces to block a flanking movement by the enemy. When viewed from the perspective of multiple scenarios that would normally put our dismounted Infantry at risk, the increased cross-country speed provided by the ULCV allows us to reverse

A vehicle parachutes to the ground as a C-17 Globemaster III aircraft prepares to drop additional vehicles during an airborne training exercise conducted by the 82nd Airborne Division on 8 September 2011 at Fort Bragg, N.C.

Photo by SGT Michael J. MacLeod

that dynamic. Speed reduces the enemy's time to react to our initiatives; it therefore increases our ability to maintain the initiative and likewise increases the commander's ability to exploit success. Speed is a capability of the ULCV that in certain terrain makes it superior to foot mobility.

#5. IBCTs Need More Mobility to Effectively Maneuver. Maneuver is mobility and direct firepower. Mobility simply means the force can move, but maneuver entails moving the friendly force to a position or positions of advantage relative to the enemy to enable the most effective use of direct fires in support of the Infantry's assault to seize and secure the objective by attacking the enemy's flanks or rear.

The essential purpose of the ULCV is to provide greater battlefield mobility than foot mobility offers. Greater battlefield mobility increases the maneuver options of IBCT commanders in terms of time and distance. The increased tactical mobility of the ULCV increases the span of influence a ULCV-equipped Infantry force can achieve. Each of the mobility capabilities of the ULCV enhances the maneuver footprint of the IBCT; this is significant and critical for the IBCT.

#6. Facilitates Dispersed Operations for IBCTs. The central idea of future maneuver forces is to conduct combined arms, air-ground operations, and operate dispersed over wide areas.[8] Complex terrain, which will characterize future wars, largely precludes the employment of large formations and will result in our reliance on dispersed but mutually supporting units that execute aggressive actions unified through commander's intent.[9] Similarly, the ULCV provides airborne IBCTs the capability to employ dispersed offset drop zones during forcible entry operations, especially those operations in which an anti-access/area denial (A2/AD) environment is anticipated.[10] The ULCV allows the Infantry force to operate longer, in dispersed locations, and over greater distances to meet the envisioned doctrinal concepts driven by the future operational environment. For IBCTs, the ULCV enables us to realize those doctrinal concepts.

#7. Mission Command. The ULCV equipped with a more capable mounted antenna and charging station will substantially increase operational range of the squad radio and enhance situational awareness (SA) while providing improved mission command on-the-move capability. The squad radio can interface with aerial and ground sensors which provide video streaming feeds from their respective source systems, a substantial improvement over current SA capabilities for dismounted Infantry.[11] This mission command enhancement will aid in preventing fratricide, providing on-the-move and dismounted command and control, and improving SA, which will enable the squad to be more survivable and lethal.

#8. Reduce the Infantryman's Burden. In 1902, an article appeared in *The New York Times* decrying the burden of Infantrymen and saying that military authorities were trying to reduce the weight now carried, which at that time was 76 pounds per Infantryman. S.L.A. Marshall's well-known treatise, *The Soldier's Load and the Mobility of a Nation*, also recounted the negative effect of the Soldier's load on his performance in combat.[12] But perhaps nothing better captures the real dilemma of the increasing weight carried by our Infantry than an excerpt from a McClatchy newspaper in 2009 that recorded an Army Infantry platoon in pursuit of a Taliban unit:

In Afghanistan a lieutenant led his patrol in hot pursuit of a Taliban band mounted in stolen pickup trucks. His six-ton, up-armored vehicles bucked and swerved through the cross-country chase. The more agile (Taliban) pickups easily pulled away and enabled the insurgents to escape on foot up a mountain. When the officer dismounted his troops and sent them after their quarry, they fell even further behind, for each man had to clamber upward encumbered with 60 pounds of [additional weight including] body armor... weapon, ammunition, communications and survival pack. The officer aborted the mission.[13]

We have unintentionally reduced the Infantryman to a pack mule, requiring him to carry a rucksack, personal protection, his weapon, ammunition, grenades of varying types, food, water, and other sundry items to include some type of enabler that may weigh in excess of 50 pounds.[14]

In every war we continue to increase the personal protection afforded our Soldiers. In Vietnam, American Soldiers wore a bullet-proof vest made of ballistic nylon that weighed less than eight pounds.[15] The current protective ensemble now provided to our Soldiers weighs 21.8 pounds.[16] This ensemble protects more of the Soldier's torso and limbs, but the additional weight reduces Soldier agility making him vulnerable for longer periods and inducing fatigue more rapidly. The ULCV offers relief from the physical and mental exhaustion of dismounted movement, reserving the Infantryman's strength for the critical close fight.

The capabilities of the Infantry force continue to grow aided by continuing emphasis and funding for the "Squad: Foundation of the Decisive Force" initiative that began in 2010.[17] Many of these initiatives include new enablers to provide the Infantry squad with needed capabilities. While many enablers cannot be carried due to weight and size limitations, the ULCV is capable of accommodating some when the mission dictates.

Currently, there are limited recharging solutions available to the IBCT. However, extended duration operations require Infantrymen to carry a large number of spare batteries, thereby exacerbating the load problem. While not the only solution, power generation for the Infantry squad would significantly mitigate the risk of inadequate power at critical times and simultaneously reduce the need to carry additional batteries. The ULCV can provide the recharging capability so urgently needed by the IBCT.

#9. Medical Evacuation. In every war involving American Soldiers since the beginning of the 20th century, the percentage of Soldiers saved after being wounded on the battlefield has consistently increased.[18] Although some of this is due to increasing medical capability, most of the increase is due to the application of immediate battlefield triage provided the Soldier and the speed with which the Soldier is evacuated to a field medical facility. The ULCV provides the Infantry squad with a capability to rapidly move battlefield casualties to a safe pick-up zone where a medical evacuation helicopter can speed the Soldier to a field hospital.

Considerations

The previous assessment of the Infantry's need for a ULCV does not offer a specific solution. However, the Army should consider the following as it considers a ULCV solution:

1. Developing the ULCV as a new system would be both a long and overly expensive process; the Army should seek an affordable, commercially available, but adaptable solution.[19]

2. The solution should be simple and not attempt to solve everyone's requirements with a 100-percent solution; the 80-percent solution is better than none.

3. The ULCV is first a personnel transport system and second an equipment transport; to the extent the ULCV can carry the Soldier's load in whole or in part, it should be used for this purpose.

4. A squad multipurpose equipment transporter (SMET) may be needed in addition to the ULCV.[20]

5. Consider requesting the manufacturers of the COTS products include a hybrid engine that would provide a silent-run capability as an option.

6. Protection standards that add weight and negate the ULCV's agility and cross-country capability should be avoided. Its cross-country mobility, agility, and potential silent-run capabilities are its inherent protection.

7. Provide the ULCV with an enhanced antenna and power-generation station to increase its capabilities.

Considerations 5 and 7 are enhancements the Army should consider when evaluating ULCV candidates.

Conclusions

The Infantry can no longer rely on foot mobility alone on today's up-tempo, dynamic, and changing battlefield. Foot mobility will always remain an essential Infantry capability, but the future reality is that we must have greater mobility as an option. The ULCV adds a needed capability to Infantry maneuver in several ways: mobility to support dispersed wide area security; increased speed; extended reach; burden reduction; carrying enablers; battery charging; mission command enhancement; and offering the commander new maneuver options. Most importantly, the ULCV saves the Infantryman's strength and mental alertness for the critical close battle and permits the Infantry force to operate longer and over greater distances with less fatigue.

Providing IBCTs with squad mobility is overdue, and the ULCV is one answer to this long-standing need.

Notes

[1] Matthew Cox, "Army Must Shed 6 BCTs to Meet Proposed Budget Cuts," online article appearing on Military.com on 28 February 2014 at http://www.military.com/daily-news/2014/02/28/army-must-shed-6-bcts-to-meet-proposed-budget-cuts.html.

[2] Press release prepared by COL Rocky Kmiecik, director of the Mounted Requirements Division, Capabilities Development and Integration Directorate, MCoE, 22 January 2014.

[3] MCoE, "What Is a Combat Vehicle Modernization Strategy and Why Is It Important (Final Draft)," Fort Benning, 4 March 2014, 4-5.

[4] TRADOC Pamphlet 525-3-1, *The Army Operating Concept* (Fort Eustis, VA: TRADOC, August 2010) 11-12.

[5] MCoE, "The U.S. Army Functional Concept for Movement and Maneuver, 2018-2030 (Draft)," 23 June 2014, 10.

> *The Infantry can no longer rely on foot mobility alone on today's up-tempo, dynamic, and changing battlefield. Foot mobility will always remain an essential Infantry capability, but the future reality is that we must have greater mobility as an option.*

[6] Admiral James G. Stavridis, foreward to *Convergence: Illicit Networks and National Security in the Age of Globalization*, edited by Michael Miklaucic and Jacqueline Brewer, (Washington, D.C.: Center for Complex Operations, National Defense University Press, April 2013), vii – xxi.

[7] John A. English, *A Perspective on Infantry* (NY: Praeger Publishers Inc, 1981), 48.

[8] TRADOC Pamphlet 525-3-6, *The United States Army Concept for Movement and Maneuver 2018-2030 Version 2.2 (DRAFT)* (Fort Eustis: TRADOC, 2014), 10-11

[9] Ibid.

[10] Field Manual (FM) 90-26, *Airborne Operations* (Washington, D.C.: Department of the Army, 1990).

[11] PEO Mission Command.

[12] S.L.A. Marshall, *The Soldier's Load and the Mobility of a Nation*, 1950.

[13] Online article prepared by GEN (Retired) Paul Gorman, http://usacac.army.mil/cac2/CSI/docs/Gorman/06_Retired/03_Retired_2000_11/22_09_SoldierFuture_Jun.pdf, 2.

[14] Online PowerPoint presentation on operational loads from the 2nd Battalion, 504th Parachute Infantry Regiment (PIR) during Operation Iraqi Freedom III at http://thedonovan.com/archives/modern warriorload/ModernWarriorsCombatLoadReport.pdf.

[15] Ibid.

[16] GEN Ray Odierno, Lightening the Load Update (prepared by PEO Soldier), 30 January 2012, 4.

[17] MG Robert B. Brown, "Infantry Squad: Decisive Force Now and in the Future," *Military Review*, Nov-Dec 2011, 2-9.

[18] Scott S. Gartner, "Iraq and Afghanistan through the Lens of American Military Casualties," *Small Wars Journal*, 3 April 2013, Figure 1.

[19] Maneuver Center of Excellence, Combat Vehicle Modernization Strategy (DRAFT), 26 February 2014, 9.

[20] U.S. Army Capabilities and Integration Center, Unmanned Ground Systems: Robots in the Fight (PowerPoint presentation to NDIA). Located online at https://www.google.com/#q=squad+mobile+equipment+transport+smet. Slides 4/7.

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TRAINING AT THE COMPANY LEVEL BETWEEN U.S. AND POLISH PARATROOPERS

CPT ARKADIUSZ SKRZEK, POLISH ARMY
CPT TEDDY BORAWSKI

From April to June 2014, paratroopers from the 173rd Airborne Brigade's Charlie Company, 1st Battalion, 503rd Infantry Regiment trained alongside Polish paratroopers from the 6th Polish Airborne Brigade's 2nd Company, 16th Airborne Battalion as part of Operation Atlantic Resolve, demonstrating commitment to defense of NATO members in light of Russian aggression in nearby Ukraine. In this article, CPT Teddy Borawski, commander of C/1-503rd, and Polish Army CPT Arkadiusz Skrzek, commander of 2nd Co., 16th Airborne Bn., give their perspectives on the value of the combined training.

Sky Soldiers Learn From and Share Experiences with Polish Paratroopers

CPT Borawski —

On 18 April 2014, my battalion was serving as the 173rd Airborne Brigade's Army Contingency Response Force (ACRF) in Europe. As such, our battalion was on four-hour recall, ready to deploy within 18 hours of notification. In response to recent Russian aggression in Eastern Europe, we were alerted that we would quickly be deploying to Poland and the Baltic states to assure our NATO allies of America's commitment to collective defense outlined in the Washington Treaty.[1] The hours of equipment and personal readiness preparation we completed as part of ACRF enabled us to respond with operational calm.

My company was to be first of four deployed, with each heading to a different NATO allied nation. We would be deploying to Poland to partner with the Polish 6th Airborne Brigade. Professionally, I was excited for the challenges to come; personally, I was excited to connect with my Polish heritage over the next few months.

Prior to arriving in Poland, we received briefs on our companies' expectations in partnering with our allies. We also received superb public affairs training in anticipation of media interaction. This proved beneficial as soon as my company landed in Poland. When our aircraft touched down, our brigade public affairs officer stepped aboard to brief me on the reception that the Polish Ministry of Defense had planned. My first sergeant quickly formed the company, and we moved into formation next to our Polish allies. I knew that this event would attract international attention, but I didn't expect the large mass of media, the U.S. Ambassador, and the Polish Minister of Defense to greet us and host a ceremony marking our arrival. Immediately afterwards, the swarm of media engulfed us and began asking questions.

I was fortunate to have had the opportunity to be a part of this operation, and it has left me with a number of takeaways that I will have for the rest of my Army career. During our Atlantic Resolve rotation, our two companies were able to impart new skills and a better understanding of how another airborne unit focuses and conducts training, all the while improving the interoperability between our tactical formations. In determining our training path in Poland, discussions with CPT Skrzek as well as other Polish commanders helped us craft training events to bridge ourselves from the counterinsurgency (COIN) focus of the past several years and begin exploring ways to focus on the conventional fight.

Over the next two months, my company partnered with each of the three battalions that make up the 6th Airborne Brigade. Each battalion arrived at the training area motivated and eager to work with us. This training mission proved to be the opportunity of every Infantry company commander's dreams. I was given almost complete autonomy in planning and executing our training path with a large swath of land and resources. Prior to our arrival, we had recently

Photo by Michal Fludra

CPT Teddy Borawski (front, saluting) and the paratroopers of Charlie Company, 1st Battalion, 503rd Infantry Regiment, 173rd Airborne Brigade, arrive in Poland on 23 April 2014 at Swidwin Airbase to conduct combined training as part of Operation Atlantic Resolve.

on the impact the event left on us in terms of our comfort operating with and next to each other on any future battlefield.

The concept and value of embracing our NATO allies was driven home for me. As we have fought beside them in Iraq and Afghanistan, it is important to continue to train and promote interoperability within the alliance. In any future fight, we will most certainly be working side by side, so the importance of training that way in the interim is paramount. Much like us, they have a lot of great ways to approach a problem. Sharing these ideas will undoubtedly result in a more lethal force.

On a personal aspect, my paratroopers interacted with their counterparts extensively — forging new relationships. In addition to the individual and collective training, we were able to conduct several wing exchanges with both the Canadians and the Polish. As paratroopers, we were united by this commonality. It may sound cliché, but it does take a certain type of Soldier to volunteer to jump from an aircraft into combat. The brotherhood that surrounds the airborne community extends past the ranks of the U.S. Army to all who wear the maroon beret. The quick and strong camaraderie forged between the three nations of paratroopers in Poland reinforced this idea.

The personal relationships I made are ones I will have forever. CPT Skrzek and I found a lot of common ground both personally and professionally. He is someone I respect immensely, and I am excited to watch him progress in his career. He personified the fact that our allies are strong, well trained, and eager to work with us. Before this I thought "interoperability" was a buzzword, but after the completion of our rotation to Operation Atlantic Resolve, my company and I wholly embrace multinational training and the resulting strengthened ties with our NATO allies.

Observations from Training with Charlie Company
CPT Skrzek —

"If one of us becomes tired, the other keeps watch for him!
If one of us should doubt, the other smiles faithfully!
If one of us should fall, the other stands for two!
For God has attached to every warrior, His comrade!
Loyalty for Loyalty!"[3]

With those words, Friedrich August von der Heydte, the commander of the 6th Fallschirmjäeger Regiment during World War II, described the spirit deeply ingrained within each paratrooper's soul. Loyalty, combat initiative, readiness to fight against an unknown menace in the most undesirable of circumstances, deep trust for teammates, and utmost respect for the sacrifice of every other paratrooper are just a few of the core values of airborne troops. It was in this airborne spirit, together with developments on the Eastern doorstep of NATO, that brought together two companies — C/1-503 and the Polish Army's 2nd Co., 16th Abn. Bn., 6th Abn. Bde. — for shared field exercises at a training area in Drawsko-Pomorskie, Poland.

Although initially labeled as "land forces assurance

Photo by 1LT Thomas Johnston

Polish Army Captain Arkadiusz Skrzek (right) assists CPT Teddy Borawski in donning the U.S. T-11 parachute during a combined airborne operation in May 2014 in Drawsko Pomorskie, Poland.

completed team and squad live fires, so we were ready to begin conducting training at the platoon and company levels.

One of the first training events we conducted with our Polish allies was a company bridge assault. This is a classic airborne task that has fallen out of regular training focus across our Army. We relied on our Polish counterparts for some of the tactical planning and learned their doctrinal method of seizing a bridge in enemy-held territory. This training event served to open the door in sharing each other's doctrinal approach to future problem sets specifically focused on a conventional fight. The technique they showed us resembled our own doctrinal method for a company attack with a support-by-fire element and an assaulting element.

In addition to these larger collective training events, and the fact that we were working with resources our counterparts do not normally have access to, we discussed what type of training we wanted to complete together. CPT Skrzek and I discussed my company's past training in urban breaching. One of my platoon sergeants is master breacher-qualified and ran a breacher course for the battalion only a few months prior. With these resources, we planned a combined breacher course not only with our Polish allies but also with the Canadian paratroopers that had joined us.[2] We conducted two courses over the span of a week, teaching all aspects of conducting a breach from building the charges to actions in and after the breach. Our counterparts were very appreciative as they now had a new capability within their formations.

The culminating event for our rotation through Poland was a combined battalion airfield seizure with our Polish and Canadian allied companies. All planning was conducted alongside our allies, from the creation of graphics to a combined rehearsal of concept drill. This event proved to each of the our companies that we were capable of coming together, planning, and executing a complex task. The Canadian and Polish commanders and I talked afterwards

exercises," from my perspective the combined NATO drills had a different meaning.[4] Both our companies brought extensive organizational experience of multiple combat rotations within the International Security Assistance Force (ISAF)/Operation Enduring Freedom (OEF) framework (including a shared combat deployment in 2012 where we fought side by side in Ghazni Province in Regional Command-East). Due to a decade of fighting in Iraq and Afghanistan, the COIN mindset and tenets of asymmetrical warfare dominate our small-unit leadership. On one hand, this combat experience enhances our flexibility and sharpens our awareness of battlefield variables. On the other hand, it clouds the conventional dimension of airborne-typical tasks, forcing us to search deeper into the history of 20th century warfare and to take the best of both historical and modern airborne experiences to meet future battlefield requirements. This is why our combined training encompassed all the phases of airborne operations from troop leading procedures (TLPs) to actions on the objective.

Airborne operations are unique in that we deliberately put ourselves into encirclement — a position of obvious tactical disadvantage — forcing us to adopt Sun Tzu's philosophy of seizing the initiative and inhibiting the enemy's ability to adapt.[5] We thus focused our training at the squad and platoon level, in order to develop tactical flexibility and capabilities to control chaos on a rapidly evolving battlefield. I enjoyed watching combined U.S. and Polish attacks at the platoon level that brought disorder within the ranks of the opposing force. While observing combined platoon attacks, platoon leaders made changes to the original plan due to changes in enemy force arrayal.

As a commander, it pleased me to see adaptive leaders doing what they could to seize the initiative. This adaptability is critical to transforming our weaknesses into our strengths. Overall, Polish squad- and platoon-level leaders benefited from Charlie Company's methodical approach to TLPs. Apart from polishing our English-language skills, we practiced and synthesized new methods of small-unit information preparation of the battlefield, rehearsals, and mission command, and to some degree adapted them to our own tactics, techniques, and procedures (TTPs).

Apart from tactics, we focused on the development of close combat live-fire skills and proficiency in placing supporting mortar fire, exploiting the increased availability of resources we received for the mission. This helped build paratroopers' situational awareness and mirrored the limitations that airborne elements need to be prepared to face.

Together, CPT Borawski and I conducted an advanced rifle marksmanship course. In doing so we were able to see that both of our companies train the same skills in combat shooting and have similar views on the subject. Here, I experienced one of the major lessons learned from our

Canadian paratroopers participate in an American-run rifle qualification range on 12 June 2014 at a Polish military training camp outside of Drawsko-Pomorskie, Poland.

Photo by Erin McDonough

combined training — tactical-level attitude towards risk management. In running a small arms range, our American allies demonstrated the value of utilizing NCOs in a range safety role. This experience allowed me to completely reevaluate Polish Army organizational patterns of thinking about safety protocols as I benefitted from viewing another approach to conducting the same training.

In my opinion as a commander and facilitator, safety regulations should not be counterproductive to the training goals, but at the same time they must not be neglected — after all, we are in the business of killing. We need to make sure that our soldiers will be able to get into the fight safely. It was not so easy to take the organizational

Photo by SFC Stuart Sword

(From left to right) NATO paratroopers from Princess Patricia's Canadian Light Infantry, the U.S. Army's 173rd Airborne Brigade, and the Polish 6th Airborne Brigade pose for a photo at the culmination of Charlie Company's combined breaching course in May 2014 at Drawsko-Pomorskie, Poland.

mentality of two different armies and bring them to one common ground. By keeping my mind open, I learned a new approach from Charlie Company leadership, which in some regards appeared to be more effective compared to our domestic regulations.

The breacher course was a significant step forward in this matter as well as a great training opportunity. Unfortunately, this type of training is very rare and limited in scope within our training regimen, making this event even more valuable for my company. Although there were some things we would still do differently on the basis of our own combat experiences, we learned methods in conducting breaching tasks.

We couldn't have conducted combined training without an airborne operation together. Jumping out of U.S. CH-47 helicopters and offering U.S. paratroopers the chance to jump out of Polish C-295 CASA airplanes created strong bonds between the two countries. Jumping the T-11 parachute was a new and different experience than with the Polish AD-95 system. As both systems have benefits and drawbacks depending on the particular drop environment and technical specifications, jumping together was a good opportunity to build a point of reference. Although equipment and aircrafts varied, the procedures we used were virtually the same — the same structure of pre-jump training, behavior inside aircraft, and hand signals were a visible sign of our interoperability for airborne operations.

As I stated earlier, airborne forces build on the deep trust between each other — regardless of the country of origin. Our companies' training was first and foremost a way of providing me and my men with the opportunity to enhance

this trust and establish a common operating framework — a factor of utmost importance if we are to work closely together again in a combat environment. Given that modern combat operations are waged mostly within an alliance framework, our combined exercises with Charlie Company gave me an immense feeling of comfort if we are called on to fight next to each other again in the future.

Notes

[1] North Atlantic Treaty, retrieved October 2014.

[2] Canadian paratroopers from the 3rd Battalion, Princess Patricia's Canadian Light Infantry also deployed to Poland for training in May as part of NATO reassurance measures.

[3] Volker Griesser, *Lions of Carentan* (Havertown, PA: Casemate, 2011).

[4] The 173rd's deployment to Poland and the Baltic states was initially dubbed as "land force assurance exercises" before eventually being named Operation Atlantic Resolve in late June.

[5] N. Diane Smith and Nancy LeBrun, *Sun-Tzu: Art of War,* (Bethesda, MD: Center for the Book. Cronkite Ward Company & Discovery Communications, Inc., 1994).

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FROM CAMEROON TO THE BALTIC STATES:

CHOSEN COMPANY'S PATH TO ATLANTIC RESOLVE

CPT DUSTIN LAWRENCE

The task seemed daunting. With only seven days notice, Chosen Company — an airborne Infantry company of approximately 100 paratroopers with their assigned weapon systems, tactical vehicles, and other equipment — would board U.S. Air Force C-17 aircraft bound for Estonia. The Soldiers would display a united front with their NATO allies in response to Russian aggression in Ukraine.

To even get into the country, there were a number of bureaucratic obstacles to overcome — diplomatic clearances, customs inspections, health readiness exams, and movement requests. Transportation contracts, which would set up expansive logistical lines, needed to be in place. Vehicles had to be serviced, equipment packaged, and sustainment agreements signed.

While monumental, it was not unprecedented. Chosen Company, 2nd Battalion, 503rd Infantry Regiment, is an element of the 173rd Airborne Brigade, a unit that has operated in 10 countries over this past year. The brigade serves as the Army Contingency Response Force (ACRF) in Europe, capable of deploying paratroopers anywhere in the U.S., European, Africa, or Central Command's areas of responsibility within 18 hours.

From the outside, it seems an overwhelming scope of responsibility. From inside, the pace is fast and often frantic. However, the brigade has opened new horizons in terms of combined operations. Chosen Company spearheaded these efforts, beginning with its successive 2014 deployments to Africa and involvement with NATO allies in the Baltic states.

Cameroon

In May 2013, less than a year prior to Chosen's arrival in Estonia, the 173rd Airborne returned from its fourth combat deployment to Afghanistan to its home stations in Italy and Germany. The "Sky Soldiers," as they were named by Nationalist Chinese Soldiers on Taiwan prior to

Soldiers with the 2nd Battalion, 503rd Infantry Regiment, 173rd Infantry Brigade Combat Team (Airborne), wait for the C-130 aircraft prior to conducting airborne operations with Cameroon Army paratroopers during Central Accord 2014 in Cameroon, Africa, on 15 March 2014.

Photo by SPC Coty Kuhn

Vietnam, prepared to assume their new mission combining contingency response with a host of multinational exercises.

The brigade expanded its training footprint across Europe and committed to a number of combined training operations with allied militaries across Europe. In March 2014, Chosen Company participated in Exercise Central Accord 14 in Cameroon, the brigade's first exercise with U.S. Army Africa. This also marked the first time a conventional airborne unit conducted a large-scale training exercise in Africa since 2002 when the brigade conducted a training jump in Tunisia.

On the outset, there were pressing questions. How would the troops move around the country? Who would interpret? However, simple solutions were found. Participants in the operation were transported in Cameroonian military transport trucks and contracted Toyota Hiluxes. French speakers at the battalion were identified and manifested. Interpreters from the Utah Army National Guard's 300th Military Intelligence Brigade (Linguist) also helped bridge the language gap.

In February, the brigade sent a pre-deployment party to Douala, Cameroon's largest city, about a month prior to the airborne operations. Junior officers were given the responsibility of preparing for the arrival of Chosen Company and a robust brigade and battalion headquarters element. They were also given the freedom to make important operational decisions.

While Chosen Company and its higher headquarters were preparing official passports and getting the proper vaccinations, the pre-deployment party was racing across Cameroon to prepare for their comrades' arrival. With their Cameroonian partners, they surveyed drop zones, reconnoitered airfields, received food and medical supplies, and established a footprint for the combined training.

By the time Chosen Company paratroopers arrived for training, the conditions were set. They fell in on established living areas and were ready to train alongside African soldiers from Cameroon, Burundi, Chad, Nigeria, Democratic Republic of Congo, Republic of Congo, and Sao Tome e Príncipe.

To ensure the training was mutually beneficial, exercise planners derived a simple concept involving lane training. The lanes focused on basic unit-level tasks ranging from patrolling and medical response to civil-military operations. The U.S. Soldiers would execute the lane first and then receive feedback from American observers. The African participants followed the paratroopers, applying those lessons learned. By the end of the lane, each party pulled value from the training.

Central Accord culminated with an airborne operation. Cameroonian farmers, vendors, and children gathered around the drop zone and watched as Cameroonian jumpmasters controlled the exiting American and African paratroopers. It was more than a victory for interoperability; it foreshadowed future assignments and showcased the brigade's ability to adapt.

At the same time, Chosen Company and its supporting elements displayed an ability to deploy quickly and effectively.

A Persistent Presence in Estonia

As Central Accord was wrapping up, 2nd Battalion was planning live-fire events in Pocek, Slovenia, alongside allies from the Slovenian armed forces. Chosen Company returned from Cameroon and immediately began preparing for the live fire. On 19 April, 24 hours before their scheduled move to Pocek, there was a change of mission.

The Ukraine crisis was coming to a head. The Russian tactics that won Crimea and fomented unrest in eastern Ukraine caused concern in NATO's eastern-most countries.

"What does this mean for NATO in the future? How do we change our deployment," asked Air Force GEN Philip Breedlove, the NATO Supreme Allied Commander-Europe and commander of U.S. European Command, at a NATO conference in March.[1] "How do we change our readiness? How do we change our force structure such that we can be ready in the future?"

American policy makers were looking to reassure their allies. U.S. global commitment in the region was expanding, but the U.S. military's footprint had decreased in Europe. The drawdown began nearly 20 years ago; however, it had accelerated over the last five. The Army had more than 200,000 Soldiers stationed in Europe when the Berlin Wall came down in 1989; today there are roughly 30,000. The 173rd, Europe's contingency response force, would be the ones to respond.

The initial plans for a U.S. response were drafted. The 173rd would deploy company-sized contingents to link up with allies in their respective host nations — Estonia, Latvia, Lithuania, and Poland. On the ground, their presence would reassure their allies of America's commitment to NATO, and the combined training would strengthen NATO's military capabilities.

Chosen Company landed in Estonia on 28 April. As they marched off the ramp of the Air Force C-130 aircraft, they were greeted by the elite Estonian Scouts Battalion, the U.S. Ambassador, and the president of Estonia. Elsewhere, throughout the Baltic states and Poland, other paratroopers from the brigade lined up with their respective NATO allies. In total, approximately 600 U.S. Soldiers were posted across the NATO front — relatively few compared to the thousands of Russian soldiers just across the border. Still, the impact was felt.

On the tarmac of the Amari Airfield, Estonian President Toomas Hendrik Ilves laid out the value and scope of the combined operation.

"The Trans-Atlantic link is not something Estonians take for granted. Rather we see it as a vital element of security in an unsecured world," Ilves said. "American and Estonian Soldiers exercising here together, raises the visibility of the Trans-Atlantic Alliance — both for people living here and for those living elsewhere. It makes NATO less of an abstraction and reinforces the commitment we all share in the Alliance."[2]

The ceremony marked the beginning of what would be a two-month training deployment for the Chosen paratroopers. It was unlike any other before it.

Chosen Company was in a bureaucratic vacuum. The typical constraints — forecasted land requests, range limitations, suffocating movement requirements — were gone. The leadership's ability to train their Soldiers was

Photo by SPC Jared Sollars

An Estonian Defense Forces Soldier and a paratrooper with C/2-503rd Infantry discuss tactics during a training exercise being held in Tapa, Estonia, on 14 June 2014.

northern pines to create a layered effect that blended them into the wood line.

Both parties drew from the other. The fast, armored Estonian APCs could clear vast areas of countryside. However, advances slowed when the opposing conscripts hunkered down in the forests. This terrain was ideally suited for a light infantry element. After initially sustaining losses from heavy weapons in a contested wood line, the Scouts Battalion headquarters brought forward Chosen Company to clear the area.

CPT Dwayne Steppe, Chosen Company's commander, maneuvered the company through the entrenched enemy.

"We were strict with the force ratio," he later said, referring to the doctrinal rule of employing three Soldiers for every enemy Soldier while conducting offensive operations. "This was a forcing function to task organize our assault force with the APCs. When we maneuvered with this combined element, enemy casualties began to mount."

By the time the event had ended, Chosen Company Soldiers had been in the back of Estonian APCs, tied in with British defensive lines, talked Scouts Battalion mortar fire onto targets, and bounded with Latvian heavy weapons vehicles — all tasks the paratroopers had never trained nor encountered.

After Spring Storm, Chosen Company continued training side by side with the Estonians. Over a period of two months, they planned and executed numerous live-fire maneuver events — events that would have taken months to plan, resource, and execute at home station or other Army training installations.

dependant mostly on the relationship with the Estonian Scouts Battalion. Platoon leaders and the command focused their efforts on partnership with the Estonians and community outreach. The efforts paid dividends.

The first major training event was Exercise Spring Storm, a combined training event with roughly 6,000 troops from Estonia, Denmark, France, Latvia, Lithuania, Poland, and the United Kingdom. Chosen Company, along with both a Latvian and British company and a Lithuanian recon element, was organized under the Estonian Scouts Battalion. The early efforts to partner would play out during the massive training event that matched Estonia's conscripted forces against the Scouts Battalion and these attachments.

Chosen Company, an airborne Infantry company with few organic vehicles, would move along with the mounted Scouts Battalion during the exercise. To keep pace with the fast-moving Estonians in their armored personnel carriers (APCs), Chosen Company's drivers were assigned Mercedes-Benz Unimogs, all-terrain trucks first fielded in 1949. Because their radios weren't compatible, Estonian radio operators embedded in Chosen Company's formation.

The training area spanned miles of residential farmland. Estonian residents watched from their porches or tractors as battles between the conscripts and the combined opposing force played out. F-16s, controlled by joint terminal attack controllers attached to the Estonian conscripts, dropped notional payloads on Chosen Company's eclectic convoy of camouflaged humvees, Land Rovers, and Mercedes trucks. It was the first time the Americans operated in an environment without assumed air superiority.

To confront the notional threat, Chosen Company employed tactics from the Scouts Battalion — experts in camouflaging their vehicles from the air. After observing the Estonian convoys, the paratroopers drew parachute cord around the vehicles and cut foliage from the area's thick

Atlantic Resolve

In July, Chosen Company returned to Italy with the understanding their next deployment would be to Latvia. They would have two months to recover and prepare for the next rotation. The 173rd would maintain control over the Baltic deployments until October. To capture the interoperability and grand scope of the operation, all U.S. military efforts in support of NATO operations were renamed Atlantic Resolve.

"Our ability to respond quickly to reassure our European allies and partners was enabled by our forward-stationed forces and the force structure we have in place now," said GEN Breedlove during a news conference at the Pentagon on 30 June. "We may need to add additional rotational forces to cover the sustained, persistent presence that we are now envisioning."[3]

In mid-August, Chosen paratroopers once again walked off the ramp of the aircraft and into a new operating environment. On the ground, Chosen Company's leadership went to work. The commander tied-in with the Latvian headquarters. Administrative teams worked with the Latvian

logistics officers to bring in food, water, fuel, and ammo. Platoon leaders, with Latvian range control, walked the training grounds, exploring abandoned Soviet-era structures and densely wooded areas for training.

While Chosen Company established their training plan, the brigade prepared for one of its largest training exercises to date — NATO Exercise Steadfast Javelin II. Approximately 6,000 personnel from 17 countries were assigned objectives in Estonia, Lithuania, Latvia, Poland, and Germany. Hundreds of aircraft and tactical and armored vehicles were brought in for the massive undertaking, which would last a little more than a week.

On 5 September, Chosen Company attacked an abandoned logistics hub in Latvia. The decrepit buildings were filled with role-players from the Latvian armed forces and a radar mock-up built outside. The company attacked with blank ammunition and destroyed the mock-up. The success of the attack set the conditions for the decisive operation, a multinational airfield seizure nearly 60 kilometers away.

Later that night, a combined force of approximately 700 paratroopers from the brigade as well as Bulgarian, Canadian, and Italian paratroopers parachuted onto Lielvarde Airfield in Latvia. On the ground, 100 Latvians and U.S. opposing force Soldiers were emplaced to defend the site. As the mock battle raged, Stryker combat vehicles and humvees were air-landed from C-17s to rapidly build up combat power at the airfield.

The airfield seizure and its supporting missions in Poland and the Baltics were only one part of the operation. At the Joint Multinational Readiness Center in Hohenfels, Germany, three additional battalions from the brigade were maneuvering beside their NATO allies under the command of the Lithuanian Iron Wolf Mechanized Brigade. The Iron Wolf Brigade had hosted companies at its facilities in Lithuania since April as part of Atlantic Resolve.

Steadfast Javelin II demonstrated the capabilities of combined forces to conduct such a complex operation. On the various objectives across five countries, combined elements moved in unison to meet a singular end state. This was the case at nearly every echelon during Steadfast Javelin II.

"I've been a NATO Soldier for 34 years" said U.S. Army LTG Benjamin Hodges, commander of NATO Land Command, during the exercise. "And I've never seen the alliance more unified than it looks right now."[4]

Sustained Readiness

Atlantic Resolve continues. On 13 October 2014, the 173rd Airborne Brigade transferred the mission to the 1st Brigade, 1st Cavalry Division. Where airborne operations took center stage during the combined military exercises, Bradley Fighting Vehicles and M1 Abrams tanks now maneuver beside America's allies.

The last of the 173rd redeployed in October. However, given its abilities to rapidly deploy and adapt to new environments, the brigade will likely continue to be at the forefront of the Army's approach on the ever-turbulent international playing field.

"We must sustain readiness and prepare to conduct both expeditionary and enduring campaigns in a wide range of environments," said U.S. Army Chief of Staff GEN Raymond T. Odierno at a European conference in September. "In short, we must be prepared to win in an increasingly complex world."[5]

Notes
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Author's Note: Chosen Company is currently deployed to Ukraine in support of the Operation Fearless Guardian. Sky Soldiers deployed to Ukraine in April 2015. In June, Chosen Company assumed the mission, which focuses on the training of Ukrainian National Guard.

Photo by SSG HollyAnn Nicom

Paratroopers with the C/2-503rd Infantry cross a foot bridge during a training exercise at Adazi Training Area, Latvia, on 15 September 2014.

Training Notes

ADVANCED SITUATIONAL AWARENESS COURSE

INCREASED AWARENESS KEY TO AVOIDING, DEFEATING POTENTIAL THREATS

MAJ (RETIRED) VERN L. TUBBS

Threats to individual security and organizational effectiveness are problems that persist in the complex operating environments we face. The question that must be answered is: *"How do we effectively prepare our force to face these hybrid and insider threats in today's fiscally constrained environment?"*

Training Soldiers to be aware by observing, interpreting, and analyzing the human and environmental terrain in which they conduct operations is a critical aspect of operational security and effectiveness. Increased awareness is the key to a Soldier's capacity to observe effectively, analyze thoroughly, predict accurately, and act decisively to avoid, mitigate, or defeat potential threats.

The U.S. Army's Maneuver Center of Excellence (MCoE) is addressing this need with a unique course called Advanced Situational Awareness (ASA) that trains Soldiers in the art and science of observing humans and their surrounding environment. The ASA course grew from the recognition that Soldiers needed additional training to enhance their awareness, sharpen their mindset, and increase their ability to secure themselves and their units in the complex environments of Iraq, Afghanistan, and even on the home front.

The Threats

Hybrid or asymmetric threats are a diverse, dynamic combination of regular forces, irregular forces, and criminal elements unified to achieve mutually benefitting effects. Hybrid threats will continue to exist no matter if our Soldiers are participating in a counterinsurgency (COIN) operation, a decisive action operation, or simply living their daily lives in the United States while facing threats from terrorist groups like the Islamic State in Iraq and Syria (ISIS).

Insider threats are defined in AR 381-12, *Threat Awareness and Reporting Program*, as "person(s) with placement and access (insider) who intentionally causes loss or degradation (threat) of resources or capabilities, or compromises (threat) the ability of an organization to accomplish its mission through espionage, international

Photos courtesy of author

Role-players interact with a Soldier as part of the Advanced Situational Awareness Course at Fort Benning, Ga.

terrorism, or the unauthorized release or disclosure (threat) of information about the plans and intentions of U.S. military forces."

Insider threats to our individual and unit security have come from within our ranks, as in the case of U.S. Army SGT Hasan K. Akbar, convicted of killing two officers and wounding 14 fellow Soldiers in a grenade fragging incident on 23 March 2003 at Camp Pennsylvania, Kuwait. Another example is the case of MAJ Nidal Malik Hasan who opened fire on 5 November 2009 killing 13 fellow Soldiers and civilians and wounding 32 others at Fort Hood, Texas.

Insider threats have also appeared from within the ranks of our partnered forces over the last several years in both Iraq and Afghanistan. The most recent tragedy is the killing of Army MG Harold Greene and the wounding of more than a dozen others, including a U.S. Army brigadier general and a German general officer, on 5 August 2014 during a key leader engagement at the Marshal Fahim National Defense University, an Afghan training center in Kabul.

Modern Situational Awareness

The roots of modern situational awareness training in the military began with U.S. Marine Corps Gen. James Mattis, who determined that Marines needed a set of skills once embodied by the "hunters-turned-Marines" of former generations. Successful hunters are keenly aware of the details in their surroundings and are alert to unusual environmental changes. Under Gen. Mattis' guidance, the Marine Corps implemented the Combat Hunter program in August 2007.

Although there are similarities to the USMC Combat Hunter program, the Army developed the 50-hour ASA basic course and implemented it in late 2011. The Army has institutionalized ASA in its officer and NCO development courses for our Infantry, Cavalry, and Armor Soldiers, and throughout the training continuum at the MCoE. ASA training supports warrior tasks and battle drills, the Maneuver Leader Development Strategy (MLDS), and ongoing efforts to codify and integrate the human dimension in all we do. The U.S. Army Forces Command (FORSCOM) established the requirement for ASA as part of the solution to the insider threat in Afghanistan in Fiscal Year (FY) 2014 and has included ASA in its regionally aligned forces (RAF) training guidance for FY15.

Adaptive Leaders — Sharpened Mindset

The ASA course has continued to evolve and improve to meet the needs of the Soldier. This latest evolution began in May 2014, with the Army shifting the course to more closely align with the Army Learning Model (ALM) described in TRADOC Pamphlet 525-8-2, *The U.S. Army Learning Concept for 2015*. By decreasing the volume of lectures and slides, implementing more practical exercises, enabling individual learning opportunities through after-class assignments, and broadening the "scenario aperture" beyond an Afghan-centric model to scenarios and looks from different areas around the globe, ASA continues
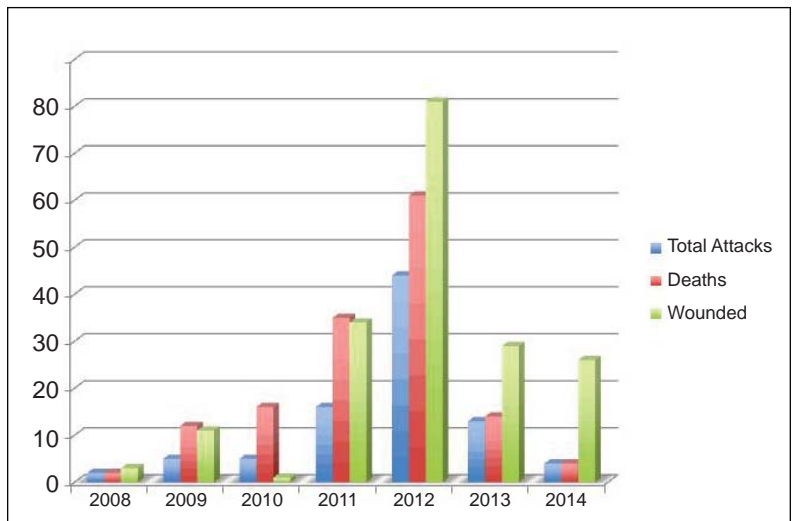

Figure 1 — Green-on-Blue Insider Attacks - Afghanistan

to improve its learner-centric education and training model.

The ASA course develops adaptive, thinking Soldiers and leaders capable of meeting the challenges of operational adaptability in an era of persistent conflict. The course combines the ALM principles of self-development, institutional instruction, and operational experience to deliver an exciting, interactive, "hands-on" course that educates and trains students in a classroom, through numerous practical exercises (keep-in-memory [KIM] games, observation exercises, ground sign awareness [GSA]) and with a complex, interactive, "free-play" outcomes-based field training exercise supported by trained threat emulators.

The ASA course educates and trains Soldiers on the human sensory system (five senses and the brain), the six domains of human behavior (heuristics, autonomics,

An ASA course instructor teaches the three key elements of a footstep as part of "Using Critical Thinking to Interpret Ground Sign Awareness" training.

kinesics, proxemics, geographics, atmospherics), principles of ground sign awareness (human pace, sign recognition), enhanced observation (why we see things, why we don't see things, signatures, and cues), how to establish a baseline (an initial set of critical observations to confirm the norm of an area), critical thinking (problem solving, anomaly detection), decision making (legal/moral/ethical, OODA [observe-orient-decide-act] loop, ASA algorithm), how to think like the enemy, and how to employ this knowledge and experience in order to be "left-of-bang."

Students are evaluated on their teamwork, participation, and effort through all of the practical exercises, their ability to articulate observations and reasoning behind their decisions, and their situational awareness knowledge through a final written exam.

Measuring Benefit to Our Soldiers

It is difficult to quantify the benefit that the ASA education and training has had on the force but numerous mid- and post-deployment after action reviews (AARs) indicate that this training is saving lives. One battalion interviewed in the fall of 2014 while deployed to Afghanistan received ASA training in pre-deployment and insist they have used their ASA skills on a tactical level in numerous situations. Soldiers at all levels (PFC through 1LT) had very positive remarks about the ASA course's overall practical application and stated that ASA better prepared their less-experienced Soldiers for understanding observation techniques while out on patrol, in guardian angel roles, and in conducting entry control procedures (ECP) operations. The more senior leaders (E6 through E7) said the training provided them with a systematic approach to problem solving; one platoon sergeant stated that, "All Soldiers in the Army should attend this course as early as possible." Another NCO stated, "One unintentional side effect of the ASA training was the way it professionalized our younger Soldiers in a way we didn't expect."

Summary

The skills taught by the Army's ASA course require no technology and are low-cost, perception-enhancing abilities that provide Soldiers an ability to predict a threat and act decisively. In the current uncertain and unstable security environment and in a time of fiscal constraint, the affordability of ASA and the unparalleled dividends it pays in survivability and lethality make it a program that should be proactively enhanced and promulgated throughout the force.
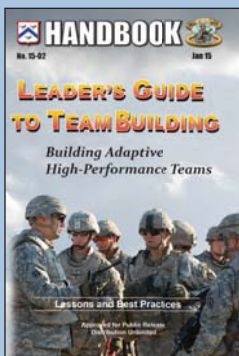
For more information about attending the ASA Basic Course, the ASA Mobile Training Team Course, or the ASA Advanced Master Trainer Course, visit the MCoE ASA webpage at www.benning.army.mil/armor/316thCav/ASA/index.html#ad-image-t2.

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THE VIRTUAL STAFF RIDE:

LEVERAGING SIMULATIONS TO OVERCOME CONSTRAINED RESOURCES

MAJ EDWARD B. LERZ II

The current Army Training Strategy (ATS) states that, "Commanders must mitigate resource limitations through increased use of virtual, constructive, and gaming capabilities." Current fiscal realities are causing Army leaders at all levels to seek out blended live, virtual, constructive, and gaming (LVC&G) training solutions. Utilizing virtual, constructive, and gaming in concert with the traditional live training environment enables accomplishment of training objectives at a fraction of the cost. The focus is taken off of the resource-intensive live training environment when the training audience is spread across the LVC&G spectrum.

Simulation operations officers from Functional Area 57 (FA57), who are assigned at the brigade thru Army Service Component Command (ASCC) echelon, are specifically trained in the use of LVC&G enablers to provide technical solutions for their commander's training requirements. FA57 typically focuses on satisfying unit mission essential task list (METL) requirements and strives to provide the most efficient solutions for maintaining effectiveness in combined arms maneuver (CAM) and wide area security (WAS) operations. However, the cost-saving benefit of technical training solutions can also be called upon to preserve non-essential, team-building training events that fall outside the realm of decisive action and unified land operations. The following case details how virtual and gaming technology enabled the execution of a first-rate staff ride despite limited time and resources.

Training Objectives and Limited Resources

In 2013, while serving at Fort Knox, Ky., with the Human Resources Command (HRC) as the FA57 assignments officer, I was tasked by the chief of the Operations Support Division (OSD) to provide a no-cost virtual solution for a staff ride focused on Morgan's 1863 Raid. The chief's primary training objective was to have the officers of OSD return to the core warfighting functions (WFF) of their various branches and functional areas, which are not exercised in daily HRC operations.

Confederate cavalry commander BG John Hunt Morgan's 1,600 kilometer incursion up through the border state of Kentucky and across the northern states of Indiana and Ohio was intended to create fear within the northern populace. The raid coincided with southern losses at Vicksburg, Gettysburg, and Tullahoma. The disruptive effect of Morgan's raid on northern public opinion forced the Union Army to shift attention to Ohio and Indiana and bought the weakened Confederate Army some time to consolidate and reorganize during this pivotal period. Morgan's crossing of the Ohio
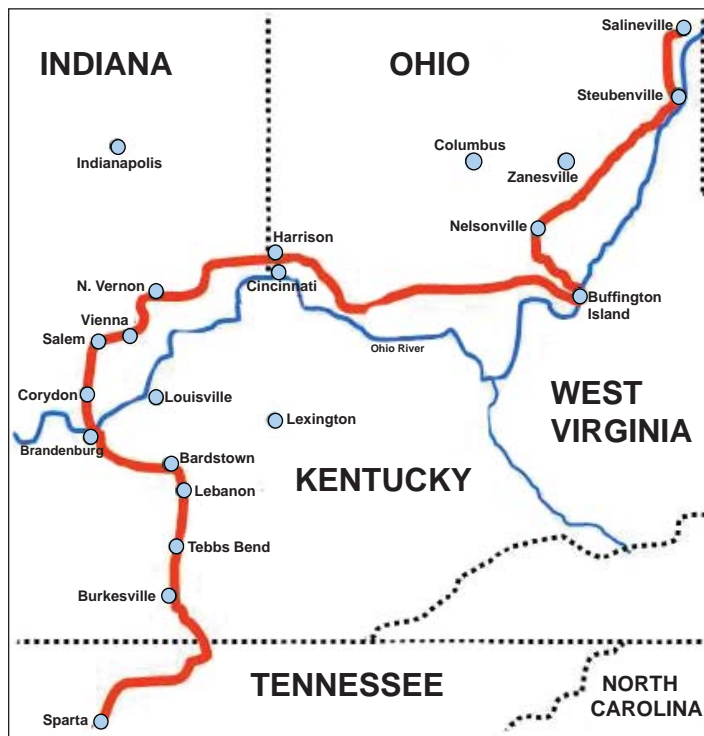

Figure 1 — Route of Morgan's 1863 Raid

River into Indiana and his first significant engagement in northern territory are located in the local Fort Knox area.

While two significant raid events occurred in the vicinity of Fort Knox, key events of the entire route, which originated in middle Tennessee and ended on the Ohio/West Virginia border, needed to be examined to provide strategic context. HRC was not funded to support non-mission essential travel, and human resources mission requirements in OSD limited conduct of the staff ride to two duty days. As the resident simulation operations officer, I was tasked with delivering a technical training solution that would allow staff ride participants to address the 1,600 kilometer 1863 raid route in-depth within the space of two days and without leaving the greater Fort Knox area.

Virtual Staff Ride vs Traditional Staff Ride

According to Center for Military History (CMH) Publication 7-21, *The Staff Ride*, the traditional staff ride consists of three phases. The preliminary study phase prepares the officer for the visit to the site of the selected campaign. A combination of formal classroom and individual study is utilized to prepare staff ride participants in this phase. In the field study phase, participants walk the physical terrain where campaign events occurred, which places the visual

and spatial relationships studied in the preliminary study phase into perspective. It is in the field study phase that participants garner lessons learned by placing the events of the studied campaign into context through the reading of vignettes and by discussing strategic and WFF estimates. The integration phase is where participants are provided the opportunity to organize and articulate their thoughts and lessons learned through the staff ride process. This may be accomplished by means of a structured discussion, after action review (AAR), or publication of relevant findings for use in future staff rides or continued study.

The Combined Arms Center's (CAC) Combat Studies Institute (CSI) states that, "A virtual staff ride (VSR) follows the same methodology as a 'live' or 'field' staff ride, but because travel restrictions preclude a trip to battlefield sites, the terrain is replicated in a virtual environment." In short, the field study phase is conducted at the Mission Training Complex (MTC), utilizing a virtual simulation such as Virtual Battle Space 2 (VBS2), instead of going to the physical location of the studied campaign. To serve as an effective substitute, the virtual terrain must be "geo-specific," or a true three-dimensional representation of the natural and man-made terrain features as they appeared at the time of the campaign. If the physical fidelity of the virtual terrain is high, the participants can gain the first-person perspective without visiting the actual site of the campaign.

The Staff Ride Team at CSI has developed comprehensive VSRs for contemporary Operation Enduring Freedom (OEF)/Operation Iraqi Freedom (OIF) operations such as the March to Baghdad, the Battle of Wanat, and Operation Anaconda. CSI gets more bang for the buck by limiting VSR development to these select few engagements considering the counterinsurgency (COIN)-centric nature of operations over the last decade. Development of geo-specific digital terrain is a labor-intensive process, and it is not economical to expend man-hours in the development of a Civil War raid that would be of use to a narrow training audience.

Additional work is also required to develop models of period weapon systems and vehicles which are not found in VBS2's extensive catalogue of modern weapons and vehicular platforms. It became readily evident that a local solution would be required to execute a VSR of Morgan's Raid.

Morgan's 1863 Raid Virtual Staff Ride Solution

It had already been determined that VBS2 would be utilized to provide the first-person perspective on geo-specific terrain during the field study phase. The Fort Knox MTC possessed the requisite number of VBS2 systems to accommodate all of OSD, and the existing contract at this facility supported the development of the desired geo-specific terrain along the Ohio River Valley. The contractors trained in the use of VBS2's terrain generation tools were located at the Fort Hood MTC, and due to competing III Corps taskings, we were allocated a finite number of contractor man-hours to develop our terrain. In order to stay within this allocation, the OSD chief was required to choose three key engagements along Morgan's raid route. He chose Morgan's Ohio River crossing site at Brandenburg (Ky.), the Battle of Corydon (Ind.), and the raid's culminating Battle of Buffington Island as the three locations for which boxes of "digital dirt" would be developed for VBS2. As indicated earlier, Brandenburg and Corydon are located in the vicinity of Fort Knox. Brandenburg is a key location as it represents Morgan's decision point to cross over into northern territory, and Corydon was the raid's first engagement in the north. Buffington Island was the raid's culminating battle, which occurred on the edge of the Ohio River, just short of West Virginia.

Google Earth was leveraged to place the three key engagements of Brandenburg, Corydon, and Buffington Island into the larger context of Morgan's 1,600 kilometer raid. Google Earth provides a robust set of virtual tools to anyone with access to the Internet. Google Earth is a virtual globe that utilizes space shuttle-collected Digital Elevation Model (DEM) data from NASA to provide accurate 3D imagery of terrain and man-made structures for the entire surface of the earth. Imagery resolution ranging from 2.5 meters to 15 meters per pixel exceeded the level of detail required for our purposes. The *tours* function of Google Earth was used to examine those portions of the raid not addressed in VBS2. This function allows the user to program an overflight route at varying speeds and altitudes ranging from ground level to 800,000 meters above mean sea level (AMSL). It is possible to alter the programmed tours route in progress if the discussion requires this. Additionally, an image overlay function makes it possible to place appropriately sized Mil Std 2525 DoD military symbols and other illustrative images along
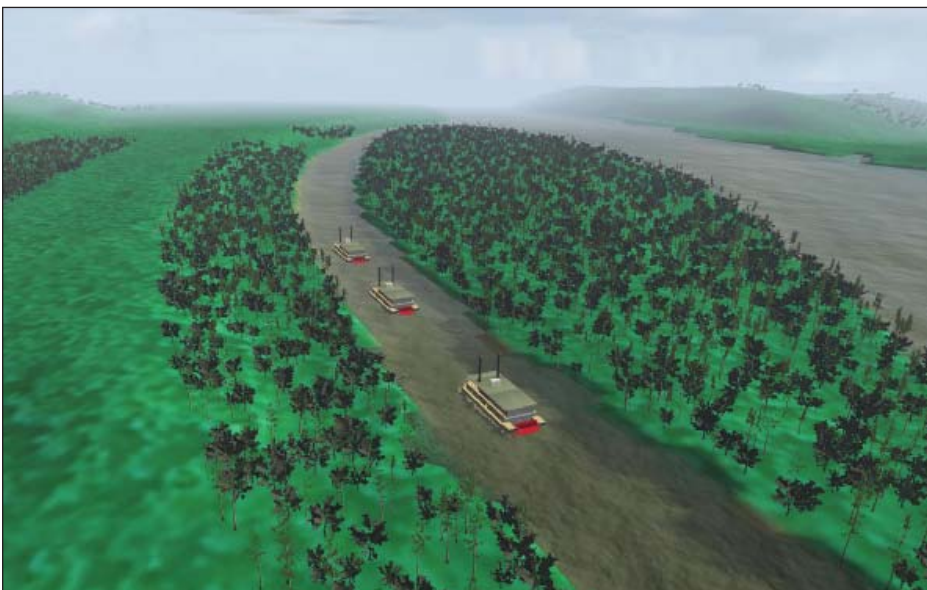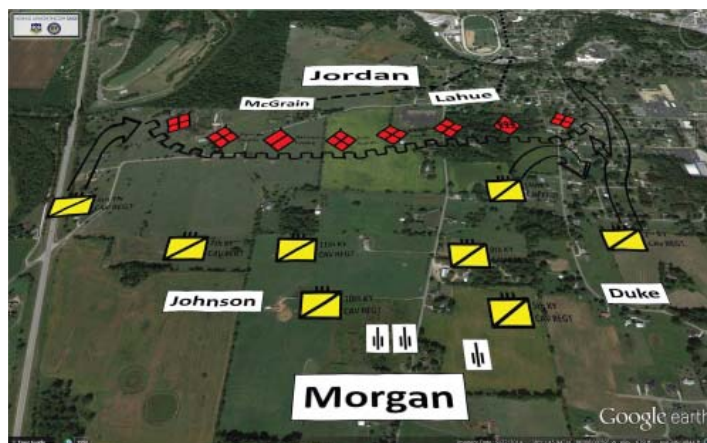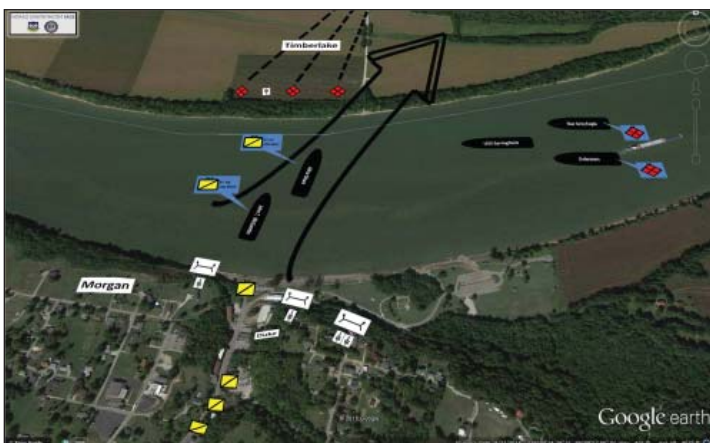

Figure 2 — VBS2 Imagery of Buffington Island Looking North

Figures 3 and 4 — Google Earth (SAGE) Views of the Crossing at Brandenburg (left) and Battle of Corydon (right)

the chosen route for briefing and discussion purposes. Proprietary and Army accreditation issues made it difficult to download Google Earth onto a government laptop without additional coordination through the Fort Knox Network Enterprise Center (NEC). However, it was discovered that Google Earth's free, open-source search analytical and mapping tools were available for use by anyone with a .mil address through the U.S. Northern Command's Situational Awareness Geospatial Enterprise (SAGE). SAGE provides commands within the Department of Defense the ability to access unclassified geospatial mission data via Google Earth network links. After registering for a SAGE account, which took 10 minutes, we were able to access Google Earth from a secure government website. This alleviated proprietary concerns and the need to conduct extraneous coordination with the NEC.

A classroom at the Fort Knox MTC with 50 VBS2 terminals was configured to conduct the field study phase of our VSR. The front of the classroom had a screen on which it was possible to toggle between projection of the view from the master VBS2 system and Google Earth. Each branch within OSD was assigned a portion of the raid and tasked to develop an assessment by WFF during the preliminary study phase, which would be presented during the virtual field study phase.

Simulations are never intended to replace live training but to supplement or enhance it. Therefore, we determined that only the first day of the two-day VSR would be spent in the Fort Knox MTC. The second day would be dedicated to actual field study of Brandenburg Crossing and the Battle of Corydon, which were in close proximity to Fort Knox. While it has been previously discussed that simulations assist primarily with the field study phase in a VSR, in this particular case simulations would also be utilized somewhat in the preliminary study phase. Google Earth and VBS2 would orient participants prior to onsite visits at Brandenburg and Corydon by permitting them to walk and visualize key terrain in a virtual environment while assessing WFFs. The same technical means would be utilized to enable virtual field study of the distant Buffington Island, where resources did not permit an onsite visit.

We started Day 1 of the VSR at the Fort Knox MTC with Google Earth. The tours and overlay functions enabled the training audience to cover the initial raid route from Sparta, Tenn., to the incursion into Indiana at Brandenburg Crossing. This first section of the raid route was flown at 1,000 meters AMSL to gain a sense for the terrain over which Morgan was navigating. The tour route for this portion of the raid was built to zoom in and pause where significant actions had shaped the situation and Morgan's decision to cross at Brandenburg. Graphics applied to the ground with the overlay function aided select OSD personnel in leading discussion. Following discussion driven by an overhead Google Earth view of Brandenburg Crossing, the projector view was toggled over to the master VBS2 view. Following a quick orientation of key terrain and points of interest, each participant was free to walk and visualize the virtual terrain within VBS2. This would serve as both a virtual rehearsal for the onsite visit to Brandenburg and an opportunity to confirm or deny WFF assessments. After a Google Earth fly over and initial discussion of the 10-mile route north to Corydon, we toggled back to VBS2 for a more detailed discussion of the battle within geo-specific virtual terrain. Google Earth was used to study the route from Corydon to Buffington Island in the same manner it had been used to look at Sparta to Brandenburg. We ended our day in the Fort Knox MTC by walking the digital dirt within VBS2 at Buffington Island. Additional time was spent discussing and drawing out lessons learned from this culminating battle as OSD did not have the resources for travel to West Virginia.

Post Execution Assessment

Employment of Google Earth to examine Morgan's three-state raid in-depth and furnish strategic context for the key actions at Brandenburg, Corydon, and Buffington Island worked well. This low-overhead source of accurate and highly detailed 3D terrain permitted variable views of Morgan's entire 1863 raid route that were easily manipulated on the fly to drive discussion. The beauty of Google Earth is that there is no need to build terrain and its use only requires an Internet connection and registration for a SAGE account.

VBS2 was a little more labor intensive as all of the geo-

specific terrain had to be built from scratch by contractors at Fort Hood. Brandenburg, Corydon, and Buffington Island are fairly rural locations that have changed little since 1863. Many of the rural roads and structures still remain, and its continued use in agriculture has preserved natural terrain features. Therefore, it was a little easier to replicate the engagement areas as they appeared in 1863. Most of the coordination for terrain build was conducted over the phone and Internet. By chance, a TDY trip to conduct assignment officer duties at Fort Hood coincided with the end of the terrain-build process, facilitating a face-to-face confirmation of the virtual terrain.

It was discussed during a post-VSR hot-wash that a more controlled use of VBS2 may have improved the focus of discussions. After a quick orientation of key terrain, participants were turned loose to navigate the virtual terrain within VBS2 on their own. After 15 minutes of individual exploration of the terrain, a discussion was conducted. The gaming system became a distraction to the larger discussion of terrain in the context of WFF for many of the participants. A better focus could have been maintained

> "Conducting a combination of live and virtual staff ride allowed us to execute a valuable training event which, due to constrained resources, we would not have been able to do. This event not only accomplished the traditional goals of a staff ride, but also exposed a wide grouping of operational support category officers to the capabilities of their simulation operations officers in future assignments."
>
> **— COL Eric Duke**
> Chief of Operations Support Division, HRC

by moving as a group within VBS2 and stopping at each "stand" for a more comprehensive discussion on each piece of key terrain.

Overall, the use of simulations was effective in accomplishing the OSD chief's staff ride objectives in a resource constrained training environment. The virtual environment provided by Google Earth and VBS2 proved to be an apt surrogate for the live field study phase. The time spent at the Fort Knox MTC also provided the training audience with an additional level of preparation prior to onsite field study at Brandenburg and Corydon.

Photo courtesy of author

Soldiers and civilians with the Operations Support Division of the U.S. Army Human Resources Command conduct the field study phase of the staff ride at Corydon, Ind., on 17 April 2014.

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AIR ASSAULT SCHOOL:

FOUNDATION OF THE AIR ASSAULT NATION

1LT JONATHAN E. REISHER

While the Army transitions to a post-Global War on Terrorism (GWOT) posture, the future structure, funding, and even the list of potential adversaries remain ambiguous as ever. Since "no plan survives first contact," the Army must continue to develop a force that is disciplined, flexible, physically capable, and tactically competent.[1] For this reason, many units across today's Army are developing their own air assault school programs...

UH-60 Black Hawk helicopters from the 5th Battalion, 101st Combat Aviation Brigade transport Soldiers from the 3rd Battalion, 187th Infantry Regiment, 3rd Brigade Combat Team, 101st Airborne Division (Air Assault), during Operation Golden Eagle at Fort Campbell, Ky., on 8 April 8, 2014.

Photo by SSG Joel Salgado

The U.S. Army's use of the helicopter began during the Korean War but came into its own during Vietnam. Leaders utilized the maneuverability of airmobile operations to quickly shift Soldiers and equipment in the rugged topography of Southeast Asia. The Sabalauski Air Assault School (TSAAS) was founded on 31 January 1974 by MG Sydney Berry in response to lessons learned during the Vietnam War.[2] Since then, no other era in the history of our Army has witnessed an increase in the number of air assault school programs like the period since the GWOT.[3] Organizations outside the 101st Airborne Division (Air Assault) contact TSAAS on a regular basis to get their Soldiers, agents, or employees into air assault programs. These organizations include Special Forces Groups, the 160th Special Operations Aviation Regiment (SOAR), National Guard units, Air Force squadrons, and all of the Army's 10 active divisions. This growing interest stems from what the school provides units and their leadership. Air assault operations provide commanders at the tactical and operational levels distinct advantages in unified land operations. Additionally, the air assault school program equips those commanders with capable, disciplined, and fit Soldiers with which to conduct air assault operations.

Photo courtesy of author

Students in the Sabalauski Air Assault School's FRIES/SPIES Master Course conduct FRIES operations. Recon platoons and pathfinders conduct FRIES and SPIES operations in order to increase the versatility of air assault operations.

Air Assault School

Despite age, gender, ethnicity, religion, or any other categorization with which one might identify, graduates of air assault school earn their wings solely by passing the air assault standard.[4] A student is molded and conforms to tough physical and academic standards or they are unquestionably cut from the program. "Trained, disciplined, and physically fit air assault Soldiers" are the required traits of a TSAAS graduate, for these are the traits that win the nation's wars.[5] The school develops these traits during the 10.5 days of instruction and is called the gateway to the 101st Airborne Division because it compels students to achieve the division's physical and technical standards.

A well-trained Soldier provides a unit with enhanced capabilities; for the 101st Airborne Division, it means an entire brigade can be moved in one lift. The division is the only unit in the world capable of conducting a brigade-sized air assault. However, what is often overlooked are the residual effects on the Soldiers who successfully complete the course. Air assault school creates healthy competition and elevates Soldiers who perform at a higher level than the Army's minimum standards. Even the newest privates strive to earn their wings and prove that they belong. Leaders assigned to the division who are not air assault-qualified are required to attend the school — from team leader to the commanding general. The Air Assault Badge represents a goal to be earned: Soldiers at all levels push themselves to prove worthy of being in and leading air assault units. The school provides more than a skill set to the Screaming Eagles; it is also a way to unify and distinguish Soldiers.

Discipline begins with physical fitness, and air assault school is no different. It uses a mixture of physical events to challenge students. Students begin zero day with a two-mile run and an obstacle course, followed the next day by a six-mile road march. The culminating event of the school is a 12-mile road march the morning of graduation.[6] In addition to physical corrective training, a common occurrence at air assault school, TSAAS has also added a two-mile Interceptor Body Armor (IBA) run, a four-mile formation run, and aeromedical physical training. The purpose for the additional training is to push students mentally and physically. Between the physical training, layouts, and the "break and formation procedures," all students receive an education in discipline. Like the newest private, a colonel or sergeant major in the course is treated by the instructor as a roster number. Students hold rank only within the class. Though the periods of instruction and format of air assault school has changed, the program is designed to push all Soldiers attending the course in some way. The composition of the Army may change, but the unforgiving and brutal nature of combat does not. All military training must consider this lesson, particularly after operations in Afghanistan have ceased.

Advantages of Air Assault Operations

A properly executed air assault gives commanders advantages in three warfighting functions: sustainment, fires, and maneuver. Air assault operations allow commanders to apply these capabilities in a cohesive and precise manner. By integrating ground and air assets, combat power can be emplaced directly on an enemy's center of gravity. Further, ground commanders can rapidly shift Soldiers, equipment, and supplies to the portion of the battlefield that requires reinforcement or to exploit success.

Airborne operations have a particular shock value on the enemy, but paratroopers cannot sustain themselves in continuous combat operations without further support. Once on the ground, the light Infantry Soldier only has the equipment, food, and water that can be carried in his rucksack. Although low-cost, low-altitude (LCLA) drops provide a means of resupply for airborne units, they can be costly in the event of miss-drops. Furthermore, rotary wing aircraft can also conduct LCLA drops in support of the air assault Soldier. Using rotary wing aircraft to sling-load supplies and equipment absolves the problem of recovery and the potential of a damaged load. Sling-loading equipment also allows air assault operations to get High Mobility Multipurpose Wheeled Vehicles (HMMWVs), artillery pieces, engineering assets, and other equipment quickly into the fight. For example, a cavalry troop can air assault in CH-47 Chinooks with their fully loaded HMMWVs sling-loaded below. However, air assault-qualified Soldiers are needed to rig, inspect, and plan in order for these sling-load operations to occur.[7] Unlike other light Infantry formations, air assault units are not as restricted by resources because they have a more reliable means of combat support.

Establishment of a forward arming and refueling point (FARP) has been a proven method of resupply that also extends the range of air assault operations. Though often cumbersome in planning, they provide air assault units a consolidated point in which to receive supplies and fuel. Further, there is oversight on resupply operations where officers and senior NCOs can manage the distribution of supplies. A FARP can also serve as a staging point for extended air assault operations beyond a helicopter's normal range. A notable example is Forward Operating Base (FOB) Cobra, part of Operation Desert Rendezvous during the First Gulf War. The 101st Airborne Division's 1st Brigade "Bastogne" air assaulted onto an Iraqi base more than 93 miles behind hostile lines. Once forcibly taken, equipment and supplies were then sling-loaded to the occupied Iraqi post, which was renamed FOB Cobra, in preparation for follow-on operations. The next day, the 3rd Brigade "Rakkasans" used FOB Cobra to resupply their aircraft and conduct an air assault another 62 miles to the Euphrates River. This movement placed Soldiers more than 152 miles behind enemy lines, cutting off elements of the retreating Iraqi army.[8]

Overwhelming firepower and surprise are both hallmarks of the American way of war. The artillery raid has been in use for hundreds of years. First implemented by Napoleon, this method has been used to exploit and expand upon the

> *For the commander of a light Infantry force, the ability to move Soldiers and equipment quickly can be the difference in success or failure. Commanders from company to division level are able to deliver cohesive combat power on a specific target. Armored and motorized units can also achieve this aim. However, these units cannot achieve the same level of surprise and initiative as an air assault operation.*

lethality of the artillery. The air assault artillery raid normally utilizes UH-60 Blackhawks or CH-47 Chinooks to sling-load a M119A2 105mm howitzer or a M777 155mm howitzer platoon to a location that best supports the maneuver element.[9] This small group quickly fires its mission and can reposition itself to another area of support. An artillery raid is self-sustaining for up to 48 hours, during which time it can provide continuous support of advancing Infantry formations. Admittedly, airborne operations can also drop artillery far behind enemy lines, but once staged they cannot be quickly moved. Often the guns are sling-loaded off the area of operations. With organic, flexible indirect fire assets, air assault commanders are able to maintain indirect fire support during a high-tempo combined arms fight.

For the commander of a light Infantry force, the ability to move Soldiers and equipment quickly can be the difference in success or failure. Commanders from company to division level are able to deliver cohesive combat power on a specific target. Armored and motorized units can also achieve this aim. However, these units cannot achieve the same level of surprise and initiative as an air assault operation. Air assault units rapidly move and redeploy Soldiers and equipment to affect the changing, fluid modern battlefield. The ability to conduct operations with both the Fast Rope Insertion/Extraction System (FRIES) and Special Patrol Insertion/Extraction System (SPIES) significantly increases the versatility of an air assault mission. Aircraft are not necessarily hampered by finding areas to land in order to infiltrate or exfiltrate Soldiers. Rather, they can place Infantry forces right on target independent of the surrounding terrain. Also, rotary wing aircraft allow units to move casualties off the battlefield quickly. Moving wounded to a higher level of care increases the likelihood of survival while concurrently freeing the ground unit from caring for the casualty for an extend time. Due to their flexibility and utility, air assaults quickly seize, retain, and exploit the initiative. They also allow air assault units to shift between offensive, defensive, and stability operations.[10] Air assault operations are not the only way to conduct unified land operations, but rather air assault units give commanders the ability to enact this doctrine fully with a light Infantry force.

Conclusion

An air assault division gives the nation a forcible entry capability that is unique to rotary wing aircraft. Air assault school programs are expanding across the Army because commanders need the capabilities that air assault operations provide in addition to a more disciplined, physically fit Soldier. The benefit for the Army is an increased light, combined-arms capability that has advantages in sustainment, fires, and maneuver. As threats change to America, our Army must mold and train a force that can respond accordingly. Air assault school offers the entire Army one more tool to train our Soldiers and organizations to succeed in combat.

Notes

[1] This quote is attributed to General Helmuth von Moltke, the Elder prior to Germany's 1870 invasion of France.

[2] The Airmobile Badge was authorized for local wear by MG Sidney Berry on 1 February 1974 which was the graduation date for the first airmobile class. A copy of this order is displayed at the Sabalauski Air Assault School.

[3] In addition to the school at forts Campbell, Drum (N.Y.), and Benning (Ga.), there are new Air Assault Schools at Fort Bragg (N.C.), Fort Hood (Texas), Fort Bliss (Texas), and at Schofield Barracks (Hawaii, reopened). There has been further discussion about possibly building schools at Fort Lewis, Wash., and at Fort Stewart, Ga.

[4] The question of standards in military schools has continuously been an emotional debate. The issue of changing standards is a topic for another article. The concept that stricter standards create a better result is undisputable fact but one that must be balanced with the unique mission of each school. The fact that air assault school maintains one standard as outlined by the U.S. Army Infantry School reflects the only consideration within a larger dialogue that I consider for my article: Standards are always non-negotiable.

[5] The quote is taken from MG James McConville, commanding general, 101st Airborne Division (AASLT) from August 2011 to June 2014.

[6] Physical requirements for the air assault course can be found in the periods of instruction (POI) approved by the commanding general, 101st Airborne Division (AASLT). This POI is also approved by the U.S. Army Infantry School at Fort Benning.

[7] Sling-loads must be rigged and certified by a Soldier who is E4 or above and an Air Assault, Sling-Load Inspector Certification Course, or Pathfinder graduate.

[8] LTC John Broadrick, "Air Assault Logistics During Desert Storm: A Personal Experience Monograph," (U.S. Army War College), 1993. The initial air assault utilized 370 aircraft that flew 1046 sorties. The second air assault to the Euphrates used 60 CH-47s and 125 UH-60 sorties to move the entire brigade. For the purpose of moving one Infantry brigade at a time, the 101st Airborne Division currently maintains two combat aviation brigades.

[9] 101st Airborne Division Gold Book, Chapter 6, Section I.

[10] ADP 3-0, *Unified Land Operations*, October 2011, 1.

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CH-47F Chinook helicopters from 6th Battalion, 101st Combat Aviation Brigade transport HMMWVs from the 3rd Battalion, 187th Infantry Regiment, 3rd Brigade Combat Team, 101st Airborne Division (Air Assault), during Operation Golden Eagle at Fort Campbell, Ky., on 8 April 2014.

Photo by SSG Joel Salgado

Effectively Engaging Multinational Networks

The JMRC Raptor 14 and Badger AtN Approach

VICTOR R. MORRIS

"We are all in the same boat, in a stormy sea, and we owe each other a terrible loyalty."

— **G.K Chesterton**

In December 2001, the United Nations Security Council established the International Security Assistance Force (ISAF) for combat operations in Afghanistan. During the last 12 and a half years, we have worked extensively with NATO members, NATO member partner states, and other countries during combat operations in Iraq and Afghanistan. We have developed relationships and partnerships that will extend beyond 2014 and have fostered a goal of cultural understanding and military interoperability. The intent of this article is to highlight how the Joint Multinational Readiness Center (JMRC) Badger Counter-Improvised Explosive Device (C-IED) Team (now called Raptor 14 Multinational C-IED Team) facilitates multinational army staff training and interoperability through mutual respect, cooperation, and application of Attack the Network (AtN) fundamentals.

The Badger 11 AtN Team partners with multinational nations in order to enhance overall readiness and combat effectiveness through tailored and expanded staff training. The AtN course focuses on the lethal and non-lethal actions and operations against networks conducted continuously and simultaneously at multiple levels, with an emphasis on the neutralization of IED networks. The operational approach for AtN includes three lines of effort (LOEs): supporting friendly networks (priority effort), influencing neutral networks, and neutralizing threat networks. The best practices and lessons learned outlined in this article are a result of almost three years of AtN,

counterinsurgency (COIN), and company-level intelligence (company intelligence support teams — CoISTs) training in 14 European nations. This article does not discuss the actual AtN program of instruction and curriculum; it outlines the core pillars of AtN and how we apply these concepts to all aspects of training development and execution. The team formally and informally applies these pillars to our mission and interaction with our partners. Our end state is in line with the overall commander's intent to evolve world-class specialty training and prepare for the future.

Understand the Mission: Past, Present, and Future

As we transition out of Afghanistan and shift paradigms, it is important to maintain focus on unified action through connected forces training. Decisive action (offense, defense, and stability) by means of combined arms maneuver and wide area security are not new concepts and must be re-

Photos courtesy of author

Romanian soldiers conduct analysis and all source intelligence fusion to support lethal and nonlethal targeting assessments at a training center in Ramnicu Valcea, Romania.

trained for efficiency and favorable conflict resolution. The majority of the European countries we train have extensive experience in warfare by strategic doctrine (specifically conventional, irregular, joint, and terrorism). In order to better understand and train this pillar, we must have an understanding of host-nation history. Before we train locally or deploy to a country, we conduct an assessment of current or previous conflicts in order to tailor lecture and practical exercise discussion points. For example, for training in Croatia, we studied the Croatian War of Independence or "Homeland War" fought from 1991-1995. We encouraged the students to discuss drivers of instability, overlapping problems of conflict, and the operational environment's conditions required to start a conflict from their country's history. Many of the students are old enough to remember the tactics, techniques, and procedures that were used during the war at various levels. The Homeland War incorporated a variety of warfare to include asymmetric and conventional. This correlation helps students relate doctrinal concepts and provides us with a mutual understanding of their experiences and perspective. We must continue to learn from our partners' experiences of conducting operations in urban environments. These concepts prepare us for future conflicts in urban and highly networked combined environments. Lastly, they set the planning conditions for identifying interoperability focus areas for future training rotations at JMRC.

Understand the Operational Environment: Host-Nation Culture

During training with our multinational partners, we focus on culture as a key social operational variable. This is a key component in understanding and defining the operational environment. It is imperative that we continue to develop a concise understanding of culture as a means to connect. Fortunately for us, we live in Germany and are exposed to European culture daily. We apply an understanding of customs, dress, religious beliefs, and traditions as our primary cultural elements at home station and abroad. The idea of understanding culture has always been a core tenet in partnership and must be deliberately applied and executed during all training events. During our initial mission coordination, we receive guidance from our host-nation counterpart with regard to training day scheduling, holidays, meal times, and local events. This specific coordination allows us to modify or adjust the training schedule as needed prior to arrival. We are able to accommodate and are typically included in national holiday events and celebrations. Finally, the majority of the team enjoys trying traditional meals and never turns down a bowl of Ciorba (Romania) or Saltibarsciai (Lithuania).
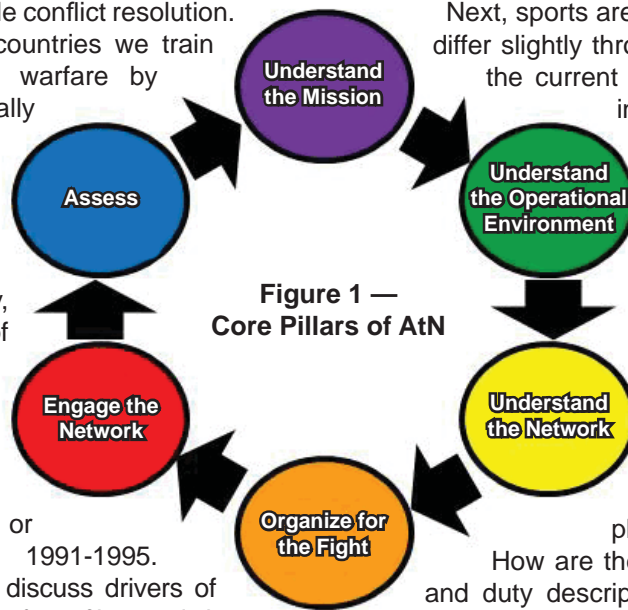

Figure 1 —
Core Pillars of AtN

Next, sports are a very large element of culture and differ slightly throughout Europe. We typically follow the current sporting events in the country and incorporate some of those references into our lectures. For example, Lithuanians follow basketball more than football (soccer) and have a proficient understanding and ability playing the sport. We use basketball-related analogies during the course lectures and practical exercises in Lithuania. An example from the network class is as follows: What environment is conducive to playing basketball? What conditions allow the team to play? Is a basketball team a network? How are they composed? What are their roles and duty descriptions? What must the point guard do in order for the team to win the game? Hockey is extremely popular in the Czech Republic while football reigns supreme in Germany and many other countries. With that being said, football examples are used where applicable during the measures of performance (MOP) and effectiveness (MOE) course to reinforce understanding of task accomplishment and progress measurement.

Additionally, we continue to make concerted efforts to remain unbiased and not to inundate our partners with U.S. military culture. Many of our students have interacted with Americans on a variety of occasions and are familiar with customs and courtesies. This notion is especially important during classroom instruction. We refrain from the use of U.S. military slang and idioms. They do not translate well and cause more confusion than clarification. Terms like "get in the weeds," "meat and potatoes," and "nuts and bolts" are avoided for clarity of instruction and understanding. Lastly, it is important be cognizant of the speed, pattern, and accent of our speech. If an interpreter is required, we coordinate prior to mission execution to ensure time for course material translation, review, and rehearsal. The latter point seems obvious, but it is important to meet and develop a rapport with the interpreter prior to executing training. They can easily identify areas or topics that may cause friction and misunderstanding.

Lastly, a basic attempt at learning and applying the host-nation language goes a long way in forging bonds and connecting. In some cases, it is not the fact that you can say the words or phrases correctly, but the fact that you understand the importance of trying and being heard.

Understand the Network: Host-Nation Military Organizations, Leaders, and Soldiers

In order to provide country or theater-specific AtN training, we must have an understanding of host-nation military network components and characteristics (composition and structure). Many European militaries are re-structuring because they have identified the future state from recent

Lithuanian soldiers conduct human network analysis during an AtN course at a training center in Rukla, Lithuania.

> *Lastly, a basic attempt at learning and applying the host-nation language goes a long way in forging bonds and connecting. In some cases, it is not the fact that you can say the words or phrases correctly, but the fact that you understand the importance of trying and being heard.*

combat and peacekeeping operations. Before, during, and after our missions, we are constantly assessing military network concepts in order to identify gaps and requirements for future training events. We have found that some European countries have more robust intelligence, engineer, explosive ordnance detachment (EOD), or special operations networks in their overall formation. Bulgaria, for example, sent a specialized police force to an AtN course and we were able to leverage their experience during network template analysis, narcotics trafficking, and lethal targeting. Based on real-world threats and network composition, we have chosen to improve our scenario's criminal networks and infrastructure subsystems for future training events. The concepts of emerging hybridity are important as we conduct human and specific sub-system analysis in future irregular conflicts. We must first understand ourselves before understanding asymmetric threats combining traditional, irregular, and criminal tactics. The broad concepts of social-network analysis can also be applied and refined during all aspects of friendly training and operations.

Next, friendly and partner network analysis and engagement can be extended to the "nodes" or actual people. Initially, we meet with the host-nation commander and senior NCO prior to the course and receive guidance and mentorship. Oftentimes, the command team includes a senior officer and NCO who have completed a variety of NATO and U.S. Army professional military education. They are well versed in counterinsurgency operations and are very active during the course. They highlight the strengths and weaknesses of their formations and overall training

objectives. The interactions with the host-nation command team are instrumental in mission success and strengthening future relationships.

Finally, it is important to leverage the officers and NCOs who have completed U.S. or NATO training (general purpose forces [GPF] and special operations forces [SOF]). They typically want to showcase their experience and can be great motivators for the rest of the class. They may also interpret the intricate concepts involved in intelligence analysis and targeting. The same can be said for Soldiers who have deployed on various missions before (combat or peacekeeping operations). It is important to engage them and solicit their responses and insight during lectures and practical exercises. We encourage debate during the course based on a variety of perspectives and experiences. We also encourage the students to express themselves in their native language if they are having difficulty in English. On-the-spot interpretation can be done with little to no issue. It is imperative that we share perceptions and interpretations in order to develop viable courses of action during future working groups. We are not always right, and there is not always a clear-cut answer.

Organize for the Fight: Training Audience Selection

The application of this pillar to our partners involves the identification, organization, and direction of resources needed to complete the mission. Initially, all parties involved need to understand classification measures and maintain approved and releasable programs of instruction (POIs). Concise coordination with the appropriate foreign disclosure officer (FDO) is crucial to training success. Next, in order to conduct a successful training event, the proper audience must be in attendance. In order to conduct a successful AtN course where the students receive a course completion certificate, the proper audience has to be identified and resourced during initial mission planning. As course instructors, we coordinate directly with the host-nation liaison or sponsor to outline student language ability, demographics, rank, duty position, and any prior related training. Students who have attended the NATO C-IED Staff Officer Awareness Course (SOAC) typically bring a concise understanding of C-IED pillars and understanding of lethal and non-lethal network engagement.

It is important to note that students may come from various

units throughout the country to train collectively during the course. There may be personnel from the same unit or even the same staff, but we rarely get an organic staff that has cohesion based on their working relationship. Below are some of the core competencies and prerequisites for host-nation staff personnel attending Badger 11 Team courses:

• Expert/near native English-speaking ability and knowledge of U.S./NATO doctrinal military terms and concepts.

• Brigade and/or battalion staff-level experience; current company level not excluded.

• Formal training in the military decision-making process (MDMP) and the targeting cycle.

• Prior combat deployment experience is encouraged but not mandatory.

• Academy cadets are welcomed based on their existing professional ability and future training and assignment projection.

AtN is a staff training course where the staff collectively supports targeting, so we recommend a broad sample of students from all battalion and/or brigade staff sections. The focus is predominantly on the S2 and S3 sections but includes the other sections for coordination and working group execution. The staff collaboration creates varied perspectives, shared understanding, and unity of effort. All staff sections must work together in order to meet the commander's intent and successfully complete the mission. Lastly, organizing for the fight means assessing and incorporating both U.S. military and NATO C-IED doctrine into the training. It is imperative that we remain current and adaptive with the emerging doctrinal changes and updates.

Engage the Network: Execute Training

The Badger Team supports friendly networks through training that focuses on sustaining the partnerships and the interoperability we have achieved during the last 12 years of war. We seek to leave an impression on our partners and the tools required to continue training when we are gone. One of the best initiatives that we developed with our multinational partners was an AtN train-the-trainer (T3) program in Lithuania. It takes time to officially certify the entire POI, but selected classes can be approved for follow-on organic training.

The training may overlap with training that the unit is already conducting and serve as a review of fundamentals and key concepts. This is an enduring mission component and part of our sustained partnered capacity building.

Assess: Students, Instructors and POI

During and post-course after action reviews (AARs) are instrumental in identifying training gaps or lack of relevancy in certain subject areas. During a Romanian mission rehearsal exercise (MRE), we assessed the need to update various intelligence tools based on the staff execution of their targeting cycle during their rotation after the AtN course. Their methods were in line with doctrine and recent Operation Enduring Freedom (OEF) deployment standard operating procedures (SOPs) in Regional Command-South. We updated these products in November 2013 in order to support Romanian training events in the spring of 2014. The feedback that we receive from our partners is paramount for the AAR and improvement process. We receive a variety of course feedback both formally and informally. We conclude the course with a student-led briefing and 20-question exam that gives us immediate feedback. The students also complete a course evaluation sheet and list sustains and improves for the overall course material. At the end of the day, all of this feedback is incorporated into the next training event for continued improvement and host-nation training support. Finally, assessment means conducting analysis of current events and changes in the contemporary operational environment for implementation into future training.

In conclusion, the AtN principles and NATO C-IED doctrine can be applied to a myriad of operations as the foundation of critical analysis for systems and human engagement. The abilities, proficiency, and overwhelming hospitality of our partners continue to impress and motivate us. We try to live what we teach by applying these fundamentals to our core mission of training multinational staff sections. Our goal is to continue building enduring partnerships which allows access, opportunity, and cohesion for the future.

Civilian and military organizations share intelligence as part of a comprehensive approach to human network analysis and support to targeting.

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UNDERSTANDING GPS:

THE IMPORTANCE OF A MILITARY RECEIVER IN A GPS-CONTESTED ENVIRONMENT

MAJ RUSSELL NOWELS
MAJ MATTHEW FECHTER

Photo by Markus Rauchenberger

The global positioning system (GPS) is a space-based satellite navigation system that is deeply integrated into the U.S. military. More precisely, the military is critically dependent on the GPS satellite system due to its ability to provide three-dimensional positioning, navigation, and timing (PNT) information for countless military systems. Comprised of 24 satellites (with on-orbit spares available), the GPS constellation provides a number of advantages to include accurate and efficient navigation information, positioning data for the precise deployment of guided munitions, and the timing signal that synchronizes both space and ground-based communications and computer systems. The heavy reliance on PNT services means that it is an increasingly critical consideration during mission planning and execution.

As a result, Army staffs, units, and individual users must understand the vulnerabilities associated with their GPS and its aided systems. Current combat operations in the Central Command area of responsibility (AOR), as well as potential combat operations in the European Command AOR and the Pacific Command AOR, have adversaries who possess GPS-denial equipment which could degrade or deny basic GPS services to our forces. Due to the proliferation of the GPS-denial equipment, Soldiers must appreciate the advantages of properly using their assigned military-grade GPS (such as the Defense Advanced GPS Receiver — DAGR) as opposed to commercial systems to guarantee they are receiving the most accurate data while simultaneously mitigating adversary attempts to degrade or deny this capability.

Increased Use and Reliance on Civilian GPS Systems

At the start of combat operations in 2001, the U.S. Air Force leveraged the GPS positioning capabilities to guide precision munition strikes from aircraft miles above the battlefield. Likewise, land forces used the GPS navigation capability to efficiently move through challenging environmental terrain, conditions, and congested urban areas. Additionally, all forces enjoyed the benefit of the precise timing signal that enabled synchronized battlefield communications as well as the ability to command and control forces through the friendly forces tracking (FFT) system across vast space and distances. These simple examples are just a few of the many capabilities enabled or assisted by GPS functions.

Standard military-grade GPS systems were used by the bulk of the forces during the initial combat operations in Afghanistan and Iraq. The success of these systems created a demand for more GPS navigation aids, especially as the number of dismounted operations inherent in counterinsurgency and stability operations grew. In fact, many units (especially mechanized organizations) did not possess adequate GPS receivers to enable simultaneous mounted and dismounted operations. As a result, Soldiers sought to address this capability gap by purchasing inexpensive civilian GPS receivers. These commercial GPS receivers, like those made by Garmin and Magellan, became even more appealing to Soldiers because they were smaller, lighter weight, relatively inexpensive, and far easier to use and understand than the equivalent military system. Gradually, the use of civilian GPS devices by ground forces increased to the point that many organizations were purchasing the devices for use in combat environments.

The increased use of commercial GPS systems exposed the shortcomings of the common Army GPS system, the DAGR. Specifically, the DAGR is comparatively challenging to operate because it is not functionally intuitive or easily accessible. Additionally, many DAGRs are tied to vehicle platforms, which results in Soldiers going through the hassle of disconnecting them for dismounted operations. Further, DAGRs are heavier and cannot be easily carried in a quickly accessible position like the Garmin wrist devices. These challenges drove Soldiers away from the issued military receiver in favor of the increasingly user friendly and more affordable commercial systems.

GPS Threat Basics

Two primary GPS threats exist that inhibit proper system function: jamming and spoofing — both are referred to as electronic attacks. Jamming is the emission of a signal powerful enough to bump the GPS signal from a user's receiver. Once the receiver loses its GPS signal, the jamming signal is strong enough to prevent the user from re-acquiring the proper signal. The degraded GPS environment caused by the jamming signal prevents the receiver from displaying any type of relevant data. Spoofing is the transmission of false signals that result in a GPS receiver tracking the incorrect signal and reporting a position controlled by the spoofing source. Since spoofing affects the accuracy of PNT, these signals negatively impact the maneuver forces and weapons targeting effectiveness. The potential outcome of a spoofing threat is significant since a user may not know that incorrect data is being generated and displayed. Ultimately, spoofing is responsible for erroneous navigation or inaccurate use of precision-guided munitions.

Electronic Attack Examples

Jamming scenario: 1st Platoon is navigating across the open desert at the National Training Center (NTC) at Fort Irwin, Calif., when all the GPS receivers within the platoon suddenly freeze, display a warning for a "Jamming Environment Detected," or go blank. This is likely the effect of GPS jamming. The GPS receiver is now ineffective due to the powerful jamming signal, which prevents the GPS receiver from acquiring the actual GPS signal. Time to pull out the map and compass!

Spoofing scenario: 2nd Platoon is responsible for establishing a support-by-fire (SBF) position during a night mission at NTC. The platoon follows their pre-determined GPS route directly to the assigned position and begins to establish its position at the exact grid coordinates. As dawn begins to break, the platoon leader uses his map and terrain association to determine that his platoon is established on the objective despite correct coordinates displayed on his GPS receiver. The platoon has been spoofed!

The Value of the DAGR in Future Environments

The DAGR offers protection in a GPS-contested environment that makes it far superior to its commercial equivalent. As such, Soldiers must get comfortable using a military receiver in future conflicts and contingencies. Our adversaries are aware that GPS-aided systems provided a marked advantage that contributed directly to tactical success in Afghanistan and Iraq. These adversaries intend to minimize this GPS advantage in the next conflict by contesting the military's assured access to the GPS signal. This intent is progressively realistic as the proliferation of GPS-denial equipment provides both nation states and non-state actors the means to execute this plan.

In future GPS-contested environments, commercial receivers will lose their lock on the GPS signal and not function properly; however, a DAGR combats the effects of electronic attacks through the Selective Availability Anti-Spoofing Module (SAASM), which accesses the P(Y) code and is only present in a properly keyed, military-grade GPS receiver. The anti-spoof P(Y) code was developed to encrypt the military signal, a separate signal from the GPS satellite that commercial receivers cannot use. This makes it more difficult to degrade or deny when used with a keyed DAGR because the military signal requires authentication from the receiver. This military signal is broadcast on two frequencies from the satellites while the commercial signal is only broadcast on one. This encrypted signal and the use of two frequencies offer greater resistance to adversary electronic attack.

Unfortunately, the civilian receivers carried by many Soldiers lack the encryption capability to authenticate the P(Y) GPS signals. This means that the civilian GPS receivers are more susceptible to electronic attack of the GPS signal. Simply put, a properly keyed DAGR has a greater resistance to an adversary's electronic attacks than the commercial GPS devices, which will more easily lose the ability to track satellites and thus give an accurate position to the user.

Conclusion

GPS services provide a combat-multiplying capability to the Army; however, assured access to the GPS signal is no longer automatic. Adversaries now possess the ability to degrade or deny the signal that enables our GPS advantages, especially when our troops use a commercial receiver. In the GPS-contested environments posed on future battlefields, Soldiers must transition their confidence from commercial receivers to the DAGR or other military-grade receivers.

Relying on civilian-purchased GPS receivers will make units vulnerable to the loss of GPS services by electronic attack. To ensure the use of these services, unit leadership must ensure that commercial GPS systems are used only for redundancy and never in place of a keyed military-grade GPS receiver. In addition, unit leadership must ensure that the military-grade GPS receivers they used are keyed in order to access the P(Y) code. A military receiver without a current key has no greater protection from enemy electronic attacks than a commercial receiver. Finally, Soldiers must continue to train in non-GPS-related land navigation techniques and use those skills to continuously monitor the DAGR position and cross reference with a map. This technique mitigates the potential effects of GPS electronic attack. In summary, a keyed military-grade GPS receiver and proficient land navigation skills are absolutely critical to the movement and maneuver of military forces on the battlefields of the future.

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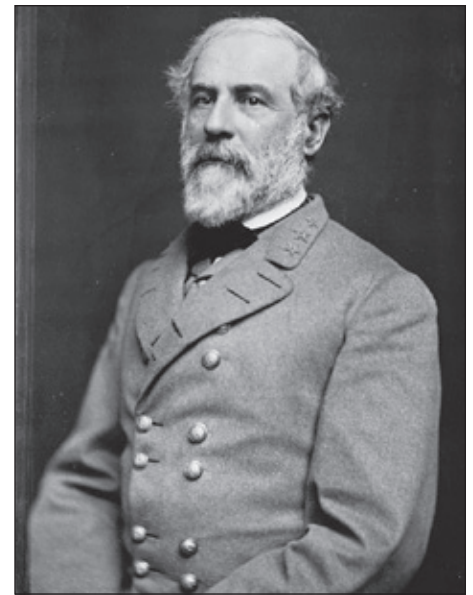
Chancellorsville, May 1863

Lee Uses Audacity, Surprise to Defeat Union Forces

CPT MARGARET C. HARRIS

Before May 1863, Chancellorsville, Va., was little more than an intersection on the way to Fredericksburg. Today, the area is renowned as the site of what many historians call GEN Robert E. Lee's "greatest victory."[1] At the formerly sleepy crossroads, Lee's dedicated but severely outmatched Army of Northern Virginia clashed with MG "Fighting Joe" Hooker's well-supplied yet troubled Army of the Potomac in a spectacular display of Lee's tactical brilliance. Lee's success at Chancellorsville, while unlikely given the conditions, is not inexplicable. Through expert application of the offensive characteristics of **audacity** and **surprise**, Lee's outnumbered force was able to defeat the Army of the Potomac at Chancellorsville on 1-4 May 1863.

Photos courtesy of the Library of Congress Prints and Photographs Division

MG Joseph Hooker   **GEN Robert E. Lee**

Background

The Civil War had raged for more than two years by the time the two armies clashed at Chancellorsville. During this period, the two armies met multiple times in heavy fighting. The Army of Northern Virginia proved itself a worthy opponent and prevented the Army of the Potomac from achieving any decisive victories on the battlefield.[2] The northern public quickly tired of consistent battlefield failures, and political divisions over the war split support in the northern states.[3] Even the slim victory at Antietam and the revelation of the Emancipation Proclamation had only a mixed impact on the North's morale.[4] Lincoln knew he needed to defeat the Army of Northern Virginia and was desperate to find the general who could lead the Union to victory.

Conversely, the Confederates, although successful on the battlefield, were beginning to feel the logistical strain of the prolonged conflict. Lee knew that his army and the Confederacy as a whole could not outlast the Union in a war of attrition. Any hope for success was hinged upon fighting quickly and aggressively and forcing the Union into negotiations.[5]

It was under these circumstances that the two armies met again in December 1862 in Fredericksburg, Va. The engagement was another Union defeat, and the Army of the Potomac suffered staggering casualties in an ill-conceived frontal assault on the Confederates' defensive position before withdrawing across the Rappahannock.[6] Fredericksburg was crucial in setting the stage for Chancellorsville just months later. After the Union Army's withdrawal, both sides settled into winter quarters in the area (the Union across the Rappahannock to the east and the Confederates behind the high ground to the west).[7] Over the winter Lee continued to improve his army's strong defensive position on the heights and turned his attention to resupplying his troops.[8] With food and ammunition in short supply and the surrounding countryside heavily depleted, Lee dispatched LTG James Longstreet and two divisions east in late February to forage and screen against a possible attack.[9] This degradation to his overall strength would exacerbate the already heavily skewed Union numerical advantage at Chancellorsville. The Union Army's failure at Fredericksburg prompted Lincoln to

replace MG Ambrose Burnside with Hooker.[10] Hooker, a brash self-promoter but adept organizer, utilized the remainder of the winter to restructure and refit the Army of the Potomac.[11]
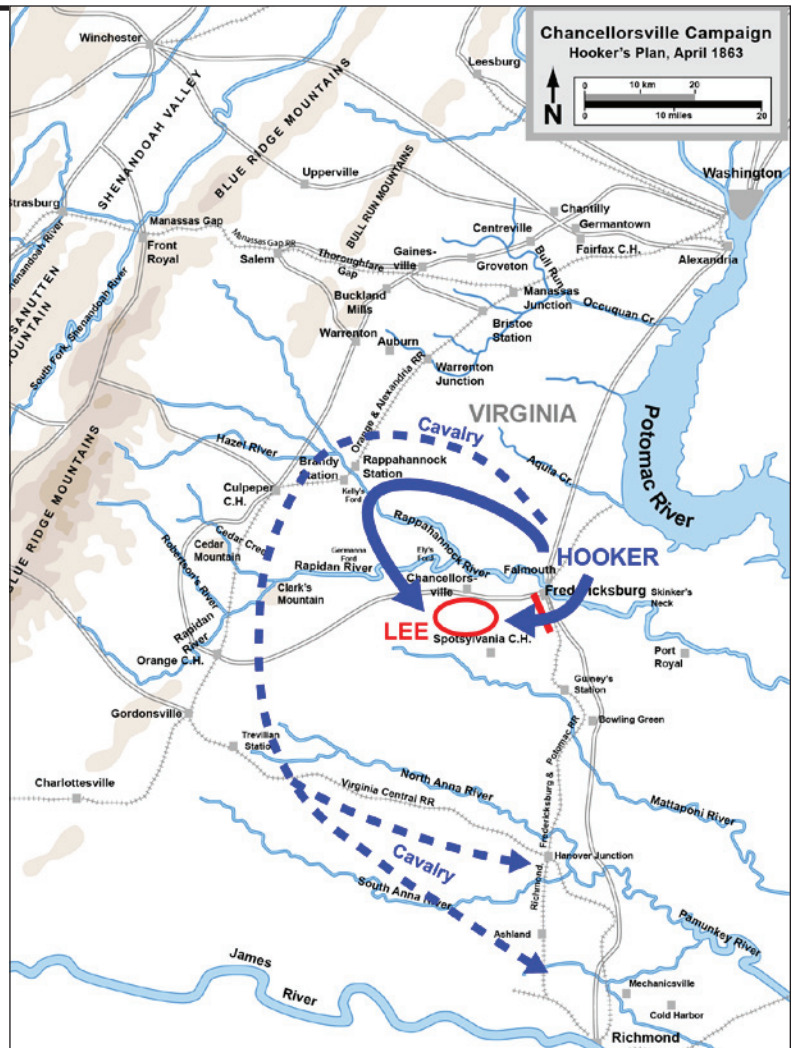
Hooker's Plan

By March of 1863, the Union Army was once again in fighting shape, and by late April Hooker formulated and distributed his plan of attack. He settled on a grand double envelopment. The Army of the Potomac would split into two "wings." The right wing consisting of four infantry corps would cross the Rappahannock at ford sites north of Fredericksburg and march to the crossroads known as Chancellorsville before moving southeast to flank Lee's army. The left wing, under the command of MG John Sedgwick, consisted of the I, II, and VI Corps and would hold opposite Fredericksburg to fix as much of Lee's army as possible. This would allow the two "wings" to crush Lee's army between them. These movements would be supported by a preparatory cavalry strike conducted two weeks in advance of the main attack by the newly reconstituted Union Cavalry Regiment (see Map 1). Under the command of BG George Stoneman, the regiment would cut Lee's lines of communication to Richmond.[12]

Whether by arrogance or oversight, Hooker determined that this plan left Lee no choice but to "ingloriously fly," finally giving the Union Army the decisive victory it so desperately craved.[13] Confident that his attack would succeed, Hooker remarked, "I have the finest army the sun every shone on. My plans are perfect, and when I start to carry them out, may God have mercy on General Lee, for I will have none!"[14]

The Battle of Chancellorsville

The plan was set in motion on 13 April 1863 when Hooker dispatched Stoneman and the Union cavalry. After moving just 25 miles, weather prevented the cavalry from crossing the Rappahannock, an inauspicious beginning to Hooker's assault.[15] Weather continued to delay Hooker's plans, and the first of the three corps in the right wing of his attack began movement across the Rappahannock on 28 April. Movement continued for two days with all elements of the wing in place by the early morning hours of 30 April.[16]

At receiving word of the first of these movements, Lee believed that Union force to his north was a diversion.[17] Lee knew that his positions near Fredericksburg, anchored by MG Stonewall Jackson's II Corps, were strong; another Union assault there would be no more successful than the first two. However, as more information came in from MG J.E.B. Stuart's Confederate cavalry specifying the size and location of the Union forces, Lee realized this initial conclusion was wrong. The enemy force to the west was not a diversion but rather the principal threat intent on flanking his force from the rear. A careful examination of the map revealed the Chancellorsville crossroads as the most likely

Map by Hal Jespersen, www.cwmaps.com

Map 1 — Hooker's Plan

launching point for Hooker's assault, and Lee began to move his forces to counter this threat.[18] On 29 April, Lee ordered the 1st Division, I Corps — commanded by MG Richard Anderson — to move from its position guarding the fords north of Fredericksburg west towards the Chancellorsville crossroads to stem Hooker's eastern movements and augmented him with the Confederate artillery. He then directed MG Lafayette McLaws, commander of 2nd Division, I Corps, to move from his defensive position south of Fredericksburg to join Anderson to the west. This divided Lee's already outnumbered army and left only Jubal Early's 3rd Division of Jackson's II Corps to defend against what Lee now believed to be the Union diversion force across the river from Fredericksburg. Lee also ordered Stuart to rejoin the main army immediately for fear that they would be separated by the Union attack.[19] Lee immediately sent word to Longstreet calling for his return. Lee would need all the strength he could muster to counter Hooker's strong assault.[20]

As Lee was beginning to understand Hooker's intentions, the Union Army continued executing its plan. Following the successful crossing at Elys Ford, MG George G. Meade marched his V Corps southeast to the Chancellorsville crossroads, arriving at the Chancellor House around mid-

Graphic courtesy of the Library of Congress Prints and Photographs Division

A sketch depicts the right wing of Hooker's army crossing the Rappahannock at Kelly's Ford.

day on 30 April.[21] Within hours the remainder of the right wing of the Union force descended on the crossroads, and the corps commanders — excited at the prospect of finally having the advantage over Lee — conferred.[22] This excitement was short-lived as early in the afternoon of 30 April the commanders received word from Hooker that "no advance be made from Chancellorsville" until the II and III Corps arrived to further augment the force.[23] Instead of pressing the Union advantage, the right wing of Hooker's

attack remained in position at the Chancellorsville crossroads until morning.[24]

While Hooker's momentum was slowing, Lee's began to rise. Reports from the west and his own observations of the Union line near Fredericksburg solidified his opinion; the main attack would come through Chancellorsville.[25] After conferring briefly with Jackson, Lee decided to drastically divide his force to support the defenses in the vicinity of Chancellorsville. With the exception of William Barksdale's Mississippi Brigade in the town of Fredericksburg and Jubal Early's division arrayed directly opposite of the Union encampment, Lee ordered Jackson's II Corps to march north to join Anderson's defensive line. Rather than retreat under the Union advance, Lee postured himself for a fight.[26]

Jackson and his men marched early on 1 May and arrived at Anderson's defensive position by mid-morning. Lee had implicit trust in his battle-hardened subordinate commander and gave Jackson orders simply to "make arrangements to repulse the enemy."[27] Jackson, as offensively minded as Lee, judged the best course was to seize the initiative and attack. He gave the order to advance around 1030 on 1 May

Map 2 — Battle of Chancellorsville, Actions on 1 May 1863
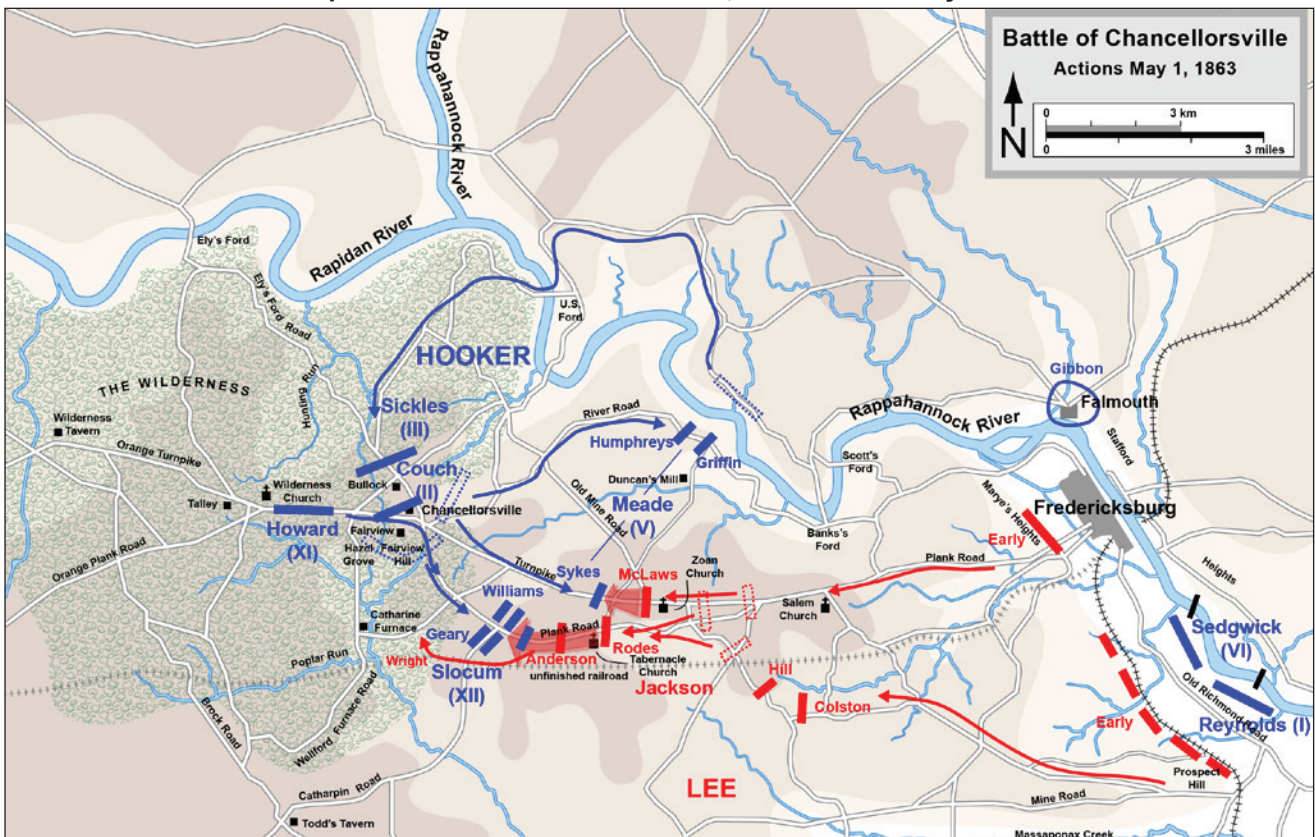
Map by Hal Jespersen, www.cwmaps.com

and moved toward Chancellorsville up Orange Plank Road and the Orange Turnpike.[28] Just miles away, Hooker (and the Union Army) was unaware of Jackson's bold advance. Satisfied that his force was moving well and that the reports he received of Lee's forces moving from their defensive lines near Fredericksburg indicated a retreat, Hooker unhurriedly issued his next orders. Hooker directed Sedgwick to make a feint toward crossing at Fredericksburg around 1300 to draw Lee's attention back south. He directed Meade to move toward Bank's Ford along River Road to secure the area for the future true crossing of Sedgwick while the remaining three corps would move along Orange Plank Road and Orange Turnpike toward the reported Confederate position near Tabernacle Church.[29] These two roads were separated by just one mile at their farthest point; however, the terrain between them was dense woods. While mutual support was possible, movements through the "wilderness" were neither easy nor quick. Synchronization of effort would prove to be a challenge in such terrain.[30]

The two armies met around 1115 when skirmishers from Jackson's lead brigade on the Orange Turnpike collided with pickets of the Union cavalry. Both sides quickly brought up artillery to support the engagement, and MG George Sykes advanced his troops, slowing pushing the Confederates back down the turnpike. Around 1230 Sykes became concerned that he was isolated from the remainder of the Union Army on Orange Plank Road; he halted his advance and sent word to Hooker. His worries were well founded. MG Henry Slocum and the remainder of the Union force were behind Sykes' advance by nearly two miles due to delays caused by a complicated movement formation. When Slocum finally managed to get his troops progressing at 1300, he was met within half an hour by Confederate artillery and the skirmish lines of Anderson's division (the other half of Jackson's attacking force). Anderson methodically pushed Slocum back up the Plank Road toward Chancellorsville, nearly flanking his rear and cutting him off from Chancellorsville. Meanwhile, Meade's march towards Bank's Ford was progressing well, and his troops were within two miles of the river.[31]
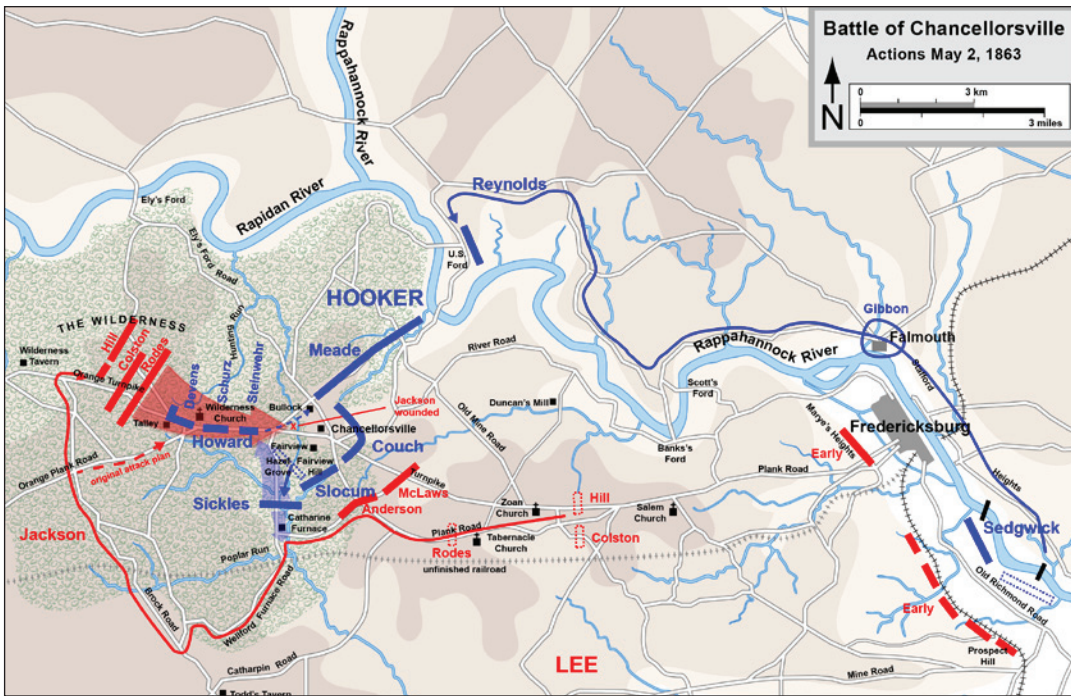
At this time Hooker made another fateful decision. Upon receiving word from Sykes, Hooker immediately dispatched orders to all his corps commanders (including Meade who was nearly to his objective) to retreat back to the defensive positions outside Chancellorsville.[32] As the Confederates continued to press, Union forces retreated to their positions of the previous day. They reached Chancellorsville as dusk fell and began to fortify their lines at Hooker's orders.[33] The Union Army established a u-shaped defense oriented around Chancellorsville. The lines ran from approximately one mile northeast of the Chancellorsville crossroads, gently curving around to the south along the turnpike and Chancellorsville clearing before hooking slightly westward for approximately two miles and then ending in the dense "wilderness" to the west. Thus, the main body of the Union's defense was oriented almost exclusively south and east. The western flank, Hooker's reserves under MG O.O. Howard, did not

fortify its position. Howard considered the dense vegetation obstacle enough and argued to Hooker that any significant action from Lee to the west was unlikely at best. Hooker did not press the issue, and the western flank remained exposed.[34]

This decision created an opportunity for Lee. Intent on maintaining the initiative gained through the day's attacks and Hooker's retreat, Lee and Jackson conferred the night of 1 May. Lee knew his small force could not outmatch the overwhelming strength of the Union Army and its prepared defenses head on, but he had to attack quickly to prevent Hooker from realizing the weakness of his defensive line at Fredericksburg.[35] As Lee and Jackson debated plans of attack, they received word from Stuart's cavalry scouts. Stuart reported that Hooker's western flank was exposed, unprotected by prepared defenses or a natural obstacle. Together, Lee and Jackson developed a bold plan. Lee would divide his already drastically outnumbered forces yet again. Jackson would take his II Corps and daringly flank the Union Army, crossing in front of the entire Union line to attack Hooker from the west. Lee and just two divisions would remain to distract the Union main body to the southeast and cover Jackson's movement.[36] Movement was set to begin at first light.[37]

Delays in preparing the corps to advance pushed the movement to 0700. To conceal his long march, Jackson took his men along a circuitous path: west along the Union front then south for several miles before turning north onto a little used local farm road set back in the "wilderness" that joined the turnpike at Dowdall's tavern, just beyond the end of Union defensive lines.[38] As Jackson marched, Hooker received reports of the Confederate movements. He sent a quick cautionary note to Howard regarding the possibility of a flank attack from the west; however, Hooker was convinced Lee's movement posed no real threat. Indeed, Hooker assured himself that these movements were further signs of Lee's retreat and that his plan was working just as he had hoped. To spur Lee along, Hooker ordered MG Daniel Sickles and Slocum to "harass" Lee's retreat, which resulted in an inconsequential attack on Jackson's rear guard.[39]

By mid-afternoon Jackson's corps arrived at Dowdall's tavern and reconsolidated for its attack. By 1700 that night, Jackson's men were ready. As the sun was setting, Jackson gave the order and initiated the attack on Howard's unsuspecting XI Corps.[40] Advancing in two waves along Orange Turnpike, Jackson's onslaught quickly overwhelmed the unprepared Union troops who began to fall back towards the main Union position.[41] After pausing to reform their lines, the Confederates pressed the attack, pushing in two waves against the retreating Union troops. Soon Jackson's left flank outpaced his right, whose cautious commander piecemealed his movements fearing reports of Union cavalry.[42] This hesitation allowed enough time for the Union to gather itself into a hasty defense. Hooker received word of the Confederate attack approximately one and a half hours after the assault began, and despite his shock reacted decisively. He ordered artillery to Hazel Grove where

Map 3 — Battle of Chancellorsville, Actions on 2 May 1863

Map by Hal Jespersen, www.cwmaps.com

Sickles to withdraw from Hazel Grove, judging the ground to be untenable. Seizing the opportunity, Stuart ordered three brigades forward. After meeting some resistance from the Union artillery on Fairview Knoll and the rear guard of Sickles' retreating force, the Confederates seized Hazel Grove by 0630. The Confederates established artillery in the grove, and then Stuart continued to press the attack along the Orange Turnpike. Unlike the day before, the Confederates faced stiff opposition, and their attack on the fortified Union position was slow and bloody.[48] As Stuart pushed the federals toward the Chancellorsville crossroads from the west, Lee and his two divisions attacked from the south, slowly uniting the Confederate lines.

This synchronized effort squeezed the Union lines, and grudgingly the Union surrendered ground as they retreated northeast toward Chancellorsville. Hooker realized his position at Chancellorsville was no longer tenable; he ordered the Army of the Potomac to withdraw from Chancellorsville at 1000 on 3 May.[49]

Alfred Pleasonton's cavalry was already mounting a hasty defense. Hooker then shifted a division of Sickles' corps to Fairview Knoll and Meade's V Corps to the Chancellorsville crossroads to offer resistance.[43] Reynolds' I Corps, which had just crossed at U.S. Ford, was directed to "occupy the ground vacated by the XI Corps," a somewhat futile task.[44] The remainder of the Army took up defensive positions between Fairview Knoll and the Chancellorsville crossroads, and fighting continued into the night.[45]

Jackson wanted to continue pressing the attack but needed to evaluate the Union Army's new positions and so set off in the dark with a small group of staff on a reconnaissance of the Union lines. It was then that tragedy struck the Confederate Army. When attempting to re-enter the Confederate lines following his reconnaissance, Jackson was shot and wounded by members of his own corps. Command of II Corps passed to MG A.P. Hill as Jackson was evacuated.[46] (He died on 19 May 1863.) Before Hill could continue the attack, he was also wounded and forced to leave the field. Hill appointed Stuart to command II Corps. Stuart, however, was not present so command temporarily passed to BG R.E. Rodes. Rodes ordered that the attack be halted for the night, and Jackson's bold advance temporarily stopped.[47]
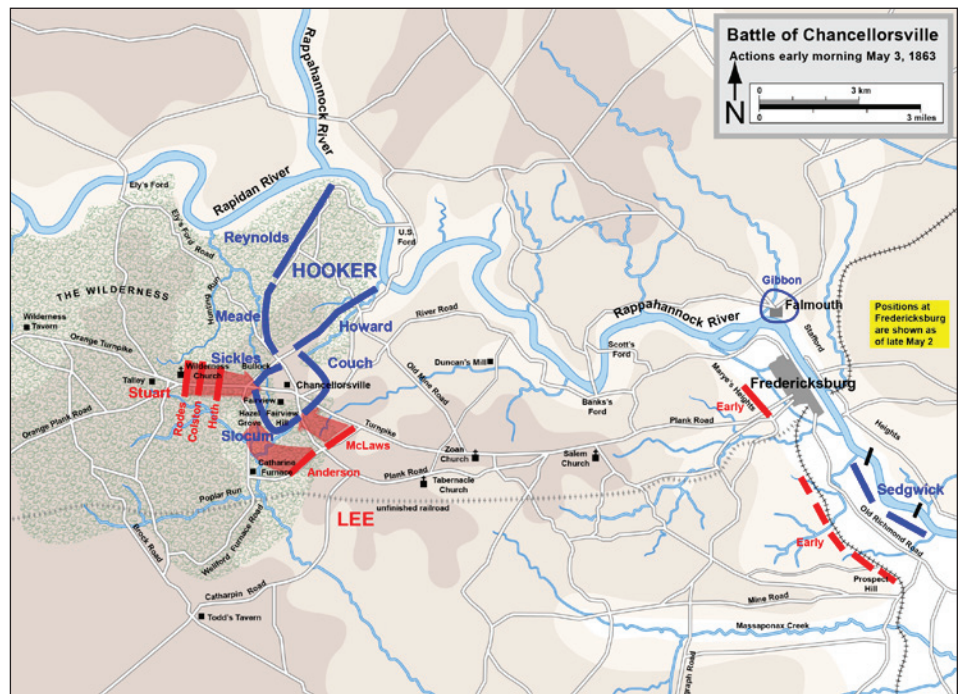
Fighting resumed early on 3 May. At dawn that morning, Hooker ordered

Map 4 — Battle of Chancellorsville, Actions in Early Morning of 3 May 1863

Map by Hal Jespersen, www.cwmaps.com

Sedgwick's forces, whom Hooker had ordered across the river the previous day to reinforce his position, had fought their way through the weakened Confederate lines at Fredericksburg.[50] Skillful delaying actions by the outnumbered Confederates held Sedgwick's forces between Salem Church and Bank's Ford, too far south to offer any reinforcement to Hooker's position.[51] Unaware of the ordered withdrawal, Sedgwick held this position waiting for Hooker to reinforce him as he had promised in his orders. Hooker did not send any reinforcements.

Lee sent two divisions from his main army to fix Sedgwick and protect his rear. Lee's augmented force attacked Sedgwick around 1800 on 4 May. After suffering 4,500 casualties, Sedgwick withdrew his forces across the river under the cover of darkness.[52]

Sedgwick's defeat to the south was the final nail in the coffin of Hooker's plan. Hooker decided to completely withdraw Union forces, ending his assault south of the Rappahannock. The Army of the Potomac began its retreat across the river early on 5 May, and by 0900 the following day all Union forces were on the northern banks. Hooker's "grand envelopment" had failed.[53]

Photo courtesy of the Library of Congress Prints and Photographs Division

Union forces move wounded troops across the Rappahannock River following the Battle of Chancellorsville.

Analysis

The battle of Chancellorsville stands out among Robert E. Lee's impressive list of victories for good reason. While certainly aided to a degree by Hooker's actions, Lee's expert application of the characteristics of the offense — specifically **audacity** and **surprise** — allowed him to seize the initiative and decisively defeat a much larger force.

The first and perhaps most evident characteristic Lee applied at Chancellorsville is that of **audacity**. Conventional military wisdom dictates that in the face of much larger attacking force one should mass his strength and adopt the strongest defensive position available or, if no positions are tenable, retreat. This was how both Lee and Hooker had been taught at West Point and is the exact behavior Hooker believed he was forcing on Lee through his "grand envelopment." Lee, who was strongly offensive-minded, however, chose to repeatedly and boldly ignore this conventional wisdom at Chancellorsville. He chose to divide his already smaller force and meet Hooker's assault with his own attack — not once but twice. The first division occurred on 1 May when Lee ordered Jackson's II Corps from its strong defensive position on the heights overlooking Fredericksburg to attack towards Chancellorsville. This left just one Confederate division to oppose three Union corps staged across the river, creating a risk to Lee's rear flank. However, Lee correctly surmised that staying in place at Fredericksburg would play directly into Hooker's hand, trapping his army between Hooker's advance

Map 5 — Battle of Chancellorsville, Actions on 4-6 May 1863
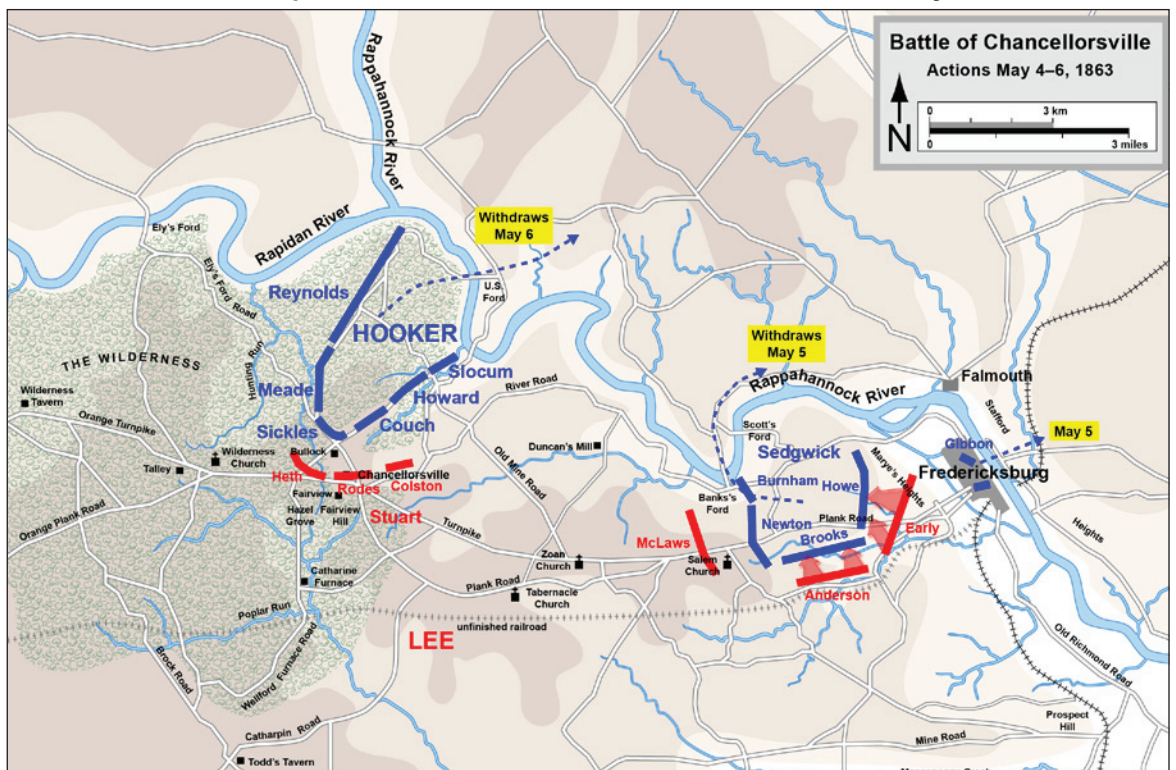
Map by Hal Jespersen, www.cwmaps.com

to the west and Sedgwick's corps across the river — forcing retreat or destruction. By attacking, Lee not only created distance between his main body and Fredericksburg, which increased his maneuverability, he also stalled the Union attack. As Hooker was so thrown off by Lee's unexpected attack, he halted his own advance and withdrew into defensive positions, essentially ceding the initiative. Lee then capitalized on Hooker's hesitation with the second and most famous example of **audacity** at Chancellorsville — Jackson's flanking march on 2 May. Not only did the flanking movement divide Lee's army for a second time, an almost unthinkable risk according to convention, it also took Jackson's II Corps across the entire front of the Union defensive lines, potentially exposing the majority of his troops. Lee understood the risks of this maneuver; however, he judged them to be worth the reward. While the Union had faltered on 1 May, its defensive positions were too strong for Lee to meet head on. Lee determined that attacking the western flank — where the Union defenses were weak — was his only chance to force the Union out of its prepared positions and the only way he could push Hooker back north. As he had the first time, Lee again accepted risk to keep the initiative and force Hooker to fight on his terms. Lee's division of troops at Chancellorsville is still regarded as one of the most audacious maneuvers in military history and is a major reason he achieved victory at Chancellorsville.

Directly tied to Lee's application of **audacity** at Chancellorsville was his use of **surprise**. Lee understood Hooker's frame of mind and the intent of his actions and exploited them by consistently behaving counter to Hooker's expectations. Rather than withdraw to his prepared defenses or retreat towards safety near Richmond, Lee postured his smaller force to attack the advancing Union Army on 1 May. This action surprised Hooker enough to cause him to halt the Union attack and take up defensive positions even though his force still held the initiative and numerical superiority over its attackers. Jackson's historic flank attack was the very definition of **surprise**, assaulting through what Howard had thought was impenetrable forest from a direction far from the reported Confederate lines. This shock proved the decisive point in the battle of Chancellorsville. Jackson's attack decimated Hooker's western flank and over the next two days forced the Union defensive positions to collapse, eventually causing Hooker's full retreat across the Rappahannock.

By almost every metric, Hooker and the Army of the Potomac had the advantage on the eve of the battle of Chancellorsville. His force numbered more than double that of Lee's and was well supplied and rested from its winter encampment. However, despite these advantages and the most promising tactical plan the Union had yet developed, Hooker was no match for Lee.[54] Through the expert application of **audacity** and **surprise**, Lee and his statistically outmatched Army of Northern Virginia defeated the Army of the Potomac at Chancellorsville in one of the most stunning Confederate victories of the Civil War.

Notes

[1] Stephen W. Sears, *Chancellorsville* (Boston: Houghton-Mifflin Co., 1996), 445.

[2] Edward J. Stackpole, *Chancellorsville: Lee's Greatest Battle* (Harrisburg, PA: Stackpole Co., 1958), 85.

[3] Ibid, 86.

[4] Ernest B. Furgurson, *Chancellorsville, 1863: The Souls of the Brave* (NY: Knopf, 1992),13-15.

[5] Carl Smith, *Chancellorsville, 1863: Jackson's Lightning Strike* (London: Osprey, 1998),7.

[6] David G. Martin, *The Chancellorsville Campaign: March-May 1863* (Conshohocken, PA: Combined Books, 1991),9.

[7] Smith, 10-11.

[8] Stackpole, 63-67.

[9] Smith, 15.

[10] Furgurson, 16-17.

[11] Smith, 9.

[12] Martin, 89.

[13] Stackpole, 94.

[14] Ibid, 95.

[15] Furgurson, 67.

[16] Stackpole, 124-126.

[17] Furgurson, 103.

[18] Smith, 39.

[19] Ibid, 39.

[20] Sears, 174.

[21] Stackpole, 136.

[22] Ibid, 136-144.

[23] Ibid, 145-146.

[24] Ibid, 151.

[25] Sears, 188.

[26] Ibid, 189.

[27] Ibid, 198.

[28] Ibid, 199.

[29] Martin, 106.

[30] Ibid,108.

[31] Martin,109-110.

[32] Ibid, 111.

[33] Ibid, 114-115.

[34] Furgurson, 137.

[35] Ibid, 138.

[36] Ibid,139.

[37] Ibid, 142.

[38] Ibid,145.

[39] Smith, 50.

[40] Ibid, 52.

[41] Ibid, 54-55.

[42] Ibid, 55.

[43] Stackpole, 245.

[44] Ibid, 246.

[45] Ibid, 245-254.

[46] Ibid, 261.

[47] Ibid, 262-266.

[48] Smith, 65-68.

[49] Ibid, 68-69.

[50] Ibid,71-75.

[51] Ibid,78.

[52] Ibid, 79-82.

[53] Ibid, 82-84.

[54] Sears, 120.

Photo courtesy of the Library of Congress Prints and Photographs Division

Soldiers of the 110th Pennsylvania Regiment line up at Falmouth, Va., on 24 April 1863. Just a week later, the unit fought at Chancellorsville under MG Daniel Sickles' III Corps.

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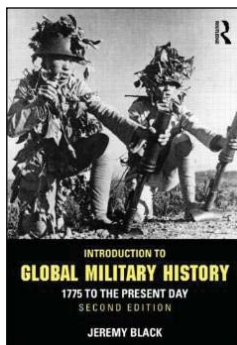
Book Reviews

Introduction to Global Military History: 1775 to the Present Day
By Jeremy Black
NY: Routledge, 2013, 319 pages
Reviewed by
CPT Nathan A. Jennings

Jeremy Black's impactful work, *Introduction to Global Military History*, is a richly informative and comprehensive narrative of how warfare has evolved across the world landscape since 1775. Arriving in its much-improved second edition in 2013, the book offers a marked departure from most Western-centric military histories now used in both academic and popular study with a concerted effort, according to the author, to "re-examine earlier struggles" in a "context of plurality" with shared emphasis on Asian, African, and Latin American affairs. Thus, while the author, who is also a noted professor at the University of Exeter in England, both chronologically and regionally incorporates seismic confrontations that have typically defined military history projects, like the Napoleonic wars and World Wars I and II, he studiously maintains balance by "moving away from the idea that there is a clear hierarchy of importance in military history and an obvious pattern of development."

With such a dynamic approach, *Global Military History* provides an excellent primer for military professionals in regionally aligned brigades and special operations units seeking general understanding of how human conflict has evolved between 1775 and now. Beginning with the American Revolution and Napoleonic era as "the origins of modern war" and concluding with careful presentation of the West's current focus on "terrorism and rogue states" in Southwest Asia and Africa, Black employs engaging writing across 13 relatively condensed chapters that are replete with maps and pictures to capture and retain the reader's attention. While this format — and the work's necessary dearth of analytical depth and detail in any single period or event — will not serve for advanced or graduate studies, it nevertheless achieves its aim of priming newcomers to military history with a comprehensive description of how humanity has waged war in diverse settings over the previous two centuries.

First published in 2005 and now substantially enhanced with updated chapter introductions and conclusions, primary source perspectives, case studies, color maps, and an annotated bibliography, *Global Military History* finds greatest import in its explicit imperative to "include more discussion of Asian developments than" in previous works. Recognizing that the majority of the world's population lived and lives in East and South Asia during the period covered, the author discards "the notion that they were somehow passive victims of the inexorable rise of Western military dominance." This includes not just discussion of familiar confrontations between American and European powers and Asian, African, and Latin American peoples during the World Wars and decolonization, but also lesser studied events between and within less industrialized societies such as Chinese and Indian civil instability, the Arab-Israeli wars, and the Indian-Pakistani conflicts. The picture on the book's cover, which displays Chinese soldiers from the Sino-Japanese War instead of traditional images of Western combatants from places like Gettysburg or Normandy Beach, symbolizes this shift, or broadening, of emphasis.

Taken as a work that carefully weaves the often sporadic and haphazard development of armed conflict into an eminently digestible narrative, *Global Military History* should be considered for defense professionals seeking introductory understanding of the history of warfare at continental scale or in specific regions. Throughout the study, the historian eschews definitively committing to either traditional "war and society" approaches or the more recent "cultural turn," but rather seeks broader and more nuanced engagement with evolving "social, cultural, political, and economic" influences, in addition to technological factors, as he balances context and "the military dimension." While the resulting focus moves rapidly between events and geography, a necessary limitation due to the book's intended purpose and the ambitious span of history explored, it nevertheless allows maximum exposure to the rich, if unfortunate, diversity of conflicts that have plagued humanity during the modern and post-modern eras. Moving beyond the "Eurocentricity" of studies still used in most military academies and universities, Black's innovative work — and its emphasis on incorporating Asian, Latin American, and African conflicts as developments worthy of attention on par with Western affairs — arrives as a much-needed complement to the current field of military histories.

One Million Steps: A Marine Platoon at War
By Bing West
NY: Random House, 2014, 320 pages
Reviewed by CPT Jake Miraldi
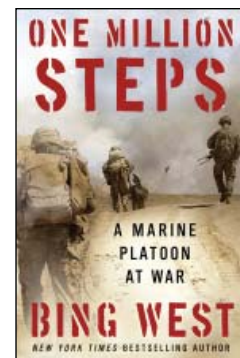
Bing West's latest book, *One Million Steps*, continues his unique and prolific reporting on the wars of the last decade. Over the course of the wars in Iraq and Afghanistan, West has been a constant presence. In Iraq, he lived and patrolled with Marines in Fallujah. In Afghanistan, he chronicled Army and Marine operations in support of the 2009-2010 surge. In *One Million Steps*, West embeds with the 3rd Battalion, 5th Marines — specifically 3rd Platoon, Kilo Company — which is isolated in a small combat

outpost amidst the sweltering farm fields of Sangin District of Helmand Province in southern Afghanistan.

The platoon is asked to accomplish an extremely difficult and often nebulous mission which West chronicles through the daily struggles of the Marines, numerous fire fights, and "ground-level" treatment of the failings of counterinsurgency. What has always stood out most about West's reporting across his various works is not only his intimate understanding of Infantry Soldiers and Marines, but also his personal willingness to step out with them, to endure the hardships and dangers they face, and to report their struggles and triumphs with compassion and a knowing empathy. *One Million Steps* is no different. It is an ode to Marines and the young men who are willing to volunteer for hardships that most will never experience. He revels in the bonds forged between the Marines of 3/5 and throughout the narrative links those bonds through the history of the Marines to World War II and Vietnam. West paints a vibrant picture of the young men who serve in the Infantry. Brave, stubborn, gregarious, his narrative shows young men at war doing the same things young men at war have always done. Through his own personal observation on patrol and at 3rd Platoon's base, West is able to lovingly describe these Marines in a way that only someone who has experienced war in much the same way possibly could. *One Million Steps* continues the trend of West's other books where the characterization of the men shines throughout. For the tactical Infantry leader, the narrative provides not only a ground-level view of small-scale, low-intensity conflict, but more importantly can teach young leaders something about the nature of men engaged in the constant stress of combat and help prepare, even the uninitiated, for those realities.

But while *One Million Steps* heaps praise on individual Marines and junior leaders, it also places in doubt much of the thinking of senior commanders. Throughout the book, West discusses the failure of leaders to develop a long-term strategy and decries "civics lesson" counterinsurgency. West feels so strongly about the lack of leadership from higher echelons and the futility of current counterinsurgency doctrine that he cannot help but intersperse critiques as asides throughout the 3rd Platoon narrative. He also takes high-level commanders to task for their confused and contradictory messages to Soldiers and Marines about what the mission in Afghanistan was and what its goals were.

West's connection between the leadership and strategic failures of policy makers and the hard work and suffering of 3rd Platoon's mission is heartbreaking. Through 3rd Platoon's daily grind of patrolling, we see the end result of unclear or wrongheaded policy. The sacrifices made by 3rd Platoon were not wedded to a coherent end state and thus, in West's words, "There would be no winning or defeating of the enemy. All 3rd Platoon could do was slug it out, day after day." If there is one central theme in *One Million Steps,* it is the juxtaposition of young Marines, doing the very best they can with the orders given to them, fighting it out day after day, and policy makers and generals dithering about timelines and methods without developing a fully formed strategy. To West, that is the tragedy of the war in Afghanistan.

One Million Steps is West's final discussion of the wars in Iraq and Afghanistan. The courage it chronicles and the

missteps it casts light upon conclude West's outstanding reporting on the wars of the last decade, the totality of which stands as an important record of the successes and failures of the armed forces during that time. *One Million Steps*, when taken with West's other books, encompasses a body of work that should be reviewed carefully by military leaders of all levels and should influence decision makers in the future.

Heroes in Death:
The von Blücher Brothers in the
Fallschirmjäger, Crete, May 1941
By Adrian Nisbett
Atglen, PA: Schiffer Publishing,
2014, 176 pages
Reviewed by USMC
LtCol (Retired) Michael R. Janay

This is a book about a warrior family (a true story by the way): the three von Blücher brothers who fought and died in the Battle of Crete in May 1941.

It recounts the brothers' real lives, however short, in Germany before World War II, their training as airborne paratroopers (Fallschirmjäger), how they died in the invasion of Crete, and the aftermath of their deaths.

The author's primary research is exceptional — he visited the von Blücher estate in Fincken in central Germany (former East Germany). This town exists today through its farms, but it's searching for a way to the future.

It begins with the pre-action phase of "waiting." For as long as there have been armies preparing, training, and rehearsing battle drills, there has always been waiting! The selection and training to be a German airborne paratrooper was tough and demanding. An important point is that these men retained the right to act on their own initiative. They had the ability to move rapidly to trouble spots and immediately go into action. These soldiers had an aggressive spirit and unwavering determination to succeed, and all ranks were encouraged to be leaders.

The Fallschirmjäger's Ten Commandments on pages 57-58 gave a no-nonsense summary of what each man's duties and responsibilities were expected. With excellent training and quality of the men first-rate, they were ready for war.

With the beginning of World War II on September 1939, planning was underway for the assault on the Belgian fortress of Eben Emael and the bridges over the Albert Canal. The dramatic, bold, and astonishing operation immediately gave the Fallschirmjäger hero status in Germany.

But, the price they were to pay in the Battle of Crete would be great. They did not adjust their doctrine by paying attention to "lessons learned" in earlier battles, and that cost them dearly. They carried little equipment on their person — their weapons and equipment containers were specially marked. They had not done any terrain appreciation of landing zones either. Also, their parachutes did not have a quick-release harness buckle.

The Battle of Crete was destined to play out in the "fog of war" because of Ultra signals intelligence, which gave the British decrypts of German orders and signals relating to Crete.
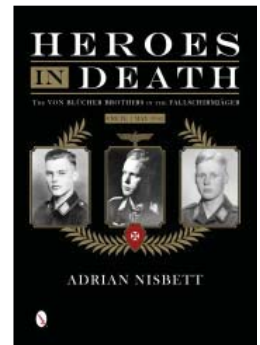
The Germans knew the British Royal Navy dominated the eastern Mediterranean, and the Germans also lacked suitable amphibious landing ships needed for a seaborne assault. The British assumed an attack was imminent and planned the defense.

The German concept was to strike all three airfields in Crete almost simultaneously. But this was a hastily conceived operation based on poor intelligence and poor staff work. The operation order stated there were just 5,000 disorganized defenders, when in fact the British had fortified Crete with 43,000 Allied troops from Egypt, who had time to properly prepare a defense in depth. It was the Germans who were totally surprised, not the British! This book describes the Battle of Crete in great detail. In hindsight, the Germans were almost doomed because of over-confidence, poor intelligence on enemy dispositions and numbers, dispersal of forces, and troops who were too lightly armed. Bravery alone should not compensate for such failures, but in fact it did. The Germans won the Battle of Crete, but the price was their airborne jewel — the Fallschirmjäger. There would be no more large-scale airborne assaults.

After World War II all the fallen were re-interred into one cemetery on Crete. The von Blücher family fled advancing Russian armies and lost most of their personal effects. The three von Blücher brothers' only surviving sister as well as the Fallschirmjäger archives provided many of the details which will also impress readers of this book. The lessons of this book are timeless — the professional benefit is the opportunity to learn. I enthusiastically recommend this book to Warriors as well as the families they have to leave behind.

Moment of Battle: The Twenty Clashes that Changed the World
By James Lacey and Williamson Murray
NY: Bantam Books, 2013, 496 pages
Reviewed by LTC (Retired) Rick Baillergeon
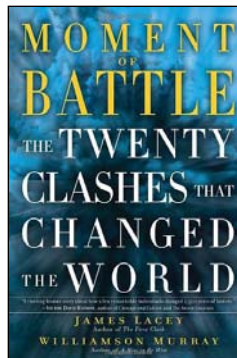
Since the release of Edward Creasy's *The Fifteen Decisive Battles of the World in 1851*, we have seen many books published tied to that basic theme. Ensuing authors have put their own twists to Creasy's original idea. These variations have included the selection criteria of battles, number of battles selected, the detail of scholarship, and the focus of the book. A few of these volumes have been on par with Creasy's seminal book while many others have fallen significantly short. One recent release that is clearly comparable with Creasy's is the outstanding *Moment of Battle by* James Lacey and Williamson Murray.

Within *Moment of Battle*, acclaimed authors Lacey and Murray have selected 20 battles in history they believe have or will have the most long-term impact on the course of history. The battles selected range from Marathon in 490 B.C. to the 2003 seizure of Objective Peach in the race for Baghdad. In

between, there are many battles readers will be quite familiar with (Vicksburg, Marne, Midway, Kursk, Normandy) and some that are not so recognizable (Zama, Adrianople, Yarmuk, Annus Mirabilis).

Obviously, the authors' selection of battles will not make everyone happy. The authors are not under any pre-conceived notions that there will not be some consternation from some readers. In their introduction they state, "There will be those who object to our selection of decisive battles, an inevitable reality for those who write military history. In fact, the authors are more than willing to admit that a number of important battles are deserving of consideration." Most of readers' objections will likely focus on the Western flavor of the battles and perhaps the long-term or even short-term significance of Objective Peach. (The authors justify this selection at the beginning of this chapter.)

Of the battles chosen, the authors use the same basic formula to achieve their objectives. It begins with an introduction of the period and events that led to the battle. With this foundation set, Lacey and Williamson concisely detail the execution of the battle. This in turn leads to the most valuable portion of the volume — the "what-ifs." What if the battle had ended differently? What would the consequences have been for each side in the short term and long term? Would there been dramatic changes economically, politically, militarily, and even in regards to religion? The authors superbly provide their alternative endings, but more importantly, provide readers much to think about.

As highlighted earlier, authors Lacey and Murray have established sterling reputations. Lacey is known for his books on the Iraq War and his book on Marathon and its long-term impact (which is certainly the basis for one of chapters in *Moment of Battle*). In regards to Murray, he is a prolific writer who has crafted a large and highly praised body of work. Certainly, many potential readers of *Moment of Battle* will have previously read one of his prior volumes.

The area where their talents truly standout is their ability to crisply summarize the battles themselves. In a minimum of pages, they are able to articulate the highlights of every battle. I believe their summarization provides readers with a good working knowledge of each battle. Thus, in roughly 20 pages they are able to execute the aforementioned formula for each battle. These 20 pages enable readers to consume *Moment of Battle* in the chunks they have time for.

The only negative I found within this book is the scarcity of maps. Each battle contains one map at the beginning of the discussion. Being one who believes maps add significant clarity to an author's text, this was a disappointment. I believe the addition of some more maps and even an "alternative ending" map for each battle (answering a what-if) would have been added value.

Will there be future books published along these lines? There should be little doubt on this. However, I believe *Moment of Battle* is clearly a mark on the wall for these future authors. Its concise and informative summaries of the 20 battles selected will benefit every general reader of military history. Its ability to make readers think will be of valuable to the more seasoned reader as well. In total, Lacey and Murray have crafted a volume which you would expect from these two celebrated authors — entertaining, informative, and thought-provoking.

In the Next Issue:

* Healthy Habits for Prospective Ranger Students

* Expectations of your MCCC: What Army Leaders Need to Know