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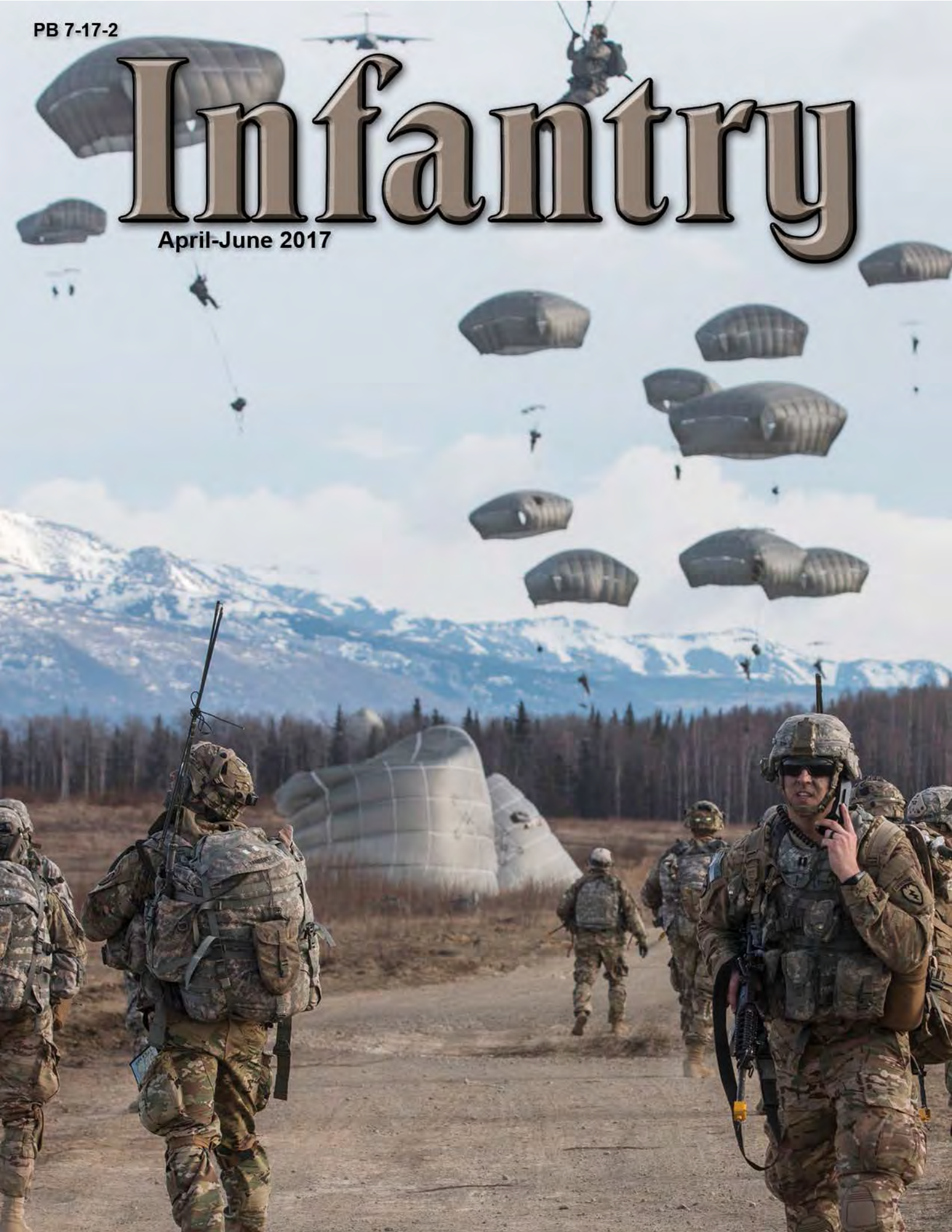
April-June 2017



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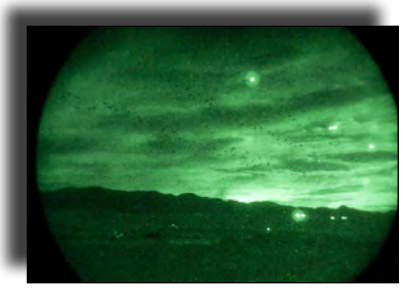

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This article shares some observations gleaned from the authors' experiences coaching, teaching, and training rotational units during the conduct of both force-on-force and live-fire operations in a training area slightly larger than the state of Rhode Island. The authors share some lessons learned, best practices, doctrinal discussion, and the opportunities offered at the National Training Center (NTC) at Fort Irwin, Calif., during seven rotational decisive action battles.

34 INTEGRATION OF THE T-11 ATPS

MAJ Allen M. Coones

Over the past decade, the Department of Defense (DoD) has experienced the challenge of transitioning from the T-10D legacy personnel parachute to the T-11 Advanced Tactical Parachute System (ATPS). The transition from one personnel parachute to another has been anything but simple. This article describes the challenges to integration and the changes in doctrine, training, and material implemented to meet these challenges and enable the successful transition to the T-11 ATPS.

39 HOW ENABLERS SHAPE THE DEEP FIGHT FOR THE BCT

CPT Colin Marcum

As with any shaping operation, shaping the deep fight seeks to "establish conditions for the decisive operation through effects on the enemy, other actors, and the terrain." In the case of a brigade combat team (BCT), that decisive operation will occur in the close fight. Therefore, when we discuss how enablers shape the deep fight we are referring to how we set the conditions necessary for the BCT to be successful in the current and subsequent close fights. This is done through planning, synchronizing, and employing enablers in such a manner that has a calculated effect upon the threat which can be qualitatively and quantitatively measured at a particular time and space prior to the decisive operation.

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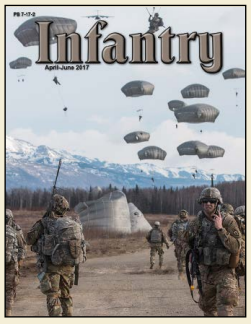
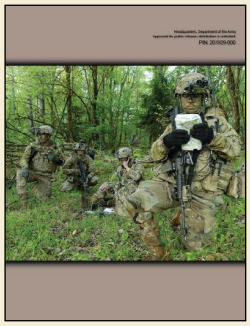


ON THE COVER:

Leaders with the 1st Battalion, 501st Parachute Infantry Regiment observe as their follow-on paratroopers exit a C-17 Globemaster to join in the fight during a Joint Forcible Entry Operation exercise at Joint Base Elmendorf-Richardson, AK, on 3 May 2017. (Photo by SSG Daniel Love)



BACK COVER:

Soldiers with the 3rd Squadron, 2nd Cavalry Regiment call in their location during Saber Junction 17 in Hohenfels, Germany, on 15 May 2017. (Photo by SSG Richard Frost)

75th Ranger Regiment Team Takes Top Spot at 2017 Best Ranger

KEITH BOYDSTON

After enduring and dominating three days of intense and grueling competition, the 75th Ranger Regiment team of CPT Michael Rose and MSG Josh Horsager captured the 2017 Best Ranger title on 9 April, beating out 52 other elite Ranger teams.

The team maintained the number one ranking going into the third day and during the final day of events, which included the Darby Queen obstacle course, water confidence course, and the final buddy run. The 75th Ranger Regiment team was able to slip past SSG Carlos Mercado and 2009 winner MSG Chad Stackpole of the 82nd Airborne Division who finished in second place.

"This competition was just as tough as the last one; my body is toast right now," said Rose, a member of the 2nd Battalion, 75th Ranger Regiment, Fort Lewis, WA, and who was also part of the winning team in 2014. "I'm more proud of this win because we brought the title back to the 75th Ranger Regiment and this one is for them."

Horsager, also of 2-75th Ranger Regiment, echoed that sentiment.

"This is something I've looked forward to since I joined the Army," he said. "It's been one of my career goals, and I'm proud to represent the 75th Ranger Regiment."

Rounding out the top three teams was last year's winning team of CPT Robert Killian and SSG Erich Friedlein of the National Guard.

Of the original 53 teams to begin the competition, only 21 finished. During the awards ceremony 10 April, Vice Chief of Staff of the U.S. Army GEN Daniel B. Allyn commended all the Ranger teams who competed.

"Each one of these great Rangers embraces the Warrior Ethos, and at the end of those few days, they will carry those values and experiences back to the units to train and develop the next generation of leaders," said Allyn.

The event challenges two-man Ranger teams in events that test their physical conditioning, Ranger skills, and team strategies. The events are purposely scheduled back-to-back and around the clock for 58 hours, allowing little time for rest and meals. The competition has been compared to the Ironman and Eco-Challenge competitions.

"This willingness to fight through pain, to persevere in the face of adversity and to work together to ultimately triumph, are the hallmarks every one of us holds dear and that ultimately assures success in life," Allyn said.

Read the complete article at: https://www.army.mil/article/185770/75th_ranger_regiment_team_captures_2017_best_ranger_competition.

(*Keith Boydston works for the Maneuver Center of Excellence Public Affairs Office.*)

Photos by Patrick A. Albright

CPT Michael Rose and MSG Josh Horsager, winners of the 2017 Best Ranger Competition, cross the finish line of the competition's final event on 9 April.

Photo by SPC Sharell Madden

Above, a competitor fast ropes from a UH-60 Black Hawk during the first day of the 2017 Best Ranger Competition. Top right, a team jumps over the final obstacle while competing in the Spartan Race event on 8 April. At right, a team completes the helocast event on the last day of the competition. Below, MSG Josh Horsager reaches for the Ranger tab before dropping into the water during the water confidence course on 9 April, the third and final day of the competition. View more photos at: http://www.fortbenningphotos.com/Infantry-Brigades/Airborne-Ranger-Training-Briga/Ranger-School/Best-Ranger-Competition/2017-Best-Rager-Cmpetition.

SFABs to Free BCTs from Advise, Assist Mission

C. TODD LOPEZ

In May 2017, the Army established the first of what will eventually be six security force assistance brigades (SFABs). That unit, now assigned to Fort Benning, GA, has already identified about 70 percent of the personnel who will ultimately serve under its flag and wear its patch — though right now, both the patch and the flag are still being designed.

The new SFAB and the five others planned — a total of five in the active component and one in the National Guard — will each have 529 Soldiers assigned and will be tasked to conduct advise and assist missions for the Army, said LTC Johnathan Thomas, who serves with the Army's G-3/5/7 force management directorate at the Pentagon.

Photo by CPT Jarrod Morris

A Soldier assigned to Train Advise Assist Command-East pulls security with an Afghan National Army troop during a partnered force protection patrol in Laghman Province, Afghanistan, on 23 September 2015.

"The SFAB is designed to rapidly deploy into a theater of operations in support of a combatant commander," said Thomas. "Once it arrives in that particular theater, it will begin to work with, train, advise, and assist those partner nation security forces on anything they need help with, be it logistics, be it communications, be it maneuver. Anything they need help with to improve their capacity and capability, that's what the SFAB is designed to do."

Thomas said SFABs could deploy to places such as Africa, South America, Europe, or anywhere Army senior leaders decide. The units will have the capability to deploy anywhere.

The advise and assist mission is one the Army has done for years, Thomas said, but it's something the Army has until now done in an "ad hoc" fashion. Brigade combat teams (BCTs), for instance, have in the past been re-tasked to send some of their own overseas as part of security transition teams or security force assistance teams to conduct training missions with foreign militaries. Sometimes, however, the manner in which these teams were created may not have consistently facilitated the highest quality of preparation.

The SFAB units, on the other hand, will be exclusively designated to conduct advise and assist missions overseas. And they will be extensively trained to conduct those missions before they go. Additionally, he said, the new SFABs mean regular BCTs will no longer need to conduct advise and assist missions.

"The SFAB, because it is going to go forward and advise, will somewhat relieve the pressure on our BCTs to go forward and do that mission," Thomas said. Instead, he said, BCTs can now concentrate on training and preparing for their next deployment.

He said that because the advise and assist mission is considered an enduring mission, "the Army decided... we should have a dedicated, permanent structure to get after this mission on behalf of our partnered forces and partner nations."

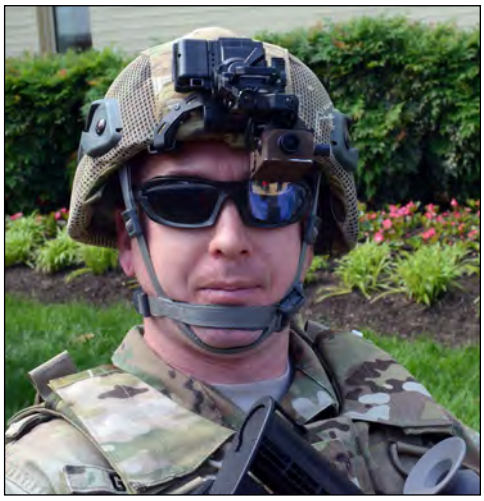
COL Scott Jackson, an infantry officer who has served in the Army for 27 years now, has been named the first commander of the Army's first SFAB. His unit, the 1st Security Force Assistance Brigade, which is headquartered at Fort Benning, was established in May but will officially activate this October.

"The really unique aspect of the SFAB, as a concept, is the training we are going to give the organization," Jackson said. "We are starting with a very talented pool of officers and leaders all around. But then we are going to give them an unbelievable training plan."

Read more about the new SFABs at: https://www.army.mil/article/188004/security_force_assistance_brigades_to_free_brigade_combat_teams_from_advise_assist_mission.

(*C. Todd Lopez writes for the Army News Service.*)

Heads-Up Display to Improve Situational Awareness



DAVID VERGUN

A novel technology called "Tactical Augmented Reality" (TAR) is now helping Soldiers precisely locate their positions, as well as the locations of friends and foes, said Richard Nabors, an associate for strategic planning at U.S. Army Research, Development and Engineering Command's Communications-Electronics Research, Development and Engineering Center (CERDEC).

TAR even enables Soldiers to see in the dark, all with a heads-up display device that looks like night-vision goggles (NVGs), he added. So in essence, TAR replaces NVGs and Global Positioning Systems (GPS), plus it does much more.

Currently, most Soldiers use a handheld GPS system that approximates their position, he said, but only if their device is geo-registered to their location. Geo-registration is the alignment of an observed image with a geodetically-calibrated reference image. TAR does the geo-registration automatically, Nabors said.

SSG Ronald Geer, a counterterrorism NCO with CERDEC's Night Vision and Electronics Sensors Directorate, said that with TAR, Soldiers don't have to look down at their GPS device. In fact, they no longer need a separate GPS device because with TAR the image is in the eyepiece, which is mounted to the Soldier's helmet in the same way NVGs are mounted.

So what they would see, he said, is the terrain in front of them, overlaid with a map. TAR is also designed to be used both day and night. Furthermore, Geer pointed out that the eyepiece is connected wirelessly to a tablet the Soldiers wear on their waist and it's wirelessly connected to a thermal site mounted on their rifle or carbine.

If a Soldier is pointing his or her weapon, the image of the target, plus other details like the distance to target, can be seen through the eyepiece. The eyepiece even has a split screen, so for example, if the rifle is pointed rearward and the Soldier is looking forward, the image shows both views, he said. Also, a Soldier behind a wall or other obstacle could lift the rifle over the wall and see through the sites via the heads-up display without exposing his or her head.

Finally, Geer said that TAR's wireless system allows Soldiers to share images with other members of the squad. The tablet allows Soldiers to input information they need or to share their own information with others in their squad.

David Fellowes, an electronics engineer at CERDEC, said that the key technological breakthrough was miniaturizing the image to fit into the tiny one-inch-by-one-inch eyepiece.

Current commercial technology compresses images into sizes small enough to fit into tablet and cell phone-sized windows, but getting a high-definition image into the very tiny eyepiece was a challenge that could not be met with commercial, off-the-shelf hardware.

Currently, CERDEC is working on producing more advanced versions that are in full color and have a brightness display that can even be seen in daylight. The current monochrome versions are also bright enough to be seen in daylight.

Read more about TAR at: https://www.army.mil/article/188088/heads_up_display_to_give_soldiers_improved_situational_awareness.

(*David Vergun writes for the Army News Service.*)

Assessing Leadership Effectively:

Get It Right, Every Time

COL BRIAN S. EIFLER

"If you look at readiness, if you look at combat power, the most important element of that is not technology. It's not the guns, the planes, the ships. It's not the weapons. It's not the computers. It's the people, and most importantly, it's the leaders."

— GEN Mark A. Milley[1]
Army Chief of Staff

Assessing leadership is one of the most important missions leaders have in the Army today. Unfortunately, it is often taken for granted. The pace at which the Army is conducting current operations, coupled with downsizing, often contributes to short-sided assessments of leaders. With minimum effort, supervisors quickly make result-oriented assessments of subordinate leaders and their ability to accomplish missions. It's easy to assess how subordinate leaders work well with others or act as a member of a team. In a results-oriented environment, it's easy to see productive leaders and assess them accordingly. However, if we stop there, a third and critical perspective is overlooked — the subordinates' perspective of their leader. Because obtaining this perspective/input often takes more time and investment, it is often left out. The subordinate perspective is where leadership lives and breathes, where a leader's passion resonates and inspiration either thrives or is non-existent. Without this critical portion of the Leadership Assessment Triad (see Figure 1), leaders often incorrectly assess subordinate leaders and perhaps accelerate careers prematurely. A leader's subordinates are where bad leadership develops and thrives unnoticed if not checked and corrected. This can lead to disastrous results with the advancement of the very leaders the Army seeks to remove. In addition, poor leadership tends to leave "bodies in its wake" and hemorrhages talent that our Army will need in the future. Far too many good leaders submit their request for unqualified resignation or depart the service early due to poor leadership.

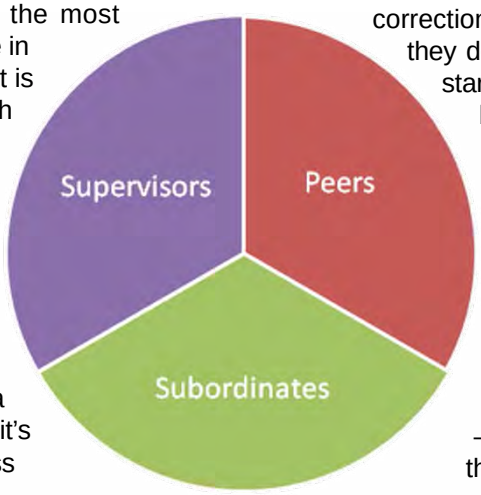


Figure 1 — The Leader Assessment Triad
(To accurately assess a leader, you must have input from all three elements)

A Theory on Assessments

Leaders develop both good and bad habits. In our profession, the Profession of Arms, we must hone leaders' good habits while helping them cast away the bad. If not done early on, bad habits can define a leader's style and character over time. Unfortunately, leaders are less likely to change the more experienced and senior they become. For example, lieutenants are moldable and can be shaped, even with significant course corrections. Captains are also still shapeable as they develop their leadership style, and majors start to become set in their ways but can still be influenced/developed. However, by the time officers are lieutenant colonels, they are fairly set with their leadership style — good or bad. This applies to the NCO corps, civilian work force, and any organization with leaders. It is much easier early on to get those that deviate from the path of good leadership back on the path. However, as time goes on, rank increases and the divide increases — meaning it's much harder to get back on the right path after years of reinforcement (see Figure 2).

Why the Triad is Important

Bill Hybels, founder of the annual international Global Leadership Summit, has a mantra: "Everyone wins when a leader gets better."[2] Investing in the development and accurate assessment of leaders is critical to success of the Army. As the Army continues to get smaller, the world continues to grow in complexity. As our nation's landpower force, the tasks the Army will be asked to do require exceptional leadership by leaders that are well developed, trained, and tested. The complexities of land warfare require our best leaders; we cannot afford to get this wrong. There is too much at stake. Our nation needs passionate leaders that embrace mission command, can inspire and build teams to accomplish the mission, develop subordinates by empowering and trusting them, can learn and accept critical feedback, and be a good team player. The Army needs leaders that are solid in moral character. All of these

traits are not necessarily observable from the superior's view. Leaders must utilize all aspects of the Leader Assessment Triad. If we don't, we are taking unnecessary risk. If character is truly more important than competence, we must access those perspectives of the led. It is important to find out how leaders act and operate when the boss is not around!

Often we miss this vital input, and it results in the advancement of potentially toxic leaders who crush subordinates and do not exemplify the leaders we need. As we have seen over the years, if poor leadership goes uncorrected at lower ranks, it will most likely surface at the colonel or general-officer level when leaders are more visible and under more scrutiny. When poor character surfaces, it is often scandalous and reflects poorly on the Army, but it is preventable if assessed and corrected early in a leader's development. We must make a habit early of considering the input from peers and subordinates when assessing leaders at every level — but how?

Peers. There is no doubt that your assessment as a leader's superior carries a lot of weight, but it's limited only to what you can see — often of what the subordinate leader wants you to see. Peers may assist in confirming or denying the accuracy of your assessment. Through routine counseling, leaders can easily see how leaders rate them among their peers. You can often see trends or friction as peer leaders discuss their peers and where they rank them. This can help confirm or deny your assessment. Another source of feedback can come from chaplains who can provide a sense of the climate in a company, battalion, or brigade without mentioning their sources or breaking their bond of trust with the Soldiers.

Subordinates. Renowned author and speaker on leadership John C. Maxwell states that the core of leadership — what's essential — is that leaders add value to people.[3] Where else can that be visible but through the eyes of their subordinates. Getting feedback on leaders does not mean one has to develop a "spy ring" or sneak around to try to catch a glimpse of leaders when they are unaware. That can build distrust and an unhealthy environment. But leaders do need to invest the time and effort to see the complete leader, not just a portion.

But leaders do need to invest the time and effort to see the complete leader, not just a portion. There are many techniques for getting this critical feedback/assessment, and none require a leader to undermine the trust of a healthy environment.

There are many techniques for getting this critical feedback/assessment, and none require a leader to undermine the trust of a healthy environment.

Command Climate Surveys. Commanders at every level are required to conduct Defense Equal Opportunity Management Institute (DEOMI) surveys within 90 days of assuming command and at six and 12 months of command. Commanders are required to share the findings with their superiors. These surveys can also be modified to include questions and concerns leaders may have about the command climate in addition to the equal opportunity-focused questions. The surveys often provide leaders another look inside a subordinate leader's unit in order to assess the morale and perception of the leadership. There may be some anomalies or some outlier comments, but generally the surveys can give good insight on subordinates' perceptions of their leaders. Again, these surveys can help confirm or deny your assessment.

Get out of your office! Visiting a subordinate unit's training is vital to assess much about a unit. Even better, seeing the unit in action without its leader is a great opportunity to see mission command in action. Talking with Soldiers to see how they are doing will often uncover issues or provide indicators of great or poor leadership (a first sergeant or command sergeant major are great sources on a leader's performance). Talking with the a unit's NCOs — sergeant through command sergeant major — often brings out the improprieties in a unit without much digging. Unit leaders reflect the passion of their top leader, and inspiration will be evident — the same is true if it is not.

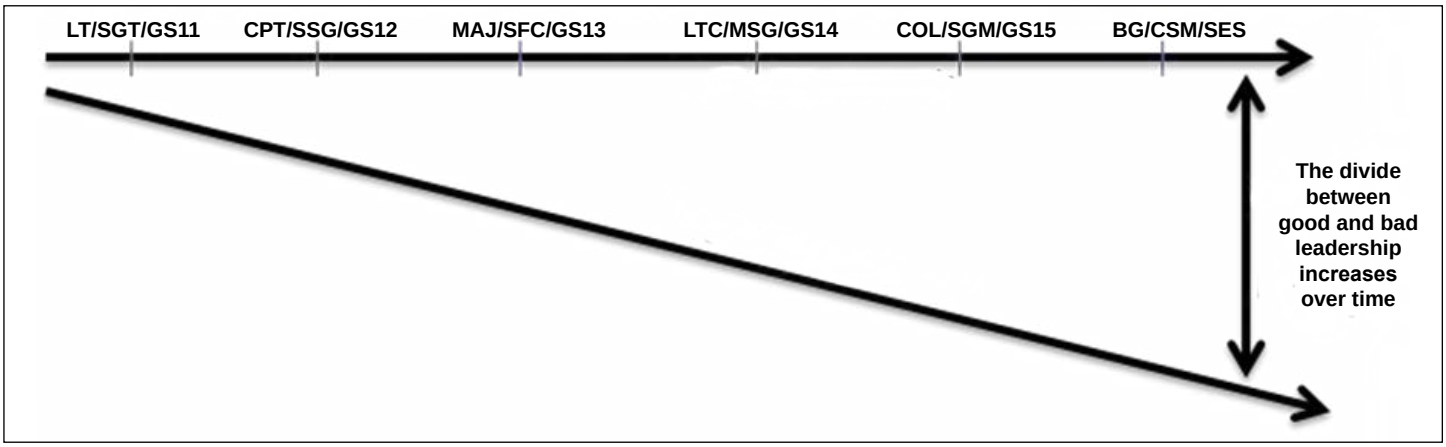


Figure 2 — Leadership Paths

(Poor leadership not corrected over time is reinforced by promotion, thus harder to change the more senior the leader)

Conduct physical training (PT) with subordinate units. This can be very revealing — you would be amazed at what you can find out about the climate. PT sessions are also a great opportunity to conduct impromptu sensing sessions and talk to unit leaders. If there are issues or concerns, they will surface. Company commanders through division commanders will see the benefits of this.

Counseling. It should be the case that a senior rater counsels the subordinates of the rater being assessed (i.e., brigade commander counseling company commanders). It is important not to break the trust of these counseling sessions, but if there is a problem that you are not aware of, they must be able to trust you with the information that could endanger their relationship with their boss. This is not a "kiss and tell" counseling session, but during performance counseling it can be very easy to confirm or deny your assessments of their boss with subtle questioning. Subordinates must know that their loyalty should be to the "U.S. Army" name tape on their uniform before anyone else's. If you put the Army first, you will never be wrong.

Tough, stressful, realistic training. Leaders must be trained properly and put to the test. That is how we certify leaders; that is how we develop. Through crucibles and adversity, we see the mettle that leaders are made of and often see their true colors shine through. External assessments or other leader's assessments of the subordinate leaders can help confirm or deny your assessment as well. "Fall-out one" drills in training where Soldiers move up a level in the absence of their leader are great ways to see leaders under stress. "Mangoday" events where small units made up of leaders of the same rank have to organize and accomplish a mission under high stress are great crucibles to assess leaders from all three perspectives of the Leadership Assessment Triad. These are just a few examples of how leaders can get after seeing subordinate leaders from the subordinates' point of view.

Conclusion

Excluding the subordinate view eliminates the ability to truly assess leadership and see how a leader leads when the boss is not around. Too many times, leaders at all levels are fooled because they only look at one piece of the assessment pie — only using their observations as a superior. This is exactly why poor leaders who get results often progress; the bad leadership behavior is typically only observable by subordinates. Superiors see the results but not the turmoil left in their wake (for example, CPT Sobel in *Band of Brothers*).[4] The mission command philosophy resides in a leader's subordinates. Are they empowered and entrusted? Are they given freedom to execute within the intent? Are they thriving? It's hard to confirm or deny from above with only one perspective. One must see the peer and subordinates' points of view — the entire assessment triad — to accurately assess leadership.

Assessing leaders is one of the most important things we do in the Army because leadership is vital to success. It is critical to talent management. The future depends on leaders getting this right — not most of the time but all of the time. There is no room for error. Periodically, as seen in the news, the Army is not getting it right. Supervisors cannot afford to take the risk and must incorporate all three aspects of the Leader Assessment Triad: the supervisor's, peers,' and the subordinates' assessments. Leave nothing to doubt. This must start early in a leader's career in order to develop properly and root out bad habits before they become nearly irreversible at a senior level — it's hard for a leopard to change its spots! The Army doesn't need to develop a new form or new survey to get after this; leaders just need to do their job.

SMA Daniel A. Dailey highlighted the following: "Nothing happens unless we have good leaders, so we need to continue to improve that for our Soldiers. I think we've made improvements, but there's still a lot of work that needs to be done."[5]

Supervisors at all levels must get this right. The nation is counting on the Army to develop, select, and promote adaptive leaders that can win on the battlefield of today and tomorrow. Soldiers are entitled to inspirational and passionate leadership. Leaders at all levels — officers, NCOs, and Civilians — must assess subordinates completely. Incorporating the assessment triad will assist supervisors in doing their duty and ensuring Soldiers get what they deserve — good leaders.

Notes

[1] Army Chief of Staff GEN Mark A. Milley, comments made at Norwich University during the centennial celebration of the ROTC program, 22 April 2016.

[2] Bill Hybels, remarks made at the Global Leadership Summit in Chicago, August 2016.

[3] John C. Maxwell, *Intentional Living* (NY: Hatchett Book Group, 2015),132.

[4] Stephen E. Ambrose, *Band of Brothers: E Company, 506th Regiment, 101st Airborne from Normandy to Hitler's Eagle's Nest*, (NY: Simon & Schuster, 1993).

[5] SMA Daniel A. Dailey, comments made during an interview with the *Army Times*, 30 January 2015.

COL Brian Eifler is currently the chief of Programs for the Army Chief of Legislative Liaison in Washington, D.C. He holds a bachelor's degree from Central Michigan University and master's degree from the U.S. Army War College. He has commanded tactical infantry units at the platoon, company, battalion, and brigade combat team level. He has served in the 82nd Airborne Division, 2nd Infantry Division, 4th Infantry Division, 1st Armored Division, 25th Infantry Division, and 75th Ranger Regiment.

A Call for an Effective Mentorship Program

MAJ ROBERT A. CRAPANZANO
MAJ CHAVESO L. COOK

In 2000, MAJ Robert Harney outlined the need for a formal Army officer mentorship program while attending the Command and General Staff College.[1] Now 17 years later, his thesis continues to be relevant as the Army still does not have an Army-wide program. Recent research demonstrates that the Army is still struggling to improve leader development, increase minority representation in combat arms, and increase retention of high-quality officers.[2] Furthermore, these problems will be exacerbated in the future by cultural changes of the millennial generation, increases in minority populations, and females in combat arms. Fortunately, countless evidence shows that mentorship programs improve leader development, retention, and minority representation.[3] It is time for the Army to create an effective formal mentorship program that will prepare the Army and its leaders to face future challenges of the 21st century.

Current Army Mentorship

Mentors and followers have a long history together. In Greek mythology, the original Mentor cared for young Telemachus. Later in the fable, Athena, the goddess of war, assumed the form of Mentor for Telemachus and led him abroad. Since this age of Odysseus, many famous mentor relationships have shaped the course of history. For example, GEN Dwight Eisenhower's rise to Supreme Allied Commander was a direct result of mentorship from GEN Fox Conner.[4] In order to understand how these relationships develop, leaders must first understand what mentorship is.

> *Mentorship is the voluntary developmental relationship that exists between a person of greater experience and a person of lesser experience that is characterized by mutual trust and respect. The focus of mentorship is voluntary mentoring that extends beyond the scope of chain of command relationships and occurs when a mentor provides the mentee advice and counsel over a period of time. Effective mentorship will positively impact personal and professional development. Assessment, feedback, and guidance are critical within the mentoring relationship and should be valued by the mentee in order for growth and development to occur.*
>
> **— Army Regulation (AR) 600-100, *Army Leadership*[5]**

The Army's definition highlights that mentorship is a voluntary relationship, involves different levels of experience, is characterized by trust, and extends beyond the chain of command. The Army goes further and includes coach, counsel, and mentor as part of its core leader competencies.[6] The Army emphasizes mentorship as a leadership technique and attempts to incorporate it into required developmental counseling and officer evaluation reports. Furthermore, the Army has attempted to use tools such as Army Career Tracker (ACT) and Multi-Source Assessments and Feedback (MSAF360) to provide officers with candid feedback and mentorship from their superiors. It is clear that the Army places a strong emphasis on mentorship and encourages it.

On the surface facilitating mentoring seems simple, but even establishing a common definition can be a significant challenge. Mentoring is a component of professional development in each service yet each service has its own definition of mentoring.[7] Adding confusion, the verbal triplet "coach, teach, and mentor" is thrown about carelessly enough that the words need entire articles to redefine them.[8] Lastly, although military doctrine repeatedly uses the term mentor, mentorship and patronage are often confused. This muddled understanding of mentoring is where our problem begins. Unfortunately, this is compounded by the Army's mentorship approach, where the shortcomings show most in the following two regards.

First, the Army's chain of command leadership style approach does not allow much mentorship from outside of the chain of command. Mentorship from outside of the chain of command allows for officers to expand their networks, learn about different career paths, and receive advice from experienced leaders who have limited interest with their mentee's unit. Even in efforts to encourage socializing, leaders have defaulted to mandatory social events despite the fact that mentoring is inherently a volunteer activity.

The second shortcoming of the Army's current approach to mentorship is that it does not promote long-term mentor relationships. Research shows that most successful mentor relationships last more than 10 years, which extends beyond the typical 18-month chain-of-command relationships.[9] Evidence shows that most mentor relationships go through four stages of development (initiate, cultivate, separate, and redefine), and the chain of command relationship only accounts for the first two of these stages.[10] While mentorship within a chain of command can promote initiation and cultivation, it fails to encourage growth through the separation and redefinition stages that occur after a chain-of-command relationship ends.[11]

In the absence of a formal mentor program, long-term and non-chain-of-command mentor relationships develop haphazardly. These mentor relationships have several negative by-products. Foremost, informal mentoring often focuses on the

most qualified Soldiers while excluding most highly qualified Soldiers whom account for a majority of the ranks. Additionally, cultural biases result in real and perceived favoritism and exclusiveness. A formal mentorship program combined with mentorship training as part of professional military education (PME) may improve the Army's shortcomings.

Despite the benefits of a formalized program and numerous recommendations for it, the Army has been slow to adopt broad sweeping change. MAJ Harney proposed that some of the reasons why the Army is reluctant to change are because:

1) The Army has not been challenged to change,
2) The informal mentor process is part of the Army culture, and
3) A formal mentorship program is not a leader priority.[12]

However, recent surveys of Army officers are challenging the Army to change. Furthermore, the growing populations of millennials, minorities, and women will continue to challenge the Army even more. The Army must adopt a formal mentorship program and make it a leader priority if it seeks to remain a premier leadership institution.

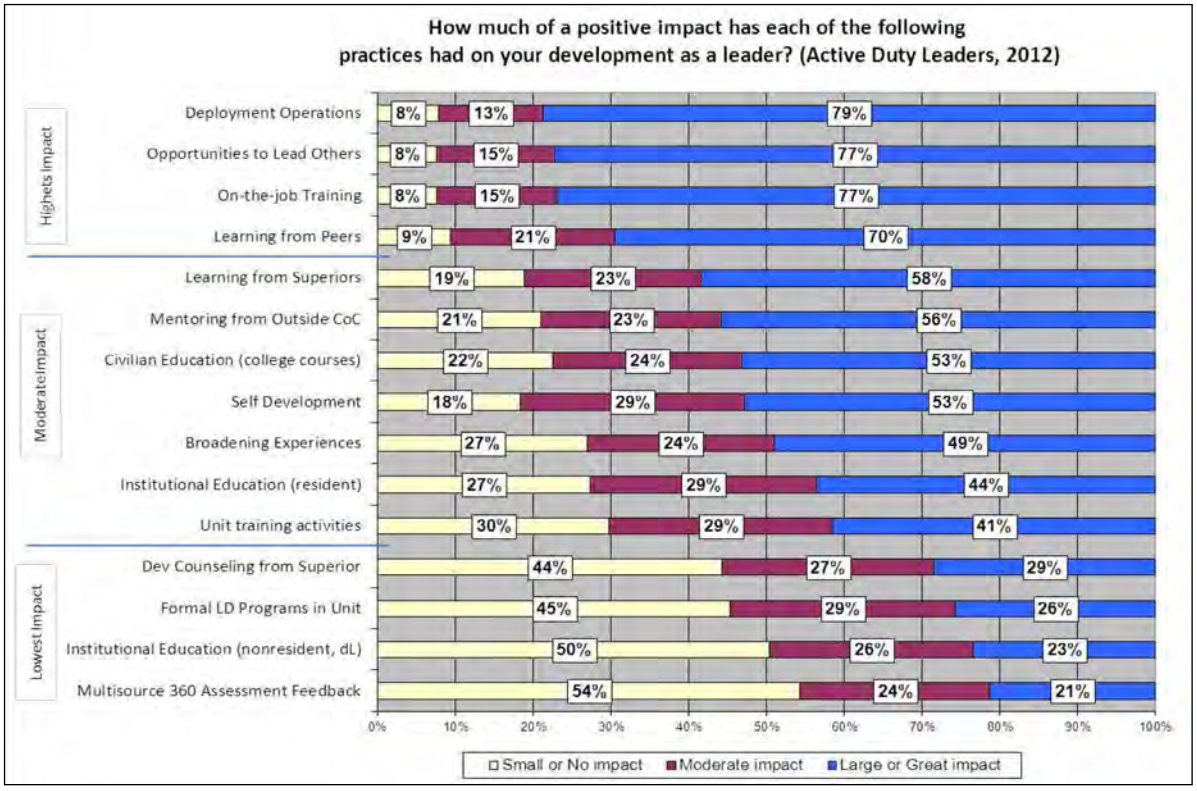
Benefit #1: Improve Leader Development

The Center for Army Leadership (CAL) conducts a CAL Annual Survey of Army Leadership (CASAL) to assess the quality and development of Army leaders. The 2012 report surveyed more than 27,000 officers and NCOs. The report identifies that "[d]eveloping others is the core leader competency most in need of improvement." Although the Army focuses on developmental counseling, the CASAL report actually finds that mentorship from outside the chain of command has a much larger impact to leader development than developmental counseling or formal leader development plans. Fifty-six percent of leaders reported that mentoring had a strong impact on leader development, while only 29 percent said that developmental counseling had a strong impact. Despite the perceived benefit of mentors, only 33 percent of leaders reported actually receiving mentorship from someone outside of their chain of command. The report clearly shows that leaders value mentorship but do not receive it as much as they should.[14]

Figure 1 shows a full list and ranking of the surveyed best practices for leader development. It is important to note that almost all items on the list have formal Army programs except for "Mentoring from outside CoC." Although the Army has published memorandums about mentorship, they have yet to establish an effective Army-wide program.

Unfortunately this problem is not new. The Professional Development of Officers Survey in 1985 analyzed the results of a survey from 3,684 officers. Similarly to the CASAL report, the survey revealed that officers strongly value mentorship but do not receive much of it. Seventy-six percent of officers said that being coached by a mentor was one of the top three learning experiences that prepared them for command; respondents agreed that mentoring was either extremely helpful (21 percent) or somewhat helpful (32 percent) in preparing them for their current assignment; and 88 percent of officers believed that officers should be mentors. Despite the strong value they placed in mentorship, only 41 percent of officers reported having a mentor either within or outside of their chain of command.[15]

Figure 1 — Leader Development Best Practices[13]



The results from the 1985 survey and the 2012 CASAL indicate that the Army has failed to provide the desired level of mentorship to officers for at least 30 years. A formal mentoring program would not only connect mentors with mentees but also provide mentor training and track the progress of the relationships. Combined with training during PME courses, a mentor program would help increase the percentage of officers that receive mentorship and subsequently increase professional development, performance, job satisfaction, and retention.

Benefit #2: Leverage the Power of Millennials

A formal mentor program will have the greatest benefit for leader development of the millennial generation. This generation — generally those born after 1980 —is distinctly different then the Gen X or baby boomer generations that preceded them. Millennials value mentorship and job satisfaction more than previous generations. This latest generation already makes up 56 percent of the Army's officer ranks and 80 percent of the enlisted ranks.[16] Due to their growing majority and potential, this younger generation will have the greatest impact to the Army's mission, retention rates, and development.

A key to understanding millennials is to understand their history and values. During their early developmental years in school and in entry level jobs, millennials were the primary users and founders of many social networks. They are intimately connected through social media, and they perceive their networks as a source of power. Their social networks extend beyond the digital realm. For example, Kickstarter, a crowd funding social network, has funded over 75,000 projects with more than $1.4 billion in pledges; 92 of the Fortune 100 companies use LinkedIn's Corporate Talent Solutions to recruit employees; and one in six marriages begin through online dating websites such as Match.com.[17-19] Although older generations often dismiss social networks as a narcissistic pastime of youth, the millennial generation understands that these networks translate into tangible results that affect professional and personal lives. Networks — and the mentor relationships that develop through them — are even more important to millennials than previous generations.

As a result of their connection with social networks, millennials desire to be more connected with their community and work. A 2010 survey polled 2,200 professionals and the most significant results showed that millennials:

1) Want constant feedback, and
2) Work in order "to make new friends, learn new skills, and connect to a larger purpose."[20]

Mentorship provides millennials with the feedback and sense of purpose that encourages them to achieve their full potential.

Another part of understanding this generation is to realize that job satisfaction is more important than salary. Millennials saw many Gen X and baby boomers lose their wealth during the subprime mortgage crisis and recession in 2007-2012. As a result, millennials value wealth less than older generations. Their defense to economic uncertainty is to make less money. The Brookings Institution noted, "Almost two-thirds (64 percent) of millennials said they would rather make $40,000 a year at a job they love than $100,000 a year at a job they think is boring."[21] This debunks the Army's classic approach to increasing retention. Historically, the Army has attempted to retain highly qualified Soldiers by offering them bonuses, such as the Critical Skills Retention Bonus (CSRB) in 2007-2008. The CSRB program offered captains $25,000-$35,000 to stay on active duty longer and cost the Army $500 million. Unfortunately, there is no evidence that it improved retention.[22]

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The Army will continue to be challenged to compete for talent against other firms such as Google and Apple that are rapidly growing. In order to retain the best-qualified officers, the Army will have better success by providing them strong mentors through a formal mentor program than by offering them monetary bonuses.

Luckily, an effective formal mentor program can improve leader development and retention of millennials. Such a program would empower millennials and foster a professionally networked environment that reflects the social network worlds that they are intimately familiar with.

Benefit #3: Increase Representation of Minorities and Women

Diversity is always a military priority and strength. The "United States Army Diversity Roadmap" outlined the Army's diversity vision as the Army being "the national leader in embracing the strengths of diverse people in an inclusive environment."[23] In general terms, diversity is the different attributes, experiences, and backgrounds of individuals. Although diversity accounts for a vast array of differences, this article focuses on black, Hispanic, and female minority groups which are usually the most underrepresented.

A review of black Army officers reveals that they are far underrepresented, especially in the combat arms branches. In 2012, blacks accounted for 22 percent of the Army but only 13.5 percent of officers.[24] Recent draw downs in the Army also are affecting blacks harder than other races. A recent Officer Retention Board dismissed 10 percent of black and 8 percent of Hispanic majors compared to 5.6 percent of white and 5.8 percent of Asian-Pacific Islander majors.[25] In 2014, *USA Today* reported the sobering data point that in 2015 only one of the 78 combat arms battalion command openings would be filled by a black officer.[26] These combat arms battalion

command opportunities are a key developmental job for many future general officers. LTCs Remo Butler and Irving Smith III presented several reasons for the lack of black diversity in the officer ranks.[27] Although a full detail of those reasons is beyond the scope of this article, one assessment that both of them repeat is that mentorship is a way for the Army to overcome these disparities.[28]

Compared to the national population, females are also underrepresented in the Army and officer ranks. Females only account for 16 percent of officers, a figure that has not increased since 2002, and only 7 percent of general officers.[29] Once again, mentorship arises as a key tool to increase female representation and promote their success.

In a *Forbes* article, Heather Bresch, an extremely successful female business CEO, expressed her thoughts on mentorship:

> *Looking back, I realize that the first decade of my career was somewhat happenstance. I fell, or lucked into, some exciting roles and for this I am grateful. However, at the start of my second decade at Mylan I realized I needed to be much more purposeful about reaching my goals — and be more ambitious about the goals I set for myself. Finding a mentor allowed me to do that. My advice to anyone — but I think this is even more important for women — is to find mentors, whether inside or outside your company, that can be a sounding board for discussion about your career, help you navigate the curves in the road, and empower you to think bigger about what you can achieve than you might be able to visualize for yourself.*
>
> **— Heather Bresch**, CEO of Mylan[30]

The greatest evidence to support mentorship benefits for females and minorities are testaments from successful minorities and females such as Bresch. They report having mentors at a much higher rate than their white male counterparts, which indicates that it is often key part of their success.[31]

Hispanics will be the next major challenge for the Army's diversity program. While traditional diversity programs and research have focused on blacks and females, Hispanics are actually the fastest growing minority in the U.S.; their population has nearly doubled over the past decade. While they are 17 percent of the U.S. population, they only account for 11 percent of the total Army force. In comparison, blacks are 12 percent of the U.S. but 21 percent of the Army. As the U.S. Hispanic population continues to grow, it will be imperative for the Army to take measures to increase Hispanic representation in the enlisted and officer ranks. If the Army fails to make Hispanic representation a priority, it will find itself with an ethnocentric senior leader population that is even less representative of the nation than it is now.

Altogether, blacks, females, Hispanics, and other minority groups will benefit from a formal mentorship program because of a phenomenon known as cultural bias. Evidence shows that mentors of all races and genders usually favor white male mentees over minorities and women. Cultural bias manifests itself as a "good old boy" network, where white males have an advantage over minorities and women. Two recent studies demonstrate that this phenomenon is still prevalent.

The first study surveyed a body of students and found that a majority of minorities and females perceive bias in mentoring while a majority of white males do not. The study found that these perceptions of bias "are a serious barrier to developing racial, ethnic, and gender diversity in leadership positions."[32]

Another study confirmed that cultural bias is not only perceived but is real. In the study, professors were sent generic emails from perspective students requesting mentorship about a research problem. The names of the prospective students were randomly changed to signify race and gender. The study found that in private institutions, minorities and females were discriminated against 16 percent more than their identical white male counterparts.[33] A formal mentor program that assigns mentors based upon career information and professional goals would reduce the effects of race, gender, and other cultural biases, and ultimately increase representation of minorities and females across senior ranks of all branches.

Recommendations for Execution

In 2005 the Army G-1 launched the Army Mentorship Program. The program was a website suite that allowed members to upload their profiles, search for mentors or mentees, engage in chat room discussions, and access training and resources. By 2007, less than 1 percent of Army Knowledge Online users utilized the website and it was deemed a failure.[34] The website is no longer active. Other attempts at online mentoring have also fallen short. CompanyCommand.com and PlatoonLeader.com were both initial successes and then lost more than 90 percent of their membership when they were forced to migrate to .mil domains due to operational security. Solutions like MyVector and milSuite are locked behind CAC-enabled security features that end up leaving them unused, disorganized, and poorly maintained. The Army also does not distinctively teach mentorship as part of its PME courses which include the Basic Officer Leaders Course (BOLC), Captains Career Course (CCC), or Command and General Staff College (CGSC). For all intents and purposes, an Army mentorship program and formal mentorship training does not exist.

It is reasonable to assume that the military's ineffective professional development efforts add to the frustrations of the highly motivated but disengaged professionals who leave our ranks.

In 2010, Brad Johnson and Gene Anderson also observed a lack of mentor programs in the U.S. military. They noted that most mentoring occurs happenstance without a command level strategy; senior leaders do not "differentiate the mentor relationship from sponsorship, coaching, counseling, and leadership;" and that "some officers equate mentoring with exclusivity, unfairness, and cronyism."[35] In light of their evidence, Johnson and Anderson made the following recommendations for implementing formal mentoring in the U.S. military:

- Develop a master strategy before implementing mentoring programs;
- Avoid mandatory programs — facilitate a sense of choice;

- Demonstrate top-down support for mentoring;
- Develop a mentoring continuum;
- Select mentors carefully; and
- Develop high-quality training programs for mentors.[36]

Although the Army's 2005 mentorship program failed, it can be successful if it re-launches and implements the recommendations of Johnson and Anderson as part of a master mentoring strategy. As part of a master strategy, any formal mentoring programs should be voluntary. This voluntary participation is one of the most difficult parts of an effective Army-wide program. The dilemma is that the program must quickly reach a critical mass of participants in order to be successful, but mandatory or coerced enrollment will diminish the effectiveness of the program. Participants should have a choice to participate, but the 2005 Army Mentorship Program demonstrates that a program will fail if there is not enough pressure to participate. In order to balance participation and a sense of choice, there must be strong command support from senior leaders, the program must be advertised, mentor training must emphasize the benefits of the mentor program, and the program must be simple.

In the same way that the Army teaches doctrine or leadership during PME, those same schools should incorporate at least one distinctive lesson on mentorship. In addition to highlighting the benefits of mentorship, lessons can also educate students on mentorship best practices and the mentorship initiation and development processes. Training during PME would be the first level of training required to be a mentor in the program, and students can then voluntarily sign up for the Army mentor program as a mentor and mentee. Mentor pairing could be completed by a pairing algorithm or by a mentor manager. In this way, mentorship education and programs would be the first steps in breaking the culture of haphazard mentorship.

As an example, a CCC student would receive mentorship training and volunteer to sign up for the program. These captains could potentially be assigned mentees from the local BOLC and possible mentors from the CGSC, as long as all involved were volunteers. Lieutenants would have captains as mentors and captains would have majors as mentors. As a non-chain-of-command mentor, these senior officers could provide mentees with invaluable advice, guidance, and feedback. Similar programs could be implemented in NCO Education System courses. In an ideal scenario, with 90 percent or better participation, almost every leader in the Army would have a mentor. In addition to traditional one-on-one mentorship, group mentorship programs can also be used to connect more senior officers and NCOs with larger groups.

We could also revisit and revamp the online Army mentorship program. The chat forums on the website digressed into inappropriate chats whose topics included "bi-sexuality, military pagans, gripes, and complaints."[37] These few topics accounted for a majority of the discussions. In order to be successful, the Army must implement training as a prerequisite for being a mentor and provide the appropriate level of leadership oversight. In addition, any in-person or online Army mentorship program should be a professional program led by dedicated and educated leaders.

Another example of a current model for an online program is MilitaryMentors.org, a social network that connects military professionals to each other and to professional development resources. Founded in 2015, the network functions similar to a dating site or an online gym membership and creates a venue for verified current military members to meet and create connections for professional development. No CAC readers or desktop work computers are involved — just a simple, secure, mobile interface. Of note, MilitaryMentors was started by two Army officers who have both education and experience in human behavior change, psychology, business management, and leader development. This enhances the site's ability to foster and sustain a community of military professionals through research-based self-improvement and group development. The site is currently open for users now. As a testament to its potential effectiveness, LTG Kenneth Tovo, commander of the U.S. Army Special Operations Command, utilizes MilitaryMentors staff as instructors during his quarterly Young Lions Mentorship Program.

The Army also already has some successful local mentorship programs. One example is the West Point Sponsor Program. As volunteers of this program, freshmen cadets are assigned sponsor families from the staff and faculty of the U.S. Military Academy at West Point, N.Y. The sponsor family provides the cadet with a "home away from home," and the sponsor (a captain, major, lieutenant colonel, or colonel) provides mentorship and guidance to assist the cadet during his or her first few years at West Point. The Quartermaster Corps also has a formal mentorship program for new warrant officers. Additionally, some subordinate commands have division- or brigade-level mentorship programs and some organizations such as The ROCKS, Inc., provide mentorship for minority officers.

Programs such as the West Point Sponsor Program, Quartermaster mentor program, and others like it are great examples of successful mentorship. Unfortunately, there are many more areas of the Army that do not have mentorship programs. Furthermore, many of these programs are distinct and not mutually supportive even though they could benefit from similar training tools and resources. An Army-wide mentor program must support a continuum of local programs. As an overarching program, there should be an Army-wide mentor pairing application that links mentors and mentees across branch or brigade boundaries. Simultaneously, the program must also support local priorities such as linking new warrant officers with chief warrant officers, cadets with faculty members, or retiring NCOs with veteran leaders in corporations.

Conclusion

The Army has a long tradition as America's premier leadership institution. Teaching, coaching, and mentoring is a core competency within this leader development model, yet many Soldiers are unsatisfied with the mentorship that they receive. Furthermore, cultural values of younger generations and the changing demographics of America will continue to

challenge the Army's leadership development strategy. The Army must adopt an effective formal mentor program in order to improve leader development, leverage the power of millennials, and increase representation of minorities and women.

The 2005 attempt to implement an Army Mentor Program failed, but senior leaders should examine the failures of that program and use its lessons learned to implement a more effective Army mentor program. The new program should be voluntary, but participation should be highly encouraged — not through coercion but through mentorship training, advertising, and support from senior leaders. The Army-wide program must promote and support a continuum of local mentor programs at subordinate commands, within different branches, and at education institutions. Mentors must be selected and paired carefully by commanders and human resources personnel. Furthermore, effective mentor and mentee training is mission essential and should be incorporated into PME, online training, mobile team training, and mentor events.

Ultimately, most senior officers and NCOs are eager to mentor junior leaders. In the same breath, many junior leaders are eager to receive that mentorship. An effective Army mentorship program could connect these mentors and mentees while providing them the resources and training necessary to develop strong and long-lasting relationships. The Army should establish an effective mentorship program in order to maintain its tradition as a premier leadership institution.

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Do Your CP and Command Philosophy Support Mission Command?

MAJ JAMES P. DEVLIN

A company's ability to accomplish its assigned missions is directly related to command emphasis on reporting and communication. Higher-echelon commanders must regularly convey expectations in order to allow subordinate commanders the ability to execute disciplined initiative through mission command and their command posts (CPs). Success in the decisive action training environment (DATE) requires commanders to prepare and train their subordinates to employ the proper tactics, techniques, and procedures (TTPs). More importantly, it requires that leaders at all echelons understand the construct of decisive action, unified land operations, and mission command, and how they vary from the counterinsurgency fight that has dominated our operations and training for the past decade.

Unified Land Operations and Mission Command

Army Doctrine Reference Publication (ADRP) 3-0, *Operations*, defines unified land operations as how the Army seizes, retains, and exploits the initiative to gain and maintain a position of relative advantage in sustained land operations through simultaneous offensive, defensive, and stability operations in order to prevent or deter conflict, prevail in war, and create the conditions for favorable conflict resolution. Unified land operations stress the art of mission command, which is the related tasks and systems that develop and integrate those activities enabling a commander to balance the art of command and the science of control in order to integrate the other warfighting functions. The six principles of mission command are:[1]

- Build cohesive teams through mutual trust,
- Create a shared understanding,
- Provide a clear commander's intent,
- Exercise disciplined initiative,
- Use mission orders, and
- Accept prudent risk.

U.S. Army Soldiers assigned to Multinational Battle Group-East's Forward Command Post call for a medical evacuation during air assault training in Gracanica, Kosovo, on 10 May 2017.

Photo by SPC Adeline Witherspoon

Companies and their CPs (as a system) must understand unified land operations and the principles of mission command. Additionally, there are three critical elements that a CP should track, monitor, and control — **tactical infrastructure**, **sustainment**, and **casualty care and evacuation**. It is irrelevant whether you are conducting a deliberate attack, area defense, or stability tasks — all of the critical elements remain constant and must be monitored by commanders and their CPs.

Tactical infrastructure refers to the equipment, facilities, and maintenance of units at the company and battalion levels. Tactical infrastructure is a crucial part of creating a shared understanding and operational framework for subordinates and subordinate units to operate. Platoons and companies may have varying levels of supply of water, food, fuel, ammunition, and parts on hand; understanding the status of these and their impact on current and planned operations is critical. A company operating as part of a brigade combat team during a DATE exercise is far different than a company occupying two or three fixed sites in Iraq or Afghanistan and being supported by routine combat logistic patrols, contracted services, large generators for power, and trash removal. There are, however, some important lessons learned from our recent deployments that must be remembered and directly apply to DATE, specifically concerning stability operations.

Sustainment is the provision of logistics, personnel services, and health service support necessary to maintain operations until successful mission completion. Successful sustainment enables freedom of action by increasing the number and quality of options available to the commander. Sustainment is essential for retaining and exploiting the initiative."[2] Sustainment has routinely been a friction point; it has also caused commanders to change their plans or fail. Within a battalion, organic assets are very limited. While the brigade can reinforce the capacity of a battalion, it should not be the first choice. Commanders and staffs need to critically think through the requirements and challenges of each operation. Since every unit will need to be capable of conducting offensive, defensive, and stability operations, staffs need to be able to forecast requirements that allow both battalion and company commanders to understand capabilities and limitations. This levels expectations and provides a framework for proper resource allocation.

Casualty care and evacuation — Casualty evacuation (CASEVAC) "involves the unregulated movement of casualties using predesignated or opportune tactical or logistic aircraft and vehicles."[3] CASEVAC and casualty treatment must be clearly defined, planned, articulated, and rehearsed at all levels. Long gone are the days of calling in a nine-line and getting immediate medical support for one or two casualties. The ability to drop everything and wait for medical evacuation (MEDEVAC) aircraft is outdated. Units should be able to fire, maneuver, and report while executing CASEVAC operations without reliance on MEDEVAC aircraft.

When a company sustains casualties, ideally, it continues and completes the mission. Once it has sufficient combat power and security, then casualties are collected and consolidated for movement. If possible, the company executes its primary mission while simultaneously executing CASEVAC. In a DATE, the company is responsible for taking the casualty from the point of injury to the battalion casualty collection point (CCP) — whether it is the forward aid station (FAS), main aid station (MAS), or battalion aid station (BAS). Each individual Soldier is responsible for conducting self-aid, providing buddy aid, and helping medics provide care as necessary. Generally, the first sergeant will control the CCP and lead the effort to stabilize and transport to the battalion. Once at the BAS, it becomes the battalion's responsibility to stabilize, triage, and transport the patient(s) to an ambulance exchange point (AXP). From there, it becomes the brigade's responsibility.

Photo by SPC Nathaniel Nichols

Soldiers with the 173rd Airborne Brigade unload supplies while conducting a logistical resupply mission during exercise Saber Junction 16 in Hohenfels, Germany, on 17 April 2016.

Company CPs are a tool that enable commanders to execute mission command. Tactical infrastructure, sustainment, and casualty care and evacuation are elements that have been linked to functioning CPs and mission command. Deploying to a Combat Training Center (CTC), such as the Joint Multinational Readiness Center (JMRC) in Germany, puts an emphasis on the importance of command posts. For a BCT to be successful in a DATE, the CTC stresses the unit's ability to synchronize its CP with unified land operations and mission command.

Observations of CPs at JMRC

"It was the sixth day of force on force and I was not sure why I joined the Army; I couldn't keep my eyes open and would kill for a shower and a good night of rest. Through all of this, somehow my equipment and my unit's equipment was still working; personnel were accounted for; chow, fuel, water, ammo kept showing up; and I hadn't seen my battalion commander in three days. How was this even possible? It was possible because

my chain of command and I emphasized command post operations. If we didn't deliberately address command post operations before and during our DATE rotation, we would not have been able to maintain combat power, execute disciplined initiative, and/or destroy the OPFOR (opposing force)."

— CPT Kenneth Schmedlap

The principle difference between average and above average units at JMRC is their ability to execute effective CP operations and enforce timely and accurate reporting. A critical tool is to establish and clearly define reporting requirements. The units at JMRC that execute successful DATE rotations establish reporting requirements and vigorously enforce them. This will focus a unit, provide clarity of purpose, and empower Soldiers. If the reporting requirements are important to the commander, they will be done. Battalion and company commanders need to educate their subordinate leaders on how the reporting requirements paint the picture (assist in visualization) for them and enable the staff to recommend courses of action that support the battalion's operations. For example, when conducting defensive operations, the battalion and company commanders developed nested reporting requirements that were tied to the steps of engagement area development. Developing those reporting requirements allowed the chain of command to identify potential issues and develop plans to mitigate those issues. This was particularly evident when units were reporting percentage of completion on obstacles. This allowed the commanders to spot check the obstacles to confirm or deny their intent was being met, which resulted in one of the few elements to successfully employ obstacles that helped defeat the enemy elements.

Another example of how reporting and CP operations enabled the company to synchronize and integrate operations is through the use of sustainment reporting. The company executive officer (XO) created a reporting timeline and criteria that was vigorously enforced. The company would then spot check the reports for accuracy by inspecting the subordinate elements. The commander, first sergeant (1SG), XO, and fire support officer (FSO) would rotate inspections daily to get a different perspective and validate "ground truth" for each platoon. By rotating inspecting personnel, the company was able to accurately track its combat power and maintain a high level of operational readiness. This unit's success would not have been possible if it did not understand what a company command post does and how it should operate.

What is a Command Post?

A CP is a unit headquarters where the commander and staff perform their activities.[4] Each CP performs specific functions by design as well as additional tasks the commander assigns. Common activities of the CP include: maintaining the common operational picture; controlling operations; assessing operations; developing and disseminating orders; coordinating with higher, lower, and adjacent units; and performing CP administration duties. While defined CP and associated tasks as previously listed are at the battalion and higher level, the CP at the company level does perform many of the same activities. The major reason for the difference is that the company does not have a staff; however, it does have personnel available to man the CP and assist in mission command.

Manning of the Company CP and Associated Duties and Responsibilities

Every company has the personnel, expertise, and equipment to execute CP operations. Lack of prioritization and manning directly impacts the preparedness and effectiveness of the company CP. CP personnel support commanders, assist subordinate units, and inform units and organizations outside the company headquarters. CP personnel operate the commander's mission command system by supporting the commander in performing those aforementioned tasks. The commander needs to give clear instructions on the roles and responsibilities of his headquarters and ensure that the platoons are capable of meeting their reporting requirements.

Below are some examples of duties and responsibilities of CP personnel:

XO — The XO is second in command and primarily assists the commander in mission planning and accomplishment.

The XO:

* Assumes command of the company as required;
* Ensures that tactical reports from the platoons are provided to the battalion tactical operations center (TOC);
* Locates where to maintain communications with the company commander and the battalion;
* Along with the 1SG, plans and supervises the company's sustainment operations and ensures that pre-combat inspections (PCIs) are completed;
* Plans and coordinates logistical support with organizations outside the company while the 1SG does the same internally;
* Coordinates with higher, adjacent, and supporting units;
* May aid in control of critical events of the mission (such as passing of lines, bridging a gap, or breaching an obstacle) or assume control of a platoon attached to the company during movement;
* May lead a quartering party, an element consisting of representatives of various company elements, to precede the company and reconnoiter, secure, and mark an assembly area.
* May lead a detachment with other tactical tasks such as shaping or sustaining force leader in a company raid or attack, control company machine guns, or a mortar section;
* May also lead the reserve, lead the detachment left in contact during a withdrawal, or control attachments to the company; and
* May serve as movement control officer or pickup zone (PZ)/landing zone (LZ) control officer.

1SG — The 1SG — the senior NCO and normally the most experienced Soldier in the company — is the commander's primary tactical advisor and the expert on individual and NCO skills.

The 1SG:

* Helps the commander plan, coordinate, and supervise all activities that support the unit mission;
* Operates where the commander directs or where he/she

Photo by SGT Devon Bistarkey

Troopers assigned to the 3rd Squadron, 2nd Cavalry Regiment, along with Soldiers from the 173rd Airborne Brigade, evacuate a casualty during a joint force entry exercise at Hradcany Air Field, Czech Republic, on 29 April 2017.

can best influence a critical point or what is viewed as the unit's decisive point;

* Supervises routine operations (can include enforcing tactical standing operating procedures [TSOPs]; planning and coordinating both training and unified land operations; and administering replacement operations, logistics, maintenance, communications, field hygiene, and CASEVAC operations);

* Supervises, inspects, and influences matters designated by the commander as well as areas that depend on his expertise such as Soldier care, force protection, security, and accountability;

* Assists the XO and is prepared to assume the XO's duties if needed; and

* Leads task-organized elements or subunits for the company's shaping effort or other designated missions.

Radio-Telephone Operator (RTO) — The RTO is a crucial combat multiplier who is essential to facilitating communication for the platoon and company. Even though every Soldier should be capable of basic filling and manipulation of all issued communication equipment, the RTO's role is more in depth and complex.

The RTO:

* Coordinates with the higher unit for retrieving of proper communications security (COMSEC);

* Serves as the subject matter expert to provide unit-level training;

* Protects and accounts for COMSEC devices;

* Is the commander's recorder and note taker and is capable of moving with and responding for the commander on multiple nets; and

* Is responsible for briefing portions of paragraph 5 of the operation order (OPORD).

FSO — The company FSO integrates all fires to support the commander's scheme of maneuver. Although not the primary shooter for the company, the FSO must be an expert at locating targets and adjusting tires.

The FSO:

* Plans, coordinates, and executes fire support;

* Advises the maneuver commander on fire support matters;

* Keeps key personnel informed of pertinent information;

* Trains the fire support team (FIST) and forward observers (FOs) in applicable fire support matters;

* Requests, adjusts, and directs all types of fire support;

* Ensures that the fire support plan and/or fire support execution matrix is prepared and disseminated to key personnel;

* Allocates FOs and other observers to maintain surveillance of targets and named areas of interest; and

* Provides emergency control of close air support (CAS) missions in the absence of qualified Air Force personnel (air liaison officer [ALO], enlisted terminal attack controller [ETAC], and/or airborne forward air controller).

FSO NCO — The company fire support NCO is the senior enlisted assistant to the company FSO and acts as the company FSO in his absence.

The FSO NCO:

* Supervises and trains all enlisted section members on the

maintenance and use of their equipment. He must also be able to perform all the duties of the FSO.

When the appropriate divisions of labor in the headquarters occur, it allows all functions of a CP to be accomplished. Once each person is clear on each other's responsibilities, then a unit can begin to operate efficiently. When personnel know what they are required to do, this reduces unnecessary duplication of effort and empowers subordinates to act decisively and take initiative within the commander's intent.

Daily Reporting Requirements That Enable Mission Command

Building a foundation for your unit to operate is a big key to success. If we, as leaders, are unable to provide guidance and a daily framework, we will be engaging in things that someone else can manage. Daily reporting requirements and the use of SOPs are a great start to enabling mission command and disciplined initiative. It provides commanders the ability to observe their unit, receive appropriate information, and command accordingly. This allows subordinates to effectively and efficiently manage their elements' time.

Training of the CP Prior to DATE Rotation

Training at home station is as simple as building a shell CP within your company area. That is the time to work on standardizing your SOPs. Field Manual (FM) 3-90.6, *The Brigade Combat Team*, states that all CPs have the responsibility to conduct the five basic functions of information management (IM):

- Collect relevant information;
- Process information from data to knowledge;
- Store relevant information for timely retrieval to support command and control;
- Display relevant information tailored for the needs of the user; and
- Disseminate relevant information.

All these principles can be exercised in the garrison environment and provide the framework for subordinates to report and execute, thus allowing the commander to be freed up to command.

To train and/or rehearse the principles of mission command, recommend developing and implementing standardized warning order (WARNO) and OPORD shells, an all-weather terrain model kit, and tracking boards. These tools, if regularly used and well rehearsed, create efficiencies and increase capacity so that the unit is less likely to be overwhelmed with the high operations tempo during DATE rotations.

When your unit executes a training exercise, it is imperative to work established systems in your CP. This can alleviate many issues that typically occur during a DATE rotation. These reporting and battle rhythm events should be SOPs that become ingrained in the subordinate leaders and the personnel staffing the CP. Validation exercises prior to CTC rotations are an effective means to practice these functions across multi-echelons and flatten the learning curve.

How to Evaluate the Effectiveness of the Company CP

Metrics are an important tool to track and evaluate a subordinate unit's effectiveness in executing elements of mission command. The table on page 20 is an example of metrics commanders have used as a forcing mechanism to implement the principles of mission command; this one was used by JMRC's Timberwolf Maneuver Observer-Coach-Trainer Team to evaluate platoons and companies. If units deliberately implement these metrics into their daily operations, units and their leaders will be able to understand their strengths and weaknesses. This allows the unit to identify issues and take appropriate actions.

Successful command posts operate to facilitate the commander's requirements. A Soldier trained to track platoons and keep the organization reporting and executing on schedule is a vital asset that provides clarity in a CP. The senior person in the CP can quickly receive information about personnel, equipment, classes of supply, the status of platoon OPORDs, rehearsals, and PCIs, to name just a few areas. That individual can then quickly relay necessary information to higher headquarters or the commander to enable him to focus efforts on the platoon that may require more leadership involvement. This system also provides the commander with the information required to make decisions quickly upon returning to the CP. A well-trained RTO or Soldier running the CP can quickly brief the commander on all tasks because reports are received and information is updated and accurate. For example,the commander returns from a battalion briefing and is told the status of each platoon, all attachments, and any relevant commander's critical information requirements. The RTO then reads the level of completion for each battle position, all fuel levels, the time left for each engineer asset, the status of all logistic packages, etc. When all this happens automatically and the commander receives the required relevant information, the CP is operating as defined and intended, enabling mission command.

Conclusion

In closing, a company's success is directly related to the degree its CP enables mission command. A unit's ability to understand multiple variables — especially CP operations, mission command and unified land operations — allows it to develop, train, rehearse, and enforce reporting requirements through the CP. A properly resourced and integrated CP allows for a smooth integration and facilitates mission command. Effective command posts are the key to successful DATE rotations.

Notes

[1] ADRP 3-0, *Operations* (November 2016).
[2] Army Doctrine Publication (ADP) 4-0, *Sustainment* (July 2012).
[3] Army Techniques Publication (ATP) 4-25.13, *Casualty Evacuation* (February 2013).
[4] ATTP 5-0.1, *Command and Staff Officer Guide* (September 2011).

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Example Metric to Evaluate Platoons and Companies

	Red	Amber	Green
1) Pre-Combat Checks (PCCs)	None conducted; did not inspect one or more of the areas required for amber rating; did not attempt to correct deficient areas.	Pre-fire checks conducted; individual and crew-served weapon test fires conducted; load plans inspected; camouflage applied; performed preventive maintenance checks and services (PMCS); commo checks of all nets; graphics checked.	Progress or preparations tracked and reported to higher; deficiencies re-inspected; Soldier back briefs conducted.
2) PCIs	None conducted; did not inspect one or more of the areas required for amber rating; did not attempt to correct deficient areas.	Next echelon leadership conducts PCI then PCC; subordinate unit back briefs; inspection oriented on mission-specific areas; time available to correction deficiencies and make line of departure (LD).	Commander (CDR) issues criteria in OPORD; 1SG and CDR inspect different items across crews; NCOs expanded OPORD information by identifying implied tasks associated.
3) WARNO	None issued; did not identify timeline; did not specify tactical tasks to be accomplished; did not define area of operations (AO).	Subordinate units understand tactical task; special teams identified; timeline issued feasible and acceptable.	Subordinate leaders identify implied tasks; team-level rehearsals begin based on information; subordinate leaders generate additional options for leadership.
4) OPORD	No orders issued. Failure to develop any paragraph or to restate essential tasks or purpose.	Maximizes available time thru use of WARNOs and fragmentary orders (FRAGOs). Five-paragraph order developed through analysis of higher order. Assigned task and purpose to subordinate elements.	Analysis of implied tasks addresses further development of branches and sequels.
5) Map and Graphics	Not done. No refinement of graphics. No dissemination or briefings of situation template (SITEMP) and/or graphics not issued to all subordinate elements or attachments down to squad/vehicle level.	Graphics support task and purpose; scheme of maneuver and scheme of fires disseminated to all leaders and attachments.	Graphics support branches and sequels; issues a refined SITEMP; issues a refined decision support template (DST); disseminates consolidated graphics.
6) Direct Fire Control Measure (DFCM) Use and Effectiveness	None identified; did not prevent fratricide.	Coordination measure to deconflict elements; echelon of fires is feasible; use enables cross-talk; objective is clearly understood and well developed.	DFCMs are refined and validated during execution; target reference points (TRPs) identified are easily understood across the formation; threat vs terrain method analyzed and appropriate method selected.
7) Rehearsals	None conducted; did not inspect one or more of the areas required for amber rating.	Reinforces CDR's and subordinate units' task and purpose, scheme of maneuver, scheme of fires, scheme of support; integrated actions of subordinate elements throughout operations; identified the enemy's most likely and most dangerous courses of action (COAs); compositions, dispositions and strength; visually depicts graphics, terrain, enemy and friendly forces during rehearsals; uses appropriate type and technique given available time and resources.	Discusses higher intent, scheme of maneuver, fires, and combat service support (CSS); addresses branch plans and contingencies; addresses the seven forms of contact; incorporates attached operational control (OPCON) units into rehearsals; subordinate units conduct generic, mission-oriented rehearsals, and conduct separate CSS and/or fire-support rehearsals.
8) Risk Management	Not conducted (alert chain of command); risk identified but no reduction by control measures nor any supervision.	Uses an effective SOP or conducts a formal risk assessment.	Continues to refine or regularly update risk level by FM or voice; tracks risk level in company/troop/battery/platoon CP; identifies risk-accidental and tactical and conducts an internal evaluation risk review and mission execution.
9) Escalation of Force (EOF) and Rules of Engagement (ROE) Violations	Violation occurs; ROE not disseminated; no EOF is established.	EOF/ROE defined and understood; all resources identified in the plan are on hand; standard is known at the lowest level.	Subordinate units expand TTPs to ensure EOF/ROE is accomplished; no issues occur during tactical execution.
10) Casualty Care and Evacuation	No plan for MEDEVAC or CASEVAC exists; "by SOP" is not adapted to METT-TC (mission, enemy, terrain and weather, troops and support available, time available, and civil considerations); DOW (died of wounds) occurs during execution.	CL VIII on hand; point of injury (POI) care is accomplished; CCPs are identified in the OPORD; plan accounts for MEDEVAC and CASEVAC through ROLE II.	Gaps in capabilities are identified and coordinated for through higher headquarters; transition from MEDEVAC to CASEVAC option is seamless; replacements arrive timely due to company process being effective and efficient.
11) Effective Reporting	No situational awareness exists within the formation; battle damage assessment (BDA) not accurate; loss of communications for greater than 30 minutes with higher and/or adjacent units.	Timely and accurate reports sent to higher; situational understanding is accomplished at the higher headquarters; formation sustains tempo while maintaining situational awareness.	Recommendations generate additional options to the commander; additional resources applied to the fight based on accurate reporting; PACE (primary, alternate, contingency, emergency) accounted for redundancy and no loss of communications.
12) Boresight	Not completed every 24 hours	Completed every 24 hours to < minimum max weapons systems ranges.	Completed twice per 24-hour period at max weapons systems ranges.
13) Time Management	Subordinates given less than two-thirds of available time from the end of the OPORD and back briefs. WARNO issued but not complete or timely.	Subordinates given two-thirds of available time from the end of the confirmation brief; WARNO issued in a timely manner to alert subordinates of future operations; companies and platoons conduct generic rehearsals, PCC/PCI and logistics resupply based on the type of mission prior to receiving OPORD.	Subordinates given two-thirds of available time from the end of the confirmation brief; WARNOs issued that allow detailed parallel planning in subordinate units; the commander/staff assessing useful time as the amount of daylight.

Brigade Advising Against Daesh

CPT GERARD T. SPINNEY

The purpose of this article is to inform and discuss theater-specific variations for brigade advise and assist (A&A) missions throughout the Operation Inherent Resolve (OIR) theater. By sharing the successes and failures of our team over the past six months in Iraq, future A&A teams can better prepare for a challenging (and sometimes frustrating) mission set.

Team members' ability to communicate effectively in order to influence their counterparts to a desired outcome is the foundation for success for an A&A team. Our engagement experience can be broken down into three major phases: building the team, building initial rapport, and advising and assisting during combat operations.

Building the Team

The base of our five-man A&A team consisted of the troop commander, fire support officer (FSO), and company intelligence support team (CoIST) officer — representing three major warfighting functions: mission command, fires, and intelligence. Choosing the remaining two members presented multiple options for the team. We had two Soldiers who recently graduated from two months of Arabic culture and language class at Fort Campbell, KY, and we thought they could be force multipliers. Having a troop commander, FSO, and intelligence officer organized with two language and culture-trained Soldiers worked well for our mission.

Our unique five-man team presented challenges in regards to day-to-day administrative and support activities. We attacked this problem set by assigning each member of the team with specific focus areas. Both the FSO and CoIST officer were dual-hatted with focus areas. The FSO shared the focus of movement and maneuver with the commander, sharing the tactical planning and battle tracking responsibilities of the Iraqi Army (IA) brigade we were assigned. The CoIST officer, in addition to his intelligence responsibilities, focused on our communications with the IA and our higher headquarters. Our two Soldiers were responsible for the sustainment and protection of the team. A five-man team requires extra effort from all team members to be successful, but our distribution of the duties and responsibilities helped us concentrate on the mission at hand.

Building Initial Rapport

In the current theater, building initial rapport begins either at the IA unit's training center rotation (referred to as "building partner capacity" [BPC] sites) or during operations. We were fortunate to meet our IA brigade during BPC where they were training for their next operation.

The initial meeting with the IA brigade commander took place at the training center. We introduced ourselves and explained that we were there as enablers for him and his brigade. The commander had previously served with coalition force advisors and he was excited for the opportunity to work with us. Starting with the initial meeting, we began to observe him and his subordinate commanders, establishing our initial assessment of his brigade's capabilities.

After introductions and small talk about our backgrounds, we eventually started identifying how our partnership was going to work. We explained what we wanted out of the relationship and discussed the specific training and knowledge that our team collectively brought to the partnership. While we were versed in light infantry doctrine and training, he was a tank commander. We explained to him that based on his past mechanized experience, we would look to him, at times, as a mentor since he would be able to bring insightful perspectives to discussions. The brigade commander appeared surprised

Photo by 1LT Daniel Johnson

The author, CPT Gerard Spinney, speaks with his Iraqi Army counterpart from the Ninawa Operations Command prior to a security meeting at Camp Swift, Iraq, on 6 September 2016.

by our comments but seemed to take the comment to heart. Later in our partnership, he responded to our initial conversation by explaining many of his decisions. Although my counterpart frequently lectured us on his methods and decision-making processes, this allowed us to understand his thought processes, which later facilitated us in predicting how he would act/react while facing different problem sets during mission execution.

As we continued our assessment, we began to discuss our counterpart brigade's strengths and weaknesses. We were deliberate and meticulous during these conversations, ensuring we did not disrespect the commander. One way we would obtain specific information from him without making him feel like he was being interrogated was to specifically shape the questions. We would lead him to bringing up a certain topic of discussion. At times, this would take some dialogue before we would get to the topic we wanted to address. We had to be patient though. For example, one of our goals was to collect information on his maintenance company and maintenance plan for the upcoming operation. Instead of jumping directly to the question, we started by asking him about his battalion command time and his biggest challenges, assuming that maintenance would eventually come up. He immediately responded, "Maintenance of my tanks." He opened up the topic of maintenance and so we capitalized on his answer. As long he brought up the topic, the conversation could become more direct without it coming across as a specific interrogation about his maintenance program. My counterpart felt like he was developing us as military leaders while we were getting him to explain exactly what our higher headquarters expected from us.

Another advising practice we used early on in our partnership was the precise timing of questions. At this time during OIR, the Iraqi movements and operations were at a very consistent pace. This allowed for extra attention to be paid to the units that were at the training center (especially from our higher headquarters). Whether the requests for information (RFIs) were from squadron, brigade, or division, they were endless. As the brigade advisors who had to interact with our counterparts on a daily basis — never mind being capable of maintaining strong communication and trust with them during an upcoming operation — we had to pick and choose the RFIs to bring up with our counterpart. We would queue the RFIs based on our higher headquarters' priorities.

During one meeting, our counterpart briefed his role in the upcoming operation on a terrain model. This helped us comprehend his concept of the operation and his understanding of his brigade's task and purpose. His plan and what the coalition forces were tracking as the plan usually differed. Without telling our counterpart we had issues with his plan, we found creative ways to play devil's advocate. We would inquire about actions if there was resistance from this town. If ordered to go further south, how would he accomplish that? By doing this we were able to influence the commander to a more tactically sound course of action. Of note, the terrain model (built by the Iraqis and done quite well) was a valuable advising medium.

Logistical planning and preparation is significant in a mechanized infantry brigade. Our higher headquarters paid special attention to this aspect of our mission. The IA had a relaxed approach to logistical planning. We carefully shaped our discussions to meet our specific information requirements. We approached IA leaders about logistics carefully. We did not want to come across as criticizing the lack of planning or put them in an uncomfortable position. Leading up to the operation, fuel and maintenance became a topic of conversation every time we met. There were some questions we never got answered, and we had to just accept that. If pushed harder, our trust and strong partnership could have been in jeopardy. By the end, our counterpart knew logistics was a significant concern of ours.

The biggest facilitator for clear and effective communication was a linguist. Ensuring that the linguist knew the intent of the discussion prior to the engagement was essential. Before each engagement with our counterpart, we would take the linguist aside and go over the talking points for the discussion.

As noted earlier, effective communication with our Iraqi counterparts is critical. The biggest facilitator for clear and effective communication was a linguist. Ensuring that the linguist knew the intent of the discussion prior to the engagement was essential. Before each engagement with our counterpart, we would take the linguist aside and go over the talking points for the discussion. We would explain the task and purpose of the conversation and any necessary background information that needed. Rehearsing worked great for getting the most out of our conversations; however, we would caution others using this method. Do not let the linguist take the rehearsal and conduct the entire conversation himself. This happened on multiple occasions during phone conversations. The linguist would take the task and purpose given to him and execute the entire conversation with our counterpart and then hang up. This was incredibly frustrating because the linguist wouldn't translate any of the responses until after the conversation. He recorded only the first answer our counterpart would give him without asking any additional follow-up questions. There was no dialogue. This method would get AN answer but never THE answer we needed. These conversations usually left us with more unanswered questions than before we started. Rehearse with the linguist but ensure you control the conversation.

Advising During Operations

While we were at the BPC site, our A&A team was co-located with the division A&A team. The division A&A team advised our IA brigade's higher headquarters. Being co-located with the division advisors allowed us to get to know the key leaders in our brigade's higher headquarters. This interaction assisted our own efforts in helping the brigade leadership meet their commander's intent. We found the more we listened to my counterpart's commander (division commander) discuss the upcoming operation the more we understood what was

expected from our counterpart, which assisted us in our efforts. Spending time with the division commander was not only a valuable experience for us, but we obtained significant credibility with our counterpart who had witnessed our daily interactions with the division commander.

Once our IA brigade began combat operations, they were no longer task organized under their division headquarters. The new command relationship between our counterpart and his higher headquarters was more complex than the previous relationship. Our IA brigade was now attached to an operational command. This relationship separated us by two command levels within the advisor structure. Our counterpart's new commander was advised by our brigade commander, and our squadron commander was aligned to the division commander. The new dynamic command relationship, which had the operational commander playing the major role in planning, did not allow for the same direct access to our counterpart we had grown accustomed to. Additionally, our counterpart operated away from the coalition base during operations as he staged forward with his troops. The combination of lack of access while being geographically separated limited our communication.

When geographically separated, we advised and assisted over the phone. When our counterpart would return to the operations center to meet with his commander, we would meet with him to discuss operations. These chance encounters were sporadic but ranged from two to four visits a week. Besides sitting down face-to-face with our counterparts during these visits, all additional advising was conducted over the phone. With poor cell phone service in the area of operations and limited communication at the operations center, communication with our counterpart was significantly degraded.

Recommendations

As a brigade-level A&A team, you must have patience and a solid understanding of the Arab culture. These two attributes will help you advise and assist your counterparts. The challenge of a captain advising a colonel, or general, is ever present for obvious reasons but is not as significant as one would think; be comfortable with this relationship because of the level of education and preparation you have done. Between your training and knowledge, there are significant opportunities where you can advise and assist your counterpart. Collectively, you and your counterpart must identify and agree on how you can best assist him. Once you and your counterpart have identified the assist and enabling capabilities, the advising capabilities will present themselves. In our case, intelligence, fire support, and logistics were the three areas where we could advise and assist resourcefully.

If given the opportunity to build the rapport during BPC, move to the training areas every day and see the subordinate units in your brigade. Engage with the junior leaders of the battalions and you will learn about the brigade. In order to get a complete understanding of the brigade's capabilities, do not rely solely on the senior leader's point of view. In addition to getting out and speaking with the junior leaders, ensure that all of the equipment that you distribute to the brigade has been trained on. If they are not familiar with the equipment, they will not use it. We learned this the hard way when we issued satellite phones.

While planning for operations, get your counterpart to a terrain model and discuss the plan. Ensure that the plan he is receiving is similar to the plan that his commander is briefing to the coalition leaders. Use this time to build rapport. Ask leading questions to broaden the scope of your discussion. The more you get into the tactical mindset of your counterpart, the easier it will be to predict his movements during execution. We used the mentor/mentee approach on multiple occasions, and it helped us understand our counterpart's way of thinking, both tactically and strategically.

During operations, you must understand how to best integrate into the planning process. This is something we recommend you discuss with your higher headquarters prior to beginning the advising mission. Lastly, maintain daily communication with your counterpart, if only to ask how he is doing and what you can do for him. Most nights we met with him he clearly showed signs of a long day of operations, so we simply asked him how he was doing. Show genuine care and concern for him and his soldiers; he will reciprocate when you desperately need some information from him. If in-person contact with your counterpart is degraded, ensure you develop a strong communication plan and ensure that the cell phone on the PACE (primary, alternate, contingency, emergency) plan has the correct provider for the area you will be operating in. Our communication plan failed due to two reasons. First, there was limited cell service where our IA brigade was operating, and second, the lack of confidence and training with the satellite radios.

My last comment on advising during operations is that advising an IA unit currently in the fight is difficult with limited contact. If the brigade A&A teams are able to advise, assist, and accompany, it would significantly increase their capabilities. The IA units would benefit the most from allowing advisors to move forward to advise the IA brigade leadership from the brigade headquarters. The presence of advisors would build an increased sense of confidence in the units on the ground and their production would prove it.

Our IA brigade has been conducting offensive operations for five months. Our observations and recommendations are a result of six months of our brigade A&A mission. We spent one month building rapport and five months with our brigade conducting offensive operations. The purpose of this article is to inform and discuss theater-specific variations for brigade A&A missions throughout the OIR theater. Additionally, this article helped my team identify that some of our own advising methods and techniques needed revising and readjusting.

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RUSSIAN DEEP OPERATIONAL MANEUVER:

FROM THE OMG TO THE MODERN MANEUVER BRIGADE

LTC (RETIRED) LESTER W. GRAU

Russia stretches across 11 time zones and has the longest border of any country on the planet. Russia sees herself surrounded by hostility and has been invaded by the Mongols, Tatars, Vikings, Turks, Swedes, French, Germans, British, Austro-Hungarians, United States, and Japan. Over the past thousand years, the bulk of the invasions have come from the west and south. Much of the area in which Russia is most likely to experience combat is defined by rolling plains, forest, large rivers, and marshland. In some areas, urban sprawl will canalize movement. Russia lacks the comprehensive road network of Western Europe and the United States, and much of its transport is conducted on a well-developed rail and barge system. Much of current Russian military thinking is guided by the works of General Aleksandr Svechin (1878-1938). He posited that in the event of an invasion, Russia has vast areas where she can trade space for time — and then launch a powerful counterstroke once the enemy has exhausted his combat power and over-extended his supply lines.[1]

During the Cold War period, the Soviet and NATO use of nuclear weapons was believed highly likely. With the development of high-precision weapons, the probability of early use of nuclear weapons by both sides subsided; however, nuclear and high-precision weapons changed the nature of the future battlefield. The Soviet General Staff viewed future war as dynamic, high-tempo, high-intensity land-air operations that would extend over vast expanses and include new realms (such as space and the Arctic) and weapons of new physical principles. Tactical combat would be even more destructive than in the past and would be characterized by fragmented (очаговый) nonlinear combat. The front line would disappear as mobile groups, strong points, and maneuvering artillery fires would contest each other; safe havens and the deep rear would disappear. Nuclear war must be avoided as it could escalate to strategic exchange.[2]

The issue facing Soviet planners was how to make the enemy safe havens and deep rear vulnerable. A tank battalion can be more operationally effective combatting the enemy's laundry and bath units, depots, railheads, airfields, and water ports than going turret-to-turret with an enemy tank battalion. The issue was how to get the tanks behind the enemy combat forces to wreak destruction on his logistics and crucial infrastructure. The answer was the use of forward detachments at the tactical level and operational maneuver groups (OMGs) at the operational level. The Soviets had long considered the tank as the optimal exploitation weapon and during the 1930s designed and manufactured reconnaissance tanks (танкета); infantry support tanks (танки непосредственной подержки пехоты); light (лёгкие), medium (средный) and heavy (тяжёлый) main battle tanks; and long-range exploitation

tanks (танки дальнего действия). After World War II, the Soviets produced medium tanks and long-range exploitation tanks. The T-64 tank, a long-range exploitation tank, was as equally armed and armored as the T-62 medium main battle tank, but was smaller and lighter with a three-man crew and an operational range of 700 kilometers (compared to the 450 kilometers of a battle-ready T-62).

The theory of deep battle was that once artillery and the main attack breached the enemy defenses, a maneuver element would enter the breach and drive deeply to attack the enemy nuclear weapons systems, headquarters, logistics, infrastructure, staging areas, key terrain, and airfields — the thought being that an optimum air defense weapon is a tank attacking parked aircraft.[3] The attacking maneuver unit could be an air assault or a forward detachment. The forward detachment's mission was to avoid combat until it reached its objective.[4] A common forward detachment for a regiment was a reinforced tank battalion. Usually the regiment's forward detachment objective was 30-50 kilometers from the departure point. A common forward detachment for a division was a reinforced tank regiment.

The Soviets considered armies and fronts as operational-scale forces. Once the enemy defense was penetrated, the Soviets planned on conducting deep operations to destroy or seize enemy operational nuclear weapons systems, headquarters, logistics, infrastructure, staging areas, key terrain, airfields, ports, and crucial cities. The deep operation was to be undertaken by the OMG. The basis of the OMG was an armored unit heavily reinforced with self-propelled artillery, motorized rifle units, engineers, and logistics. An army OMG was built around a tank division or tank corps. A front OMG was built around a tank army with a mission of 150 kilometers or more depth.[5]

Comes the Crash

During the Cold War, the Soviet army was a huge force of 211 divisions. Many of these were cadre (mobilization) divisions that would only be fully manned at wartime. When the Soviet Union collapsed, the military was a low priority for the new leadership. Officers went without pay for six months at a time. No new equipment was procured, and existing equipment in the mobilization divisions rotted and rusted unattended. Popular support and admiration for the military and its officers disappeared as people wrestled with mega-inflation, the legacy of a no-win war in Afghanistan, an unpopular draft, concepts such as democracy and free-market capitalism, the creation of a small wealthy class, and rampant poverty. Former states of the Soviet Union declared independence and broke away. Many were hostile toward Russia and some joined NATO. Russia was smaller and had a population size similar to Nigeria — but still the world's longest border. Nobody wanted to import anything from Russia except oil, timber, and prostitutes. Russia's role as a superpower and regional power was lost, along with Russia's dignity.

Chechnya decided to join the list of breakaway states and regions, but its oil refineries and sweet crude oil were essential to what remained of Russia's economy. The Russian leadership decided to force Chechnya back into Russia despite the fact that there was not a single ready division in the entire Russian army. The result was predictable but still a shock to the Russian population. The Russian army was defeated. It came back, only to be defeated again. The infirm Russian president handed the keys of power to Vladimir Putin, a former KGB officer. Putin's ascendancy to the presidency coincided with the rising price of oil. Putin grappled with the economy and gained a popular following as a strong, charismatic leader. Putin sent the army back into Chechnya and, after a long struggle, brought it to heel. The economy strengthened; Russian military equipment and agricultural sales increased; and nations again began to take notice of Russia as a regional power. Putin restored Russia's dignity and its position in Eurasia.

The Russian military was still cumbersome, equipped with old equipment and old thinking. Russia needed a smaller, more capable force that could cover 11 time zones and protect the world's largest border. The old guard, consisting mainly of retired generals, wanted to maintain the oversized army with its cadre divisions awaiting mobilization to fight World War III. President Putin had other ideas. No longer could the country fight behind thousands of kilometers of interconnected trench lines stretching across the continent. He needed a smaller, better-trained, more lethal, highly mobile army capable of deploying rapidly where needed. The old guard resisted, but eventually the sweeping Serdyukov reforms were implemented. The regiment-division-army front model was replaced by the brigade-army-military district model. The maneuver brigade contains four maneuver battalions, four artillery battalions,

Figure 2 — Chechnya

two air defense battalions, an engineer battalion, a logistics battalion, and an electronic warfare company. It is more lethal than the regiment but not as lethal as the division. The advantage is that the brigade is much easier to move and deploy than a division, and it is designed for maneuver combat. The Russian army has retained some divisions which are deployed on critical avenues of approach into Russia or as part of the strategic reserve.

A Scaled Approach to Operational Maneuver

The Cold War is history. The Warsaw Pact is gone. Cold-War NATO, which was large, had a common commitment and focus and could man a long, deep continuous defensive front. Present-day NATO is small, with an ambiguous commitment and focus, and is mostly dispersed into small groups. The OMG is not a threat to NATO since there are no Soviet or Russian tank armies.[6] What may be a threat to NATO are smaller, scalable armored Russian formations well equipped with organic motorized rifle, artillery, air defense, engineer, electronic warfare, and support elements. While NATO and Russian forces have gotten smaller, the Russian forces have restructured, modernized, improved training and mobility, and developed a force that is capable for the current time. Operational maneuver is still possible, but it is scaled to meet the realities of today. The OMG mission may now be conducted by one or two tank brigades.

The Russian army still trains to conduct linear warfare but will not fight a future war involving thousands of kilometers of connected frontage. It is no longer as powerful as the Cold War Soviet army, but NATO is also considerably smaller and weaker. Future war will incorporate linear combat on critical axes and fragmented nonlinear combat elsewhere. Linear warfare is roughly analogous to U.S. football. An attacking and defending side face each other on line. After a short period of concentrated effort to gain or deny ground or advantage, both sides regroup and reform to try again. Nonlinear warfare is roughly analogous to European football (soccer). There is constant activity with players on the same team simultaneously attacking, defending, or transitioning between the two. Team members rapidly coalesce into temporary attack or defensive groups and then disperse again.

The Russians see that requisite superiorities of forces on main offensive and counteroffensive axes may be achieved by surprise, firepower, and mobility.[7] The Russians see nonlinear battle as combat in which tactically-independent battalion tactical groups and maneuver brigades fight meeting battles and cover their flanks with obstacles, artillery fires, and tempo. There are no safe areas, and combatants will suffer heavy attrition. Armies and divisions may influence the battle through employment of their reserves and long-range attack systems, but the outcome will be decided by the actions of battalion tactical groups and maneuver brigades fighting separately on multiple axes in support of a common plan or objective. Attacks against prepared defenses will be a rarity as neither side will be able to tie in their flanks or prepare defenses in depth.[8]

Historically, this is nothing new. Before the industrial revolution, armies fought using strong-point defenses and mobile forces. The mobile forces seldom had their flanks tied in since industry and agriculture were unable to field and support large field armies. Mobile forces patrolled their flanks while moving and refused their flanks while defending or preparing to attack. Following the Thirty Years War, European armies evolved to the fortress-depot system to supply their forces. Mobile forces were constrained by their distance from their depots. The genius of Napoleon was his ability to utilize nationalism and the nascent industrial revolution to create large conscript armies that lived off the land that they advanced over. However, by the time of the Crimean War, the improving industrial revolution and improved military technology led to the stalemate of positional trench warfare around Sevastopol. The American War between the States began as a war of maneuver that devolved increasingly into positional trench warfare, particularly in the east. World War I in Western Europe was the extreme example of positional trench warfare dominated by barbed wire, interlocking fields of machine-gun fire, and massed artillery. This was not so much the case in Eastern Europe, Africa, and the Middle East. World War I ended coincidently with the introduction of the tank that was supposed to eliminate the horrors of trench warfare by restoring mobility to the battlefield. This worked somewhat during World War II in Europe, particularly when used by the Soviet Union in the latter stages of the war. Still, terrain and prepared defenses blunted the tanks' mobility in all theaters. The introduction of antitank guided missiles during the Cold War further restricted maneuver war. Technology has proven a dialectic — the advances in one system are offset by the advances in its counter.

Armchair tacticians delight in comparing one system against another: tank versus tank or fighter-bomber versus fighter-bomber. One-on-one duels are seldom fought in warfare. The comparison needs to be aggregates of the effects of one side versus the aggregates of the effects of the other. This is what enables success and supports maneuver. Mass has an advantage all its own. Paying for the effects is an enabling factor as well. If one side can produce artillery rounds at a fraction of the cost of what the other side pays for its artillery rounds, one side can shoot more rounds than the other.

Another development of warfare is the "empty battlefield." Man began forming fighting formations to mass the effects of swords and spears and to steel the resolve of the non-resolute. Eventually, accurate, rapid-reloading firearms resulted in more space between combatants and a willing use of the shovel. More lethal weapons resulted in much broader formations, yet there is a point where combat resolve drops dramatically when proximity to one's neighbor (or sergeant) decreases. Mobile maneuver warfare will still require somewhat compact combined arms units, even as the lethality of the combatants increase.

That being said, the Russian maneuver brigade with its battalion tactical groups seems an optimal force for modern Russia. It offers increased mobility and lethality and can fight in the traditional linked-in fashion as well as fighting true maneuver warfare. It can also perform as part of or as an OMG. Still,

equipment and force structure do not automatically lead to combat effectiveness. Training and resolve remain essential ingredients.

Notes

[1] However, the current hundred-mile stretch between the Estonian border and the Russian major city of Saint Petersburg does not offer that option.

[2] V. G Reznichenko, Тактика [Tactics], Moscow: Voyenizdat, 1987, 63, 181, 194; Lester W. Grau, "Soviet Nonlinear Combat in Future Conflict," *Military Review*, December 1990, 16-17. The second article introduces the concept of the battalion tactical group (BTG), which is drawing current interest in Russian ground force tactics.

[3] Alternately, the forward detachment could infiltrate. The best English-language book on the development of Soviet tactical maneuver is David M. Glantz's *The Soviet Conduct of Tactical Maneuver: Spearhead of the Offensive* (London: Frank Cass, 1991).

[4] This is in contrast to an advanced guard, whose mission was to take on any enemy it met.

[5] For an in-depth treatment of the topic, see Glantz's *Soviet Military Operational Art: In Pursuit of Deep Battle*.

[6] The recently reconstituted First Guards Tank Army is not really a tank army. It is smaller and decidedly combined arms. It was so designated since it was one of the Soviet Union's premier armies from the Great Patriotic War (World War II against Germany) and the Cold War. It keeps a famous name alive in active service (if not the function) as does the U.S. 10th Mountain Division.

[7] This concept is not new, but was being seriously considered before the collapse of the Soviet Union. G. I. Salmanov, "Советская военная доктрина и некоторый вэгляды на характер война в защити социализма" ["Soviet Military Doctrine and Several Views on the Nature of War in the Defense of Socialism"], Военная Мысль [*Military Thought*], December 1988, 9.

[8] "Absence of a continuous front, considerable dispersal of the forces and presence of exposed flanks and large gaps all promote maneuver, bold envelopments, and deep encirclements, rapid advances on the enemy flanks and rear, and sudden and decisive strikes from different directions. The highly mobile character of modern battle means that protracted, carefully measured combat actions are not consistent with the potential of modern weapons and equipment and would hinder their effective employment. Contemporary combat emphasizes movement, marches, combat from the march, and dynamic mobile battle. Forces will often switch from combat to column formation to swiftly advance and maneuver widely to achieve varied goals and missions." Ibid, 60.

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PART II

INFANTRY ATTACKS AT NTC

COL BRIAN J. HARTHORN
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Author's Note: *This is the second of two articles sharing lessons learned, best practices, doctrinal discussion, and opportunities offered at the National Training Center (NTC) at Fort Irwin. Read Part I at: http://www.benning.army.mil/infantry/magazine/issues/2017/JAN-MAR/pdf/1)Farmer_InfAttack.pdf. This article covers the last three scenarios: Forcible Entry: An Airborne Interlude; Ambush at Bravo Pass; and Raid on Puma-1: Planning Backwards from the Objective.*

Forcible Entry: An Airborne Interlude

The ramp on the C-17 lowered and a blast of hot desert air smacked the paratroopers of "Team Fires" in the face. Through the red light they watched the Dual Row Airdrop System (DRAS) platform carrying an M119 105mm howitzer ease its way down the dual tracks and out into the darkness. Ten minutes later — P-Hour — nearly 700 paratroopers filled the night sky above Freedom Flight Landing Strip (FLS). In just a little over 10 minutes, the airborne infantry battalion task force descended on the remote airfield. Little groups of paratroopers (LGOPs) rapidly formed up into rifle squads, platoons, and companies. Teams "ISO-Lead" and "ISO-Trail" secured the east and west ends of the airfield. The same paratroopers who watched their M119 howitzer disappear only minutes earlier now began tearing at the lashings securing their guns and ammunition. Sappers, members of "Team Clear," did the same with a Bobcat as they prepared the light airfield repair package (LARP). They had slightly more than an hour to proof the airfield before the first air-land packages would begin arriving. Team Fires now had its guns in action and was responding to calls for fire from Team ISO-Lead, which was identifying approaching enemy forces counterattacking north of Objective X-Ray 1, one of many initial assault objectives which the airhead line comprised. The decisive operational force, Team Assault, was already in direct-fire contact with enemy forces on Objective Cleveland where the airfield infrastructure was located. As determined as the enemy was to put up a good fight, they simply could not reposition their crew-served weapons fast enough. At P+1.5 — only 90 minutes after the first

Photo by SSG Jason Hull

Paratroopers assigned to the 2nd Brigade Combat Team, 82nd Airborne Division and XVIII Airborne Corps conduct a joint forcible entry operation as part of Operation Dragon Spear at Fort Irwin, CA, on 6 August 2015.

Photo by SSG Jason Hull

A C-17 Globemaster III aircraft takes off following air-lands on the objective secured by a joint forcible entry operation for Operation Dragon Spear at Fort Irwin on 6 August 2015.

jumper exited a high-performance aircraft — the first air-land package arrived. With added mobility and firepower from high mobility multipurpose wheeled vehicle (HMMWV) gun-trucks, MRZR all-terrain vehicles, and Stryker Infantry Carrier Vehicles (ICVs), they would assist in expanding the lodgment around the newly created aerial port of debarkation (APOD). The faster they expanded the security perimeter around the landing strip, the sooner they could introduce even more combat power in support of coalition forces conducting operations to restore the international boundary between Atropia and Donovia. Over the next 24 hours, the paratroopers would successfully conduct offensive operations at four separate urban population centers in support of coalition objectives. A prepared enemy may have been able to defeat a single light infantry task force, but surprise was on the side of the paratroopers. The enemy security forces simply couldn't react fast enough to the introduction of so much combat power in such a short amount of time.

Observations — *Completed in March 2015, the C-17-capable Freedom FLS offers more than 67 seconds of green light to airborne task forces and a realistic austere APOD for all types of brigade combat teams desiring to integrate joint forcible entry, air-land, and lodgment expansion-related tasks into their rotational scenarios at NTC.*

Ambush at Bravo Pass

The lead element of the Stryker infantry battalion, the task force scouts, moved north mounted on its Strykers through the tight mobility corridor commonly referred to as "The Passage to India" or "PTI." They had not made direct-fire contact yet. If all went according to the plan, they would move north through the PTI and then turn west through Bravo Pass into Echo Valley. Once in Echo Valley, they would continue moving northwest toward the FSS Gap where the battalion would destroy a defending enemy mechanized infantry company. All was going well so far. In fact, it was eerily quiet. Why hadn't they at least received some enemy indirect fires? The lead Stryker Reconnaissance Vehicle (RV) reported over the battalion's operations and intelligence (O&I) net that there was a mine-wire obstacle crossing Bravo Pass. Before the S2 could reply, the trail vehicle of the scout platoon was destroyed by an enemy AT-13. They were trapped! All four of the platoon's vehicles were stacked on top of each other in a column formation with less than 50 meters between each RV. The lead vehicle was immobilized by the obstacle, and the trail vehicle was a burning hulk. Bravo Company, also moving in a tight column, approached behind the scout platoon. In less than five minutes its lead, fifth, and tenth ICVs were also destroyed by AT-5 fires. It was almost as if the AT-5 gunner was picking every fourth vehicle after the lead ICV to engage. To compound matters, the destruction included the catastrophic loss of two rifle squads, a weapons squad, two Javelins, and two M240B machine guns. A platoon was gone just like that. The remainder of Bravo Company's Infantrymen dismounted from their ICVs. The cold realization set in that they were in the middle of an L-shaped ambush.

An understrength enemy infantry platoon was positioned on the northern wall of Bravo Pass. They were the ones who destroyed the scout RVs with AT-13 fires. With the lead vehicle trapped against the obstacle and the trail vehicle destroyed, it was just a matter of time before they finished off the remainder of the scouts. Meanwhile, a pair of enemy BRDM-2s with AT-5s was positioned approximately three kilometers to the northeast. They had let the scout RVs pass by without a sound, and then they began picking off the Bravo Company ICVs starting with the lead vehicle and then working on every fourth vehicle afterwards. They didn't have to traverse their sights very far from one ICV to the next. Similar to the scouts, Bravo Company had been traveling in column with only 50 meters separation between vehicles. Despite the complex, canalizing terrain, Bravo Company had not dismounted its Infantrymen. The company thought it had a free ride through the passes and that the scouts would provide them advanced warning of any pending attack. Unfortunately, they had closed to within 200 meters of the trail scout vehicle so by default the scouts were no longer a forward reconnaissance element. They were now "canaries" falling by the wayside, providing only a few precious seconds of advanced warning of the impending disaster. While the Bravo Company's Infantrymen poured out of their remaining ICVs and attempted to locate the direction of the ambush, the battalion mortars went into action. The task force commander knew he had to get some suppression and obscuration between his column and the enemy defending the obstacle in Bravo Pass. Although they did not score any enemy battle damage, the mortars did provide effective suppressive effects and obscuration. The enemy's dismounted AT-13 gunners had to reposition, and the obscuration allowed the sappers from the attached engineer platoon to move forward to the obstacle. They were efficient breaching the mine-wire obstacle and within 15 minutes reported having a lane created. Through all of the excitement of breaching the obstacle while in direct-fire contact, they didn't notice that 800 meters to their west an enemy Family of Scatterable Mines (FASCAM) minefield was being deployed to reconstitute the blocking effect in the pass. Charlie Company didn't notice either and blindly drove through the breach lane into the FASCAM. In less than two minutes, nine ICVs with accompanying rifle and weapons squads were all destroyed. The company was combat ineffective. The Bravo Company Infantrymen were still alive, but almost all of their ICVs were

Photo courtesy of authors

Alpha and Bravo Passes clearly display the complex terrain overlooking the mobility corridors.

destroyed from the deadly BRDMs patrolling to their northeast. They still did not know where the enemy soldiers were because they continued to mill about in the low canalizing terrain. If they had simply moved up to the high ground dominating the pass complex, they would have seen the horror that was materializing still further to their northeast. Beyond the two AT-5 BRDMs, which were now black on ammunition after emptying their rounds into Bravo Company, was an enemy motorized infantry company (MIC). It was not just any MIC, but the very one the company had hoped to attack in the FSS Gap. Now it was moving southeast down the Silver Lakes Main Supply Route (MSR) at a high rate of speed. They circled out of sight like a curious shark before turning back to the southwest and then subsequently attacking into the rear of the battalion column. Fortunately, Alpha Company, informed of the fates of the other companies, had dismounted its Infantrymen and was able to position a couple of Javelins to destroy a platoon's worth of enemy fighting vehicles, taking the momentum out of the enemy's attack.

Observations — *Units must be in a fighting formation before they make direct-fire contact. This process starts during mission analysis with the identification of key terrain dominating complex, canalizing mobility corridors. In this case the rotational unit did not identify the terrain at higher elevations dominating PTI and Bravo Pass as being key terrain. Had they done so, they likely would have concluded that there was a distinct possibility of making contact with the enemy in either of these two locations. Identification of this probable line of contact (PLC) should have led to development of a probable line of deployment (PLD). This PLD should have served as a trigger for the task force scouts to utilize key terrain at higher elevations to gain a better vantage point to identify enemy forces in these two adjoining passes. Had they simply dismounted to the hills on either flank of the PTI, they would have detected both the enemy infantry force on the north wall of Bravo Pass as well as the two AT-5 BRDMs located further northeast of the passes. Instead, they traveled mounted in the canalizing terrain at low elevation and were destroyed in detail. Conducting time-distance analysis of the terrain to be traversed should have also shaped planning for reconnaissance in depth. Identification of the aforementioned PLD and corresponding requirement to dismount scouts to observe the far side of the passes should have resulted in a corresponding estimate of time required to conduct reconnaissance forward of the task force main body. This did not occur, and the next company in the order of movement traveled on the heels of the scouts. The scouts now could not realistically provide the next rifle company any advance warning of enemy contact, and the lead rifle company compounded a bad situation by continuing to move into the kill sack of the enemy's ambush.*

If a unit does not have shared understanding of the enemy's disposition, then this situation mandates that the unit utilize a movement-to-contact method of attack. This means that the battalion should have a reconnaissance element to find the enemy, a platoon-sized maneuver element to act as a forward security element (FSE), and a company minus-sized element (usually the parent company of the FSE platoon) to act as the battalion's advance guard (AG). The battalion's two remaining companies should be echeloned to the right and left rear respectively of the AG, creating a battalion task force wedge formation capable of reacting to enemy direct fire contact in almost any direction. The FSE is tasked with destroying the lead enemy platoon it comes into contact with and subsequently fixing the next enemy force it comes into contact with. The AG is tasked with destroying remnants of the force fixed by the FSE and subsequently fixing the next follow-on enemy force it comes in contact with. This allows the battalion commander to develop the situation and determine how to best maneuver his remaining two companies. Stryker infantry units should ensure that they dismount their Infantrymen prior to making direct-fire contact with enemy antitank systems. Units that achieve mutual, symbiotic support between ICVs and maneuvering rifle squads are most lethal. In order to accomplish this, the unit must identify PLCs (as discussed previously) to determine PLDs triggering the dismounting of Infantry forces at either an objective rally point (ORP) or assault position.

In this case, the scout platoon and Bravo Company failed to perform their duties related to reconnaissance, the FSE, and the AG respectively. However, the rapid destruction of these units necessitated a reconstitution of the FSE-AG movement-to-contact formation. The next company in the order of movement should have assumed duties as the reconnaissance-FSE-AG formation and dismounted its infantry to key terrain at higher elevation to first find the enemy in question. Then they could have subsequently fixed and destroyed the relatively small enemy force in Bravo Pass. This action in turn would have provided the battalion commander with additional time to further develop the situation and determine his next best course of action. In this case, the remaining Infantry companies were content to remain in the lower canalizing terrain which prevented them from gaining awareness about the evolving enemy situation. They spent the remainder of this battle reacting to enemy contact instead of moving to key terrain in an effort to wrestle initiative away from a relatively small enemy force.

Raid on Puma-1: Planning Backwards from the Objective

The full force dry rehearsal was ugly. Rotational unit leaders gathered on the objective consisting of a relatively small multi-story compound with three small buildings. They conducted a hasty informal after action review (AAR) on their actions on the objective. They had enough daylight to conduct one more rehearsal in preparation for the following day's attack under live-fire conditions. As they walked the operation "backwards" from the objective to the assault and support-by-fire (SBF) positions and then subsequently back to the ORP, they achieved shared understanding of how to best synchronize the attack on Puma-1.

The next morning 10 minutes of 155mm-delivered smoke obscuration descended upon the northwestern edge of the Puma-1 objective. Light winds carried the smoke back across the eastern edge of the objective toward the friendly direction of assault. Two minutes into the artillery-delivered obscuration, the battalion mortars rained down 120mm high explosive (HE) rounds on pre-planned targets for four minutes, suppressing key terrain surrounding the objective to include ground that would eventually serve as the Stryker infantry company's SBF position. There were now four minutes of artillery delivered obscuration remaining. The 120mm mortar fires lifted, and the company's 60mm mortars provided an additional two minutes of HE suppressive effects. Two minutes of artillery-delivered smoke remained.

Meanwhile, the support element was creeping behind the barrage of mortar rounds. The minimum safe distances (MSDs) were calculated perfectly. The 155mm smoke targets were impacting on the far side of the objective more than a kilometer away. The support element had moved to within 800 meters of the pre-planned 120mm mortar targets, and now the barrage of 60mm mortars allowed them to creep a little closer. Just a few more seconds and they would be slapping the tripods down for their M240Bs.

Six minutes of suppression had been achieved by the various mortar systems, and now it was the Strykers' turn. A section of ICVs unmasked themselves to provide an additional two minutes of alternating, sustained rates of fire from their two M2 .50 cal. machine guns. The breach and assault elements raced as fast as they could behind masking terrain knowing that the ICVs were suppressing the objective long enough for them to get to their assault position. If they moved too slowly, then their movement would be consuming time of suppression from the M240Bs that should be locking their guns into their traversing and elevation (T&E) mechanisms right about now. Rounds were now complete on the artillery smoke mission, and the smoke would be dissipating soon.

The ICVs now lifted their fires and backed up behind covering terrain. From the southeast of the compound, the six M240B machine guns woke up the canyon, firing simultaneously at a cyclic rate for 10 seconds and then seamlessly transitioning to alternating fires at sustained rates of fire for the next three minutes and 50 seconds. The commander had estimated he needed 12 minutes to get his breach and assault elements from their ORP to the assault position. They got there about 90 seconds faster than anticipated.

Sappers then moved forward with their Bangalore torpedoes. A green star cluster arched into the sky from the assault position. The support element platoon leader shifted his fires left of target reference point (TRP)-2 and called the company commander to confirm the shift. Now the sappers tossed two smoke grenades between the wire obstacle and the compound apertures facing in their direction. The smoke grenades didn't really obscure the breach force, but they did buy enough time for another sapper to move forward and ignite a smoke pot. Another minute to allow the smoke to billow and they were in business. The sappers inserted the Bangalore perpendicular to the wire and rushed back to their position in defilade where the assault element anxiously waited. Subordinate leaders confirmed they were outside of the Bangalore's surface danger zone (SDZ), which now ran the seam between the support and assault elements. Boom! The Bangalore detonation signaled the shifting of fires by the support element left of TRP-3, and initiation of one minute of suppression by the assault element's local SBF. They just had to suppress two apertures facing their direction of assault: a doorway on the ground level and a second story window. The weapons squad leader relayed that he was shifting right of his TRP, and the assault element moved forward through the smoke filled breach lane. The lead four-man stack attached a flex-linear charge to the main

Photo courtesy of authors

The Puma-1 objective is situated in an isolated valley to the north of Alpha Pass.

entryway door. Boom! The door was down and the support element lifted fires going into a "watch-and-shoot" mode oriented on terrain to the west of the compound. They had done a good job of walking their wall of steel into that "sweet spot" of 15-20 degrees in front of the sappers and assault element maneuvering toward the objective. Furthermore, the company executive officer (XO) had effectively planned the support element's ammunition requirements with the platoon sergeant. They had performed the "machine-gun math" to determine what they required for their M240Bs based on the required time of suppression in support of the breach and assault elements. The lead fire team now flowed into the compound. Four-man stacks methodically worked their way from room to room, always mindful of the direction of assault and their corresponding "hot walls." The stairway to the second floor was a little tricky, but the full dress dry rehearsals on the previous day paid off with more efficient footwork by the fire teams. The company reached its limit of advance, but there was no rest for the weary. They had a follow-on mission to support the battalion's continuing attack. Time to rinse and repeat!

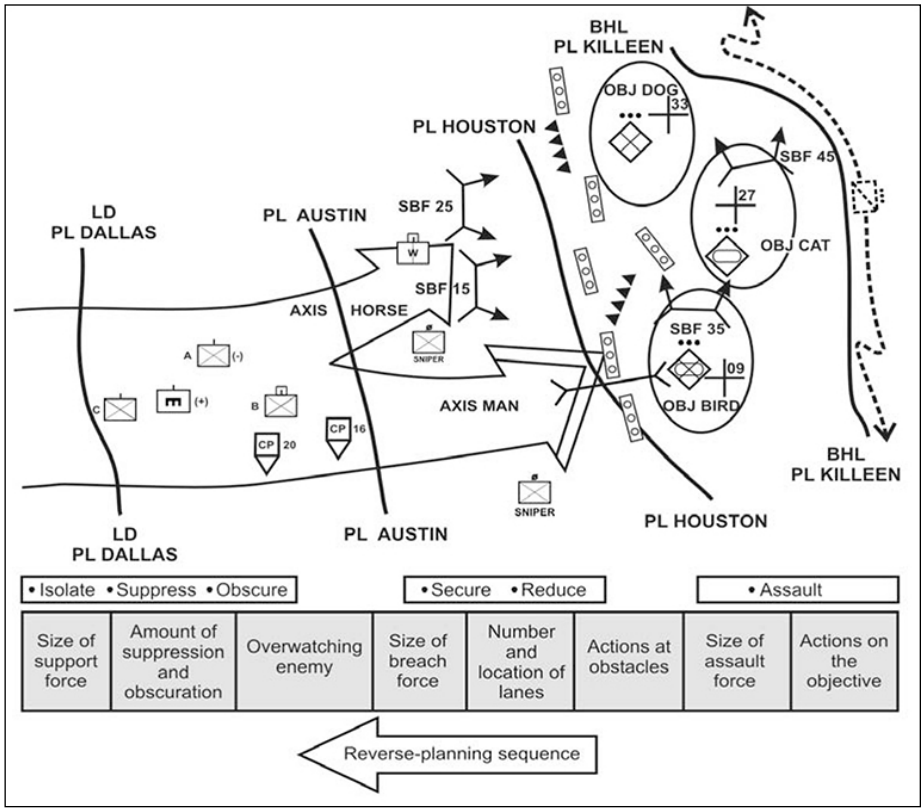

Figure 8 — Reverse Planning Sequence (FM 3-21.20)

Observations — *The concept of echelonment of fires is equally applicable to both indirect and direct fires in support of maneuvering assault and breach elements. There are numerous techniques outlined in our doctrine for planning and controlling both direct and indirect fires. Critical to the successful echelonment of fires is identification of the required time of suppression to support maneuver. In this case the unit took advantage of their full force dry rehearsal to identify the amount of time it would take the breach and assault elements to execute the breach and conduct the subsequent assault from their last covered and concealed position (their assault position) to establishment of the foothold. They then calculated the amount of time it would take those same two elements to move from their ORP where they dismounted their ICVs to the assault position. They also calculated the amount of time required for their support element to move dismounted from the ORP to their respective SBF positions. Finally, they worked their way backwards to calculate the amount of time it took for their Stryker ICVs to move from their PLD to the ORP where they would dismount their Infantrymen. All of these times provided the unit commander with required times of suppression by phase. The commander could then develop a concept to echelon 155mm artillery-delivered obscuration as well as the suppressive effects from 120mm mortars, 60mm mortars, mounted .50 caliber machine-gun fire, and dismounted M240B machine-gun fire to cover these identified times of suppression.*

Performing this "machine-gun math" (see Chapter 6 of Marine Corps Warfighting Publication 3-15.1) for each of these applicable delivery systems also allowed the task force sustainers to forecast Class V requirements in advance. The commander used applicable SDZs and MSDs to develop graphic control measures triggering the shifting and lifting of fires by delivery system (both direct and indirect fires). They utilized applicable SDZs to develop TRPs for their support elements and MSDs to develop phase lines tied to triggers for indirect fire support by caliber. TRPs were refined to tie into clearly identifiable terrain features to include corners of buildings that corresponded to 15 degrees of separation from the approaching assault elements. Clear direction was provided to the support platoon leader on how to control and distribute fires from his M240Bs. The commander wanted at least 10 seconds of simultaneous fires from all M240Bs at a cyclic rate of fire before they transitioned to alternating fires at sustained rates of fire. The commander also achieved a near perfect "right angle" of 90 degrees between the assault and SBF positions. This "battlefield geometry" allowed the support element to maximize the length of time that it could provide suppressive fires in support of the breach and assault elements as the Soldiers exposed themselves from the assault position. If the angle between the assault and SBF positions is too small, then it forces the support element to shift and/or lift fires prematurely in order to maintain a minimum of 15 degrees in front of the maneuvering assault force (or 40 degrees if firing from a bipod) to mitigate SDZ gun target line concerns.

Doctrine states that the only time a machine gun is fired from a bipod is during chance contact. Utilization of tripods and T&E mechanisms allows the machine-gun crew to effectively deliver a precise, tight cone of fire creating an accurate beaten zone to achieve the desired suppressive effects. Furthermore, the increased accuracy of a machine-gun mounted on a tripod and employing the T&E increases accuracy facilitating the ability

of the machine-gun crew to provide the maximum duration of suppression in front of maneuvering assault forces. Therefore, we strongly recommend utilization of machine guns mounted on tripods employing T&E mechanisms to achieve the best suppressive effects while mitigating risk to maneuvering assault and breach elements.

Finally, units must plan to conduct SOSRA (suppress, obscure, secure, reduce, and assault) for all offensive operations. Even if the enemy obliges by not emplacing any obstacles, then they have simply eliminated the requirement for the unit to conduct the "R" or reduction of any man-made obstacles. There is still a requirement to achieve suppression, obscuration, and security in support of the assault for any offensive operation. Units at NTC often do not plan for the reduction of enemy obstacles during the conduct of offensive operations, and as a result they incur an additional unforecasted time of suppression requirement while they pass attached engineer assets forward from the rear of their formation.

Continue The Mission...

The mission of the Infantry is to close with the enemy by means of fire and maneuver in order to destroy/capture him or to repel his assault with fire, close combat, and counterattack. Better than ever, the NTC battlefield replicates today's contemporary operating environment as well as the decisive action battlefields of tomorrow. The aforementioned C-17 capable flight landing strip west of Crash Hill, numerous urban terrain centers to include the metropolis-like city of Razish, and an evolving opposing force (OPFOR) that presents both paramilitary and near-peer competitive conventional threats offer increased opportunities for all types of infantry forces to hone their skills on complex terrain. As our Army continues to train to win in a decisive action environment, its "crown jewel" offers the full spectrum of threats from conventional to hybrid, paramilitary forces fighting across varied types of terrain to include operations in the open desert, rocky ridgelines at high elevations, as well as complex urban population centers. Whether it's destroying an enemy armored force, seizing key terrain dominating a critical mobility corridor, conducting a joint forcible entry operation, or clearing several city blocks, the mission of the Infantry remains unchanged.

Different organizational modified tables of organization and equipment (MTOEs) with their various capabilities and limitations may alter the methods of infiltration and "battlefield calculus," effecting the echelonment of both direct and indirect fires. However, the principles of finding the enemy and making contact with the smallest possible element to support subsequent maneuver still ring true. Many leaders talk gloriously of "the art of our profession," but we would submit that it is difficult to visualize, describe, and direct forces effectively to demonstrate mastery of "the art" if one does not first know "the science of our profession." Indeed, the support element must demonstrate its mastery of "machine-gun math," its control and distribution of fires (both direct and indirect), and the integration of SDZs and MSDs into development of appropriate fire control measures in order to deliver suppressive fires for a required time of suppression based on analysis of the terrain and distance from the assault position to the objective. Failure to properly plan and execute this "science" often results in a failure to deliver the assault element to the objective. Identification of key terrain dominating canalizing mobility corridors is not enough. The real question once you identify that key terrain is: "What are we going to do about it?" If it is indeed key terrain, then do we want to get our Infantry to it first before the enemy gets there? Or can we accept risk by simply covering that key terrain with observation and fires? Infantry forces must also understand how to task organize covering and guard forces to facilitate the commander's development of the situation and subsequent maneuver during the movement to contact. Furthermore, they must understand that "Step Zero" is simply another way of articulating that the timeless number one priority of work continues to be establish/maintain local area security at all times. We hope you enjoyed our humble offering of tactical vignettes. We certainly could have presented several more examples of our Infantrymen in action here at the National Training Center, but we'll leave that to another future edition of "Infantry Attacks at NTC." Till the next ORP...

At the time this article was written, **COL Brian J. Harthorn** was serving as an Infantry observer coach/trainer (OC/T) at the National Training Center at Fort Irwin, CA.

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Paratroopers assigned to the 1st Battalion, 325th Airborne Infantry Regiment, 2nd Brigade Combat Team, 82nd Airborne Division, begin an assault on an enemy-held urban environment as part of a live-fire range at NTC on 10 August 2015.
Photo by SSG Jason Hull

Integration of the T-11 ATPS

MAJ ALLEN M. COONES

Over the past decade, the Department of Defense (DoD) has experienced the challenge of transitioning from the T-10D legacy personnel parachute to the T-11 Advanced Tactical Parachute System (ATPS). The transition from one personnel parachute to another has been anything but simple. The T-10 culture — a culture derived from decades of experience with the T-10 series of parachutes — has further complicated the transition. During this time of change in the Airborne community, the Airborne and Ranger Training Brigade (ARTB) and the 1st Battalion, 507th Parachute Infantry Regiment (PIR) as the static line parachuting proponent led the effort to synchronize the rest of the Airborne community in the T-11 transition. This article describes the challenges to integration and the changes in doctrine, training, and material implemented to meet these challenges and enable the successful transition to the T-11 ATPS.

Paratroopers assigned to the 1st Battalion, 501st Parachute Infantry Regiment, 4th Infantry Brigade Combat Team (Airborne), 25th Infantry Division, U.S. Army Alaska, descend over Malamute Drop Zone during airborne training at Joint Base Elmendorf-Richardson, AK, on 13 April 2017.

U.S. Air Force photo by Alejandro Pena

The T-10 Legacy and Why the Army Abandoned its Historic Parachute

Based on feedback from the Airborne community, the Maneuver Center of Excellence (MCoE) Requirements Division published the operational requirements document (ORD) for a new Soldier parachute system in July 2003. The ORD cited the increased jumper weight and high descent rate of the T10 main canopy and its associated reserve parachute (the Modified Improved Reserve Parachute Soft Loop Center Pull [MIRPS SLCP]) to be the major cause of airborne injuries and the driving force behind the new requirement. The high number of jump-related injuries from Operation Just Cause, four percent of jumpers, was the major catalyst cited in the first paragraph of the document as a case in point.[1] The ORD identified the items below as the requirements for the new ATPS:[2]

* Jumper weight range (less parachute): 118-332 pounds
* T-11 main rate of descent at 332 pounds: 18 feet per second (fps) (compared to 22.5 fps for the T-10D)
* T-11 Reserve rate of descent at 332 pounds: 27 fps (32.8 fps for the MIRPS SLCP)
* T-11R altitude loss after activation: 250 feet
* T-11R force transfer along longitudinal axis of the body (MIRPS SLCP was mounted lower, potentially causing back injuries)
* T-11 reliability equal or better than T-10
* T-11R reliability 95 percent under partial main/99 percent under total malfunction

Airborne Systems, Inc., the designer of the T-11, began experimentation on a new parachute in 1994. After testing more than 120 prototypes through 700 drops and jumps, Airborne Systems won the contract for the design of the T-11 ATPS. At the time, the assumption throughout the Airborne community was that the T-11 would be a "plug-and-play" replacement for the T-10D with no major modification to doctrine or training apparatuses. Instead, a fatality and the resulting Army-wide stand down that occurred soon after the Army fielded the T-11 to the 82nd Airborne Division in 2011 disrupted any plans for a rapid transition to the T-11 ATPS.

The Rocky Road to Transition

Although not entirely their fault, the Airborne community failed to plan appropriately for the road to transition from one parachute system to another. It was impossible to foresee the risks associated with the new parachute at the time of fielding. With that said, units failed to synchronize T-11 ATPS training integration into operations from Day 1 of the new fielding. In fact, the only commonality across the Army in airborne training was the initial training that new jumpers received at 1-507th's Basic Airborne Course (BAC). Even the Jumpmaster Schools at Fort Benning, Fort Bragg, the U.S. Army Special Operations Command, and the Air Force Special Operations Command were teaching different material and techniques. Despite this rough start, the community as a whole has, and continues to make, significant headway toward successful transition to date.

The 1-507th PIR fielded the T-11 ATPS in July 2009. During the transition, students trained on both the T-10 and the T-11 systems through ground and tower phases and conducted five jumps using a combination of both parachutes. This method of dual parachute training was very successful until the Airborne School suffered a fatality in October 2013. During this incident, an Airborne student became trapped on top of the center panel of another jumper's canopy shortly after exiting the aircraft. During his descent, the student, entangled with his deflated parachute, slid off the lower jumper's canopy at approximately 200 feet above ground level.

Instead of ceasing operations with the new parachute until the investigation was complete, the U.S. Army Infantry School commandant, with input from the 1-507th PIR chain of command, opted to continue modified training. The BAC made two simple but effective changes to training. First, the BAC stopped conducting mass exit jumps with the T-11 ATPS. While this modification resulted in a lower risk of center panel strike or parachute entanglement due to the resulting increased dispersion of jumpers, it did not prepare paratroopers to join the ranks of the conventional Airborne force and conduct the large-scale mass exit jumps common in these units.

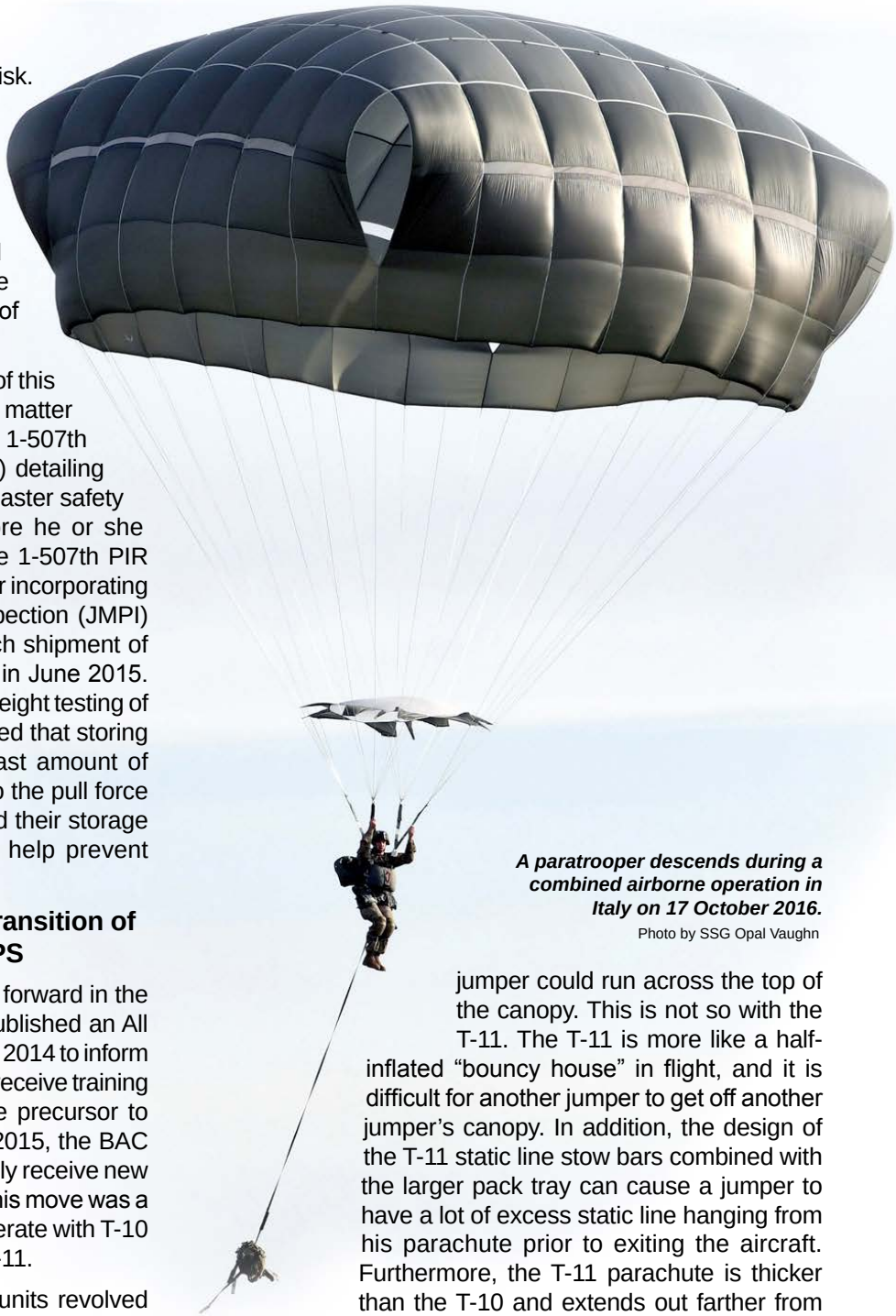
Second, the 1-507th PIR implemented the flexed-arm hang (FAH) into the program of instruction to verify that all jumpers were able to pull and hold a slip with the T-11. The T-11, due to its larger size, requires more effort to pull and hold slips when compared to the T-10, and jumpers needed to demonstrate this ability to prevent canopy collisions and entanglements. MCoE approved the FAH when it was included in the MCoE Regulation 350-3 revision in June 2015.

In addition to training modifications, the October 2013 incident spurred the Army to reflect upon the research and development side of the T-11 ATPS. The 1-507th PIR proposed several ideas to mitigate the hazard of a T-11 center panel strike; however, after testing at the Yuma, AZ, test facility, none of the proposed procedures proved to be effective at mitigating this hazard. In response to this shortfall, the 1-507th PIR worked with experts across the Airborne community to develop the current emergency procedures, which were released in August 2015. The new procedures emphasize the danger of being on top of another jumper's canopy and describe making every effort to get off.

In addition to the incidents involving jumpers, the path to transition revealed an increased danger to jumpmasters wearing the T-11 Reserve (T-11R). On 23 June 2014, the Navy Special Operations Static Line Jumpmaster Course experienced a fatality when a student's T-11R inadvertently activated while the student was in the "jumpmaster-relaxed" position, just inside the paratroop door of a C-130. The Navy and Air Force immediately stood down the MC-6 personnel parachute system, which shares the same harness and T-11R reserve parachute, for their personnel. This was not the only incident where an inadvertent activation of the T-11R resulted in the extraction of a jumpmaster from an aircraft. Reporting was inconsistent prior to this incident, but reports indicate that there have been more than a dozen inadvertent activations of the T-11R. This number is small compared to the number of jumps conducted with the T-11R across the force every year, but due to the catastrophic nature of the Navy incident, it was apparent that there was a significant danger to T-11R-equipped jumpmasters. Following this incident, Project Manager Soldier Clothing and Individual Equipment (PM SCIE) developed

a variety of interim solutions to mitigate this risk. Experts from the 1-507th PIR provided input to the working group that evaluated the interim solutions, leading to the adoption of T-11R inserts. The T-11R inserts were chosen over other interim fixes because they reduced the likelihood of activation due to exposure to wind without affecting the jumper's ability to activate the reserve and without requiring modification of any systems in the field.

The 1-507th PIR was the leading proponent of this interim solution. In addition to sending subject matter experts (SMEs) to Yuma to observe testing, the 1-507th published the Safety of Use Message (SOUM) detailing who should use the inserts and how the jumpmaster safety should inspect the jumpmaster's T-11R before he or she assumes the door of an aircraft. Moreover, the 1-507th PIR Jumpmaster School authored the procedures for incorporating the inserts into the jumpmaster personnel inspection (JMPI) sequence. This procedure was included in each shipment of T-11R inserts when they were fielded, starting in June 2015. Finally, the 1-507th PIR riggers conducted pull weight testing of stored T-11R reserve parachutes and determined that storing the T-11Rs vertically in cages caused the least amount of deformation to the packed chute and change to the pull force required to activate the parachute. They shared their storage solution with the larger rigger community to help prevent inadvertent activations across the force.



A paratrooper descends during a combined airborne operation in Italy on 17 October 2016.
Photo by SSG Opal Vaughn

Moving Forward with the Complete Transition of the Airborne Community to the T-11 ATPS

In an effort to move the Airborne community forward in the transition to the T-11 ATPS, the 1-507th PIR published an All Army Activity (ALARACT) message in December 2014 to inform the Army that new paratroopers would no longer receive training on the T-10D parachute system. This was the precursor to the BAC becoming T-11 pure, and in January 2015, the BAC began training only the T-11 ATPS. Units now only receive new Soldiers trained and certified to jump the T-11. This move was a catalyst for units that had been continuing to operate with T-10 parachutes to complete their transition to the T-11.

Until recently, the culture of most airborne units revolved around the T-10 series of parachutes. The T-10 was the system every paratrooper understood. It was common knowledge that the T-10 was forgiving of even the worst exit from an aircraft; most old paratroopers can tell you about how they simply "fell out" of an aircraft due to being burdened with heavy equipment. In spite of this advantage, the T-10 was also known to be less forgiving on landing, and the parachute landing fall (PLF) was emphasized above all else.

The T-11, however, has its own unique characteristics, which were discovered over the last several years, that counter most of the cultural knowledge developed with the T-10. We know now that the T-11 is less forgiving of a bad exit, and that excessive twists can cause a parachute malfunction. We are also aware that the T-11's slower rate of descent has reduced lower extremity injury rates among paratroopers. Every paratrooper knew that a T-10 was so rigid in flight that another jumper could run across the top of the canopy. This is not so with the T-11. The T-11 is more like a half-inflated "bouncy house" in flight, and it is difficult for another jumper to get off another jumper's canopy. In addition, the design of the T-11 static line stow bars combined with the larger pack tray can cause a jumper to have a lot of excess static line hanging from his parachute prior to exiting the aircraft. Furthermore, the T-11 parachute is thicker than the T-10 and extends out farther from the back of the jumper. Thus, the length of static line from the jumper's hand to the first retainer band on the back of the parachute is longer. Lastly, the T-11 also lacks the inner static line stow bars that were present on the T-10, and without inner static line stow bars, the distance between the static line stow bars is greater than the T-11. These differences create the potential for excess static line to be present on a jumper and have the potential to increase static-line injuries if the static lines are not well controlled. Again, these differences all run contrary to the culture created by 50 years of T-10 service. It is critical that leaders at all levels recognize these differences and enforce new training and procedures in order to prevent injuries in the future.

The Airborne community, led by ARTB and the 1-507th PIR, has finally begun to synchronize and standardize airborne training and operations. The ARTB/1-507th PIR held the first

of four Static Line Symposiums over video teleconference from Fort Benning in April 2015. Some significant initiatives tackled by the symposium included the rewrite of Training Circular (TC) 3-21.220, *Static Line Parachuting Techniques and Training*; the creation of a common pre-jump and mock door training for all units; emergency procedure implementation; parachute packing modifications; static-line control; and the controlled movement technique for moving inside the aircraft.

On the topic of research and development, in July 2015 the 1-507th PIR held the first of four apparatus upgrade meetings to discuss all of the upgrades needed to train paratroopers using T-11-specific apparatuses and equipment. The upgrades included jump platforms and T-11-style trolleys with risers for the 34-foot mock towers and T-11-size trapezes for the suspended harness pit and the improved swing landing trainer. There were also upgrades to the slip pull simulator (to verify a jumper's ability to pull a slip), upgraded mock doors for Ground Branch and Jump Branch, a C-130 hulk for student training, upgrades to the 250-foot jump towers, and the T-11 ring on the 250-foot towers to hang T-11 and T-11R canopies for a familiarization class. The 1-507th PIR also requested and received additional medium Modular Lightweight Load-carrying Equipment (MOLLE) rucksacks and modular airborne weapons cases (MAWC) for training and combat equipment jumps, fielding of the universal parachutist recovery bags, and 65 Beyond Economical Repair (BER) T-11 canopies for teaching students how to recover their equipment. The 1-507th PIR has made enormous headway with apparatus upgrades through generous funding from PEO Soldier/PM SCIE and MCoE. These upgrades will bring airborne training into the 21st century and in line with the current parachute of record.

Additional support for airborne operations implementing the T-11 is currently under way at the U.S. Army Quartermaster School. During the T-11 transition, there were significant challenges on the parachute rigger side of the equation. Due to the time and effort required to pack the new T-11, an individual rigger may only pack 15 parachutes per day; whereas, they would have been able to pack 25 T-10 parachutes in a single day. This change initially caused a community-wide rigger shortfall, and we are only now starting to see some relief thanks to the Quartermaster School commandant, who has increased rigger recruiting and throughput. The 1-507th PIR rigger SMEs offered a solution to help reduce some occupational injuries while increasing the reliability of the T-11 main parachute. The SMEs recommended a new packing procedure be tested that would offer an increased opportunity for the T-11 main parachute to deploy by doubling the available air channels, while also making the packing procedure less strenuous for the individual rigger and reducing the amount of time that the T-11 takes to deploy. Ultimately, a portion of the recommended changes was accepted after testing funded by PM SCIE.

Finally, in October 2015, two years after the aforementioned fatality caused the BAC to stop jumping mass exit, the mass exit technique was reintroduced in the BAC through a deliberate process of certifying the Black Hat instructors, training the students, and evaluating their performance in the air. Since October 2015, the BAC has conducted at least one mass exit jump per class, ensuring the Airborne community receives the best-trained paratroopers possible. The 1-507th PIR achieved the goal of nighttime mass exit jumps and mass exit jumps with combat equipment in the summer of 2016.

In summary, the T-11 transition has been anything but simple. The T-11 ATPS has changed many things about the way we conduct airborne operations, but the most important change has been the Airborne culture. As we move forward, the XVIIIth Airborne Corps commander was named the Airborne lead, and he has task organized the Airborne community to ensure improved communication flow and common standards throughout units. The 1-507th PIR will remain an active participant on the Airborne Board as airborne and jumpmaster training and doctrine SMEs for the U.S. Army Training and Doctrine Command and the Airborne community. The Airborne community has seen marked improvements in coordination between services and schools, changes in the way that the airborne force conducts pre-jump and mock-door training, and updates to emergency procedures and doctrine from the initial days of fielding the new parachute systems. ARTB and the 1-507th PIR will continue to lead the way and look for ways to improve the safety and synchronization of the T-11 as the Airborne community jumps the T-11 for many years to come.

Notes

[1] Operational requirements document for ATPS ACAT III, August 2005.
[2] Ibid.

MAJ Allen M. Coones is the former executive officer of the 1st Battalion, 507th Parachute Infantry Regiment (U.S. Army Airborne, Jumpmaster, and Pathfinder Schools). He is currently serving as an advisor for the U.S. Military Training Mission in Saudi Arabia.

Photo by Markeith Horace

Upgrades were made to training apparatuses including the 250-foot jump towers and a C-130 hulk trainer at Fort Benning.

Illustration by Marc Simonetti

Artist rendering of a U.S. Army commander shaping the deep fight with lethal fires from field artillery, attack aviation, and fixed-wing aircraft. This painting is box art for Wargame: Airland Battle from Eugen Systems and published by Focus Home Interactive.

How Enablers Shape the Deep Fight for the BCT

CPT COLIN MARCUM

This article first appeared in the March-April 2017 issue of Fires.

Forwards

During my time as the commander of 2nd Brigade Combat Team (BCT), 1st Armored Division at Fort Bliss, TX, I had the opportunity to truly appreciate how effects on the battlefield can shape the execution of courses of action and conduct of both friendly forces and that of the enemy. I knew that in most instances the greatest threat to mission success and force protection happens during the close and security fight, but as my time went on I began to see how effectively shaping the enemy in the deep fight days before changed operational and mission variables during the close fight to create an advantage for us. As a result, I made sure the staff of my warfighting functions dedicated a portion of their planning time, and the brigade's resources, to not only fighting the close/security fight but also to shaping the deep fight in order to set favorable conditions. I knew if this was accomplished it would arguably make future planning that much easier for, as you see, the deep fight of today has the potential of being the close fight of tomorrow.

The following article discusses how the BCT's enablers affect the deep fight to shape the enemy's decision-making cycle, create overmatch in friendly capabilities, and set conditions necessary for success in the decisive action of the close fight. Written by CPT Marcum, one of my previous fire support officers, with a collaborative effort from the other effects-producing enablers of my previous

staff, this article will define the deep, close, and security fights and what are considered enablers; how effects compound and cascade throughout the operational environment; how to use the targeting process to set the conditions necessary for future success; then finally, how to logically incorporate these concepts into the military decision-making process (MDMP).

If a brigade staff thinks about the operational environment in this way and proactively executes a comprehensive targeting process to set conditions in the deep fight, then not only will the brigade's staff find shaping conditions on the battlefield much more intuitive, but it will also lead to mission success and better force protection for the organization.

— COL Charles Masaracchia
2/1 ABCT Commander, July 2014 - June 2016

Shaping the deep fight for a BCT can be broken down into the balancing of ends, ways, and means with risk. The enablers represent the means and it is the BCT fire support coordinator's (FSCOORD's) duty to ensure all the available means are feasibly employed and synchronized together in their ways. To start the discussion in the planning phase we asked three fundamental questions:

1. How can we change the enemy's course of action to that which favors ours?
2. How and where can we attrite the enemy to provide overmatch?

You will never have all the assets you would like or the time to employ them, and these inevitable shortcomings become the operational risk. One risk we were not willing to accept is keeping an asset on the shelf. Therefore, the third question became:

3. Is every available enabler in the fight?

This article will discuss the concepts, methods, and staff processes that will lead the reader and a brigade staff to the answers to these questions.

— LTC Brandon Anderson
Fire Support Coordinator/Battalion Commander,
4th Battalion, 27th Field Artillery Regiment, 2/1 ABCT, July 2014 - June 2016

As with any shaping operation, shaping the deep fight seeks to "establish conditions for the decisive operation through effects on the enemy, other actors, and the terrain."[1] In the case of a BCT, that decisive operation will occur in the close fight. Therefore, when we discuss how enablers shape the deep fight we are referring to how we set the conditions necessary for the BCT to be successful in the current and subsequent close fights. This is done through planning, synchronizing, and employing enablers in such a manner that has a calculated effect upon the threat which can be qualitatively and quantitatively measured at a particular time and space prior to the decisive operation. Before delving further into how this is accomplished, common terminology must be established in order to prevent a conflict in semantics.

What is the Deep Fight?

The "deep fight" can mean different things to different people, but for most it deals with the difference in operational reach for various organizations. For this article, the term "deep fight" will be a time and space relationship for a BCT, based on Army Doctrine Reference Publication (ADRP) 3-0's definition of a "deep area." See Figure 1 for the doctrinal definitions for deep, close, and security areas, but the deep fight is that area which "extends from the forward boundary of subordinate units to the forward boundary of the controlling echelon in contiguous operations."[2] When conducting combined arms maneuver, the deep area for the BCT would consist of the terrain beyond that of the cavalry squadron's battlespace but still within the boundary assigned to its brigade.

During friendly offensive operations, the deep area would include territory beyond the enemy's main and subsequent defensive positions and the furthest point the reconnaissance squadron may establish a screen for the brigade. For defensive and retrograde operations, it is simply beyond the boundary of the area of operations (AO) for the forward-most units within a BCT's area defense. In the deep area one may find enemy mission command elements and their sustainers, long-range cannon and rocket artillery, air defense assets, operational reserves, forward arming and refueling points (FARP) for rotary wing, and possibly airfields and hangars for fixed-wing aircraft. Those assets in the deep area enable the enemy more freedom of maneuver throughout the AO and provide their commander the ability to weight their main effort accordingly. Delivering effects against these assets will invariably affect the enemy's course of action (COA) as they eventually enter into the close fight with friendly forces.

	Deep	Close	Security
Contiguous	An area forward of the close area that a commander uses to shape enemy forces before they are encountered or engaged in the close area. Typically, the deep area extends from the forward boundary of subordinate units to the forward boundary of the controlling echelon in contiguous areas of operations. In this sense, the deep area relates not only in terms of geography but also in terms of purpose and time.	An area assigned to a maneuver force that extends from its subordinates' rear boundaries to its own forward boundary. Commanders plan to conduct decisive operations through maneuver and fires in the close area and position most of the maneuver force within it. Within the close area, depending on echelon, one unit may conduct the decisive operation while others conduct shaping operations.	Focus on the protected force, installation, route, or area. Protected forces range from echelon headquarters through artillery and echelon reserves to the sustaining forces. Protected installations can be part of the sustaining base or part of the area's infrastructure. Protected routes and areas involve securing a range from specific points (bridges and defiles) and terrain features (ridgelines and hills) to large population centers and their adjacent areas.
Non-Contiguous	The area between noncontiguous areas of operations or beyond contiguous areas of operations. The higher headquarters controls deep areas within its area of operations. In some instances, a deep area may focus along a single line of operations. In other instances, a deep area may focus along multiple lines of operations in various directions and distances. The mission variables of METT-TC will impact how leaders define a deep area.	The area within the subordinate commanders' areas of operations. The higher commander may redefine the boundaries of specific areas of operations as necessary to shape operations, reallocating resources to ensure subordinate headquarters can adequately cover their assigned areas of operations.	

Figure 1 — ADRP 3-0's Description of Deep, Close, and Security Areas for Contiguous and Non-contiguous Areas of Operation

The deep fight, as is the deep area, is both spatial and temporal. The deep fight of today may become the close fight of tomorrow, and our tankers and Infantrymen may very well be witnessing the effects of last week's deep fight as they maneuver through the battlespace. If the decisive operation occurs during the close fight, then it should be the goal of the BCT to leverage assets during deep operations that will make accomplishment of the mission in the close fight much easier. The use of these assets enables the commander to shape the course of the battle to their advantage, and it is the reason why we refer to those assets as "enablers."

What Are Enablers?

There is no definitive answer to this question. The term "enabler" can be found permeating through our professional discourse (such as this article) or talked about in planning tents and the floors of current operations. The problem with the term is that even though it is so pervasive, there is no established definition as to what it means. Enablers have become one of those contextual terms where we all generally understand what it means though can't necessarily put it into words easily. It is a, "I know it when I see it" type of situation. We will attempt to appropriately define the term before we proceed any further.

The non-military definition for "enabler" most closely associated with our usage is, "a person or thing that makes something possible." References made to enablers in military articles and distributed publications emphasize that they are augmented capabilities that directly support mission accomplishment, but they may not be necessarily required if other enablers and their effects can be furnished. In this case, our definition for enabler will be "an organization or capability that supports a particular COA and/or accomplishment of a particular objective." An enabler in this case is not universal but instead situation dependent. For example, a field artillery battery can support an infantry battalion in the defense with fires, and in this case artillery would be considered an enabler as it enables the infantry to accomplish its mission. Conversely, the field artillery battery could receive a platoon of infantry to help augment its battery defense, and that maneuver platoon would be considered an enabler by alleviating some of the security responsibilities for that battery.

For the BCT, its COAs and objectives revolve around the decisive operation and supporting the main effort. In this case, the main effort is generally a maneuver unit (cavalry squadron, infantry or armor battalion). Additionally, since enablers are augmentations to the capabilities of the BCT, this would preclude the incorporation of those elements from the mission command and sustainment warfighting functions (WfF) as they are critical to the functioning of a brigade. So for this organization, the enablers can be found throughout the other WfFs (the entirety of fires and protection as well as certain elements within movement and maneuver and intelligence WfFs).

When talking about shaping the deep fight for the brigade, however, we limit ourselves to just those that can produce effects within the deep area. Therefore, since protection is focused on supporting the close and security fight, they are precluded; however, their subject matter expertise can still be leveraged. As a result, for the remainder of this article when referencing enablers, we will be discussing those

particular enablers that shape the deep fight for the BCT, and that includes: field artillery, air defense artillery, information operations (IO), electronic warfare, aviation, information collection (IC), and the tactical air control party (TACP). For more information regarding what these enablers are and what they provide to the brigade, reference the following "Know Your Enabler" section for more insight: https://www.dvidshub.net/publication/issues/32013.

When we shape the deep fight, we are setting the conditions necessary for the brigade to be successful in the close fight. As enablers, we achieve this through an effects-based approach to affecting the enemy's COA.

Shaping the Deep Fight

When we shape the deep fight, we are setting the conditions necessary for the brigade to be successful in the close fight. As enablers, we achieve this through an effects-based approach to affecting the enemy's COA (Figure 2). This is accomplished through working backwards from the commander's desired endstate. Once we know where we need to be, we then assess the mission and operational variables of that AO to determine the conditions that need to be set through the application of desired effects in order to meet that endstate.[3] Finally, we associate available assets, or enablers, that can achieve those desired effects and plan their employment accordingly.

An important component in this process is an accurate assessment of what needs to be achieved in order to reach that desired endstate. There can be multiple options available to set a requisite condition, but it requires having a proper definition of success. A requisite condition should be a statement on the state of some variable within the AO and not directly linked with an effect. If you immediately associate a condition with an effect, then that limits an organization's ability to utilize all enablers to support the operation.

An example of an improper required condition would be the destruction of the enemy's operational reserves if instead the actual intent was simply to secure and hold a key piece of terrain. The wording of the condition would limit planners to employing lethal enablers to achieve destruction. Destroying the enemy's reserve would indeed support maintaining control of that key terrain, but with a properly worded requisite condition — such as "secure and hold key terrain on Objective X-Ray — more options may be presented. For example, the BCT can employ a military deception (MILDEC) plan in order to delay movement towards the area; electronic warfare can be employed to disrupt their ability to mission command; IO can employ a non-lethal leaflet drop to encourage the units and members of that reserve to surrender or desert; or airpower can be employed to destroy critical ramps and bridges on avenues of approach to prevent their movement into the battlespace.

For every potential target on the battlefield, there are numerous options for which to engage them with lethal and non-lethal effects in order to shape their behavior — both physically and psychology. As expounded by Edward A. Smith from the Department of Defense's (DoD's) Command and Control Research Program:

> *"The physical effects alter behavior by dealing with the physical means of an observer to wage a war or to carry out a course of action. The psychological effects alter behavior by affecting the cognitive process of the observers so as to shape will. The physical effects are focused on destruction and the incapacitation of forces and capabilities, including by rendering an observer incapable of mounting a coherent action (chaos). The psychological effects span the domain of reason, the rational decision-making process, and the domain of belief, the emotional impacts on decision-making. They lap over into the physical domain where they induce chaos, but focus on foreclosure, shock, and psychological attrition."*[4]

When discussing the ability of enablers to deliver different types of effects, we envision the impact upon the enemy's COA through the use of compounding and cascading effects where physical effects also produce psychological effects — and vice versa — throughout the enemy's formations and chains of

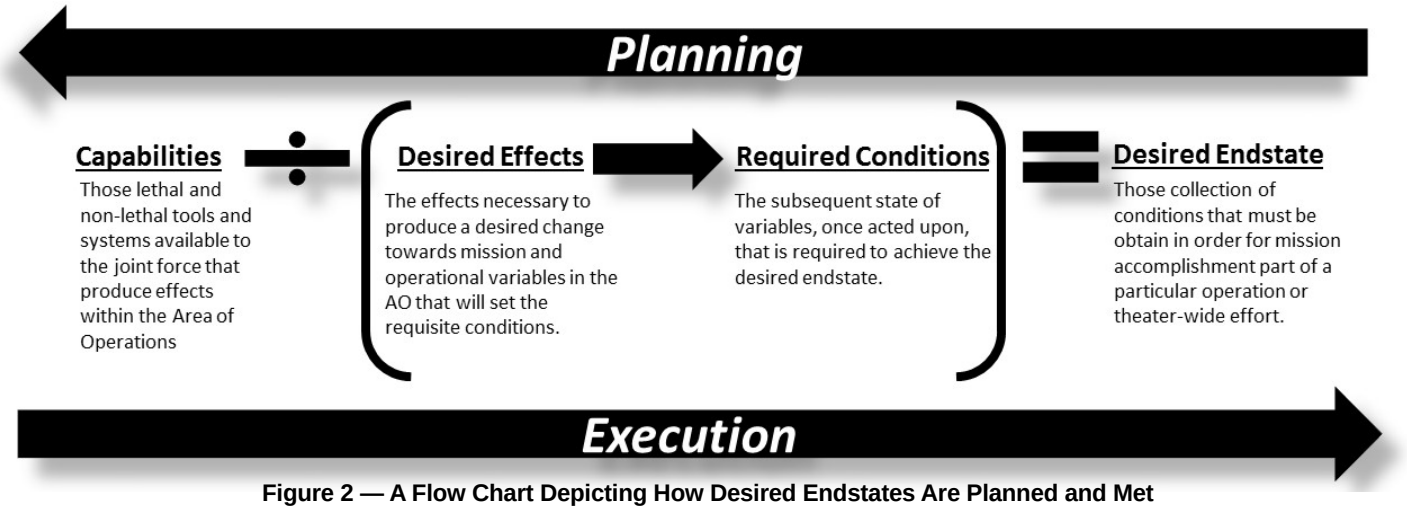


Figure 2 — A Flow Chart Depicting How Desired Endstates Are Planned and Met

While a COA will naturally begin with the execution of capabilities, the staff utilizes backwards planning in order to determine how to mold COAs to shape conditions required of the endstate. (Graphic courtesy of author)

Photo by SGT Demetrius Munnerlyn

The execution of leaflet drops by psychological operations companies create non-lethal behavioral responses amongst local audiences. When associated with other lethal and non-lethal effects, the additional leaflet drop can create a compounding effect that compels an adversary or neutral party to respond in such a way as to produce an advantage for friendly forces.

command. When employing Army attack aviation to project power into the deep area with the desired effect of destroying an enemy command post, you obviously have achieved a destructive effect on its personnel and equipment, but it also cascades throughout that organization. At the lower echelon, you have the physical effect of loss of communication with higher as well as the potential psychological effects of uncertainty and fear. When conducting IO with the desired effect of disrupting an enemy organization through a leaflet drop suggesting desertion or surrender, you may naturally produce an immediate psychological effect, but potentially you may also create a physical effect through the reduction of their combat power.

The art of the employment of enablers comes when one synchronizes multiple effects to produce a compounding effect which yields more than the sum of the results of those individual efforts. In the case of the leaflet drop, friendly forces may have only been able to convince a handful of enemy personnel to desert, but with the destruction of their higher's command post by aviation and the resulting behavioral change of uncertainty and fear, the effects of that leaflet drop may be enhanced, resulting in more deserters. Additionally, much like a fire that feeds itself, each desertion produces an effect in and of itself and increases the psychological effects on everyone around it. A cascade of desertions may result in the entire unit surrendering to friendly forces if not already evaporating into the countryside thanks to the employment of multiple enablers to producing compounding and cascading effects.

In the case of shaping the deep fight for the BCT, the effects-based use of enablers is required to achieve a cascading and compounding desired effect upon the enemy and their COA before they become engaged in the close fight. Ideally, the close fight should be a relatively easy affair for our maneuver brethren due to our dedicated effort to impact the enemy in the brigade's deep area. Determining the enemy's courses of action, recognizing their centers of gravity (COG), identifying their high value targets (HVT), and nominating high payoff targets (HPT) will allow the staff to begin planning to synchronize the effects of enablers upon the enemy, and this synchronization occurs during the targeting process.

The Targeting Process in the Deep Fight

The targeting process seeks to focus the efforts of an organization in such a manner that specific effects are created against particular targets in a calculated manner so as to set the conditions necessary for the commander's desired endstate. In any particular AO, there are generally more targets present than assets available to deliver effects, and in the case of creating compounding effects when more than one asset may be utilized to shape the behavior of a particular target or set of targets, there is further scarcity in means available. It is a conflict between two principles of war: mass in concentrating multiple assets to create powerful compounding and cascading effects, and economy of force in ensuring that assets are not ineffectually wasted on targets when they could have been more efficiently used supporting another important effort. The targeting process will seek to balance these two.

To support this balance, the staff is provided targeting guidance from the commander. This guidance "describes the desired effects to be generated by fires, physical attack, cyber electromagnetic activities, and other information-related capabilities against threat operations."[5] It should delineate how enabler efforts support the friendly COA for the immediate close and security fight as well as provide overall direction for how targeting should employ enablers to affect the enemy's COA in the deep fight. This is an important distinction to make as shaping the deep fight will happen concurrently with the close and security fight, and a determination needs to be made

on where a particular asset will be employed. If all you have today is a flight of two AH-64 Apaches, you can't have them conduct a deep attack against an HVT/HPT and simultaneously have them provide close combat aviation support for troops in contact. The targeteers will have to assess where to weigh available assets to achieve the best effects, but thanks to the targeting process and an effects-based approach, they can utilize all of the BCT's enablers and weaponeer a solution to this problem.

The targeting officers involved in planning the shaping of the deep fight have to not only know how assets produce effects throughout a system but also the nature of the targets themselves to determine whether the effects can even be achieved. For many, destruction of an enemy mission command node and killing enemy leadership would appear to cause significant disruption in their operations. For state actors with weak mission command, like North Korea and Iraq, this would be the case since they have inflexible chains of command where not much trust is placed in the capabilities of subordinate leadership to step up at critical times. Conversely, for state actors with strong mission command, like Russia and United States, the loss of a leader may be tragic, but it is within the culture to always have someone ready to step up to fill the void. For non-state actors and transnational threats whose mission command is decentralized, like ISIS and Hezbollah, their ability for long-range planning may be impacted, but at the tactical and operational level they function generally independent of one another.

Targeting is About Behavioral Responses

Knowing the nature of the target — how it will react to a specific effect both physically and psychologically — is the most critical and complex element of targeting as it requires in-depth knowledge of that target.

"Our objective in executing effects-based operations is to somehow create a unity of effect that focuses all action and thereby masses their effects toward a particular behavioral objective... The problem once again centers on what observers see and how they interpret what they see."[6]

On 7 December 1941 the Imperial Japanese Navy utilized airpower to employ destructive effects against the U.S. Pacific Fleet at Pearl Harbor and crippled a significant portion of the fleet's combat power. Their desired endstate was not to defeat the United States militarily, but to leverage enough influence in theater to force the United States to terms favorable to Japan, or at the very least, weaken them to the extent that they would not be able to array enough combat power to halt their expansion throughout the Pacific. One requisite condition to meet their desired endstate, therefore, was the destruction of the Pacific Fleet.

Short of destroying the fleet's aircraft carriers and harbor facilities, they did meet the condition that they set out to accomplish but failed to understand the behavioral nature of the United States. The current state of conditions between the United States and Japan created an unintended negative behavioral response — a psychological effect — which went against their desired endstate. While their military element of national power was setting conditions for open conflict, the Japanese diplomatic and informational elements of power were still working towards peace. Though the Japanese government sent a telegram stating their cessation of diplomatic efforts, basically stating the two nations were now in armed conflict, the timing of its delivery after the attack changed the American behavioral response. Instead of demoralization and defeatism, that attack created a sense of betrayal which required vengeance and rallied the nation to war — the opposite reaction the Japanese intended.

This example emphasizes the true intent of most military operations, and that is to shape the will of the enemy to our own. We shape their will through the effort of creating calculated behavioral responses. We create those responses through the application of lethal and non-lethal effects on the battlefield in concert with the effects created from other elements of national power. So, while some may say that we in the military focus on destruction of the enemy, they are both right and wrong. The targeteer focuses shaping the behavior of the target, sometimes through destruction. But when all enablers are available, the targeteer will utilize whatever is necessary to create the desired effect and the resultant behavioral response.

Focusing on effects to create psychological responses is all well and good; however, the following questions arise: "Knowing that shaping behavior is necessary in order to defeat an enemy, how is that actually accomplished and how does the BCT go about shaping the deep fight in this manner?" The answers come from getting into the enemy's decision-making process and disrupting it, thereby preventing them from executing their COAs coherently which creates psychological effects counter to effective mission command.

The Enemy's Decision-Making Cycle

Arguably, the brigade would prefer to decisively engage an enemy organization that is not only attrited but also disorganized. A disorganized force that is unable to carry out its COA, or was unable to finalize a COA by time of engagement, will not be able to put forth a unified effort at that critical place and time. Since the brigade seeks to emerge the victor from the decisive engagement in the close fight (which stated previously is the main effort), then naturally the BCT will seek to utilize its enablers to begin shaping conditions in the deep fight towards that desired endstate. The first method is to simply compel the enemy to change their COA that will allow the BCT to strike where the enemy is weak and avoid where they are strong — a basic warfighting tenet. The other method, however, is the one that keeps their leaders off-balance, frustrates and demoralizes their operation planners, and overall creates an air of uncertainty throughout their ranks. This second method involves getting into their decision-making cycles and defeating their ability to produce feasible and coherent plans for their subordinates to follow.

Within the targeting/intelligence community, we refer to the decision-making cycle as the OODA (observe, orient, decide, and act) loop. The OODA loop is inherent to all individuals, groups, and multi-tiered organizations, and simply refers to the process in which they react to stimuli in the environment. Some form of stimuli is first observed, and then the individual or unit

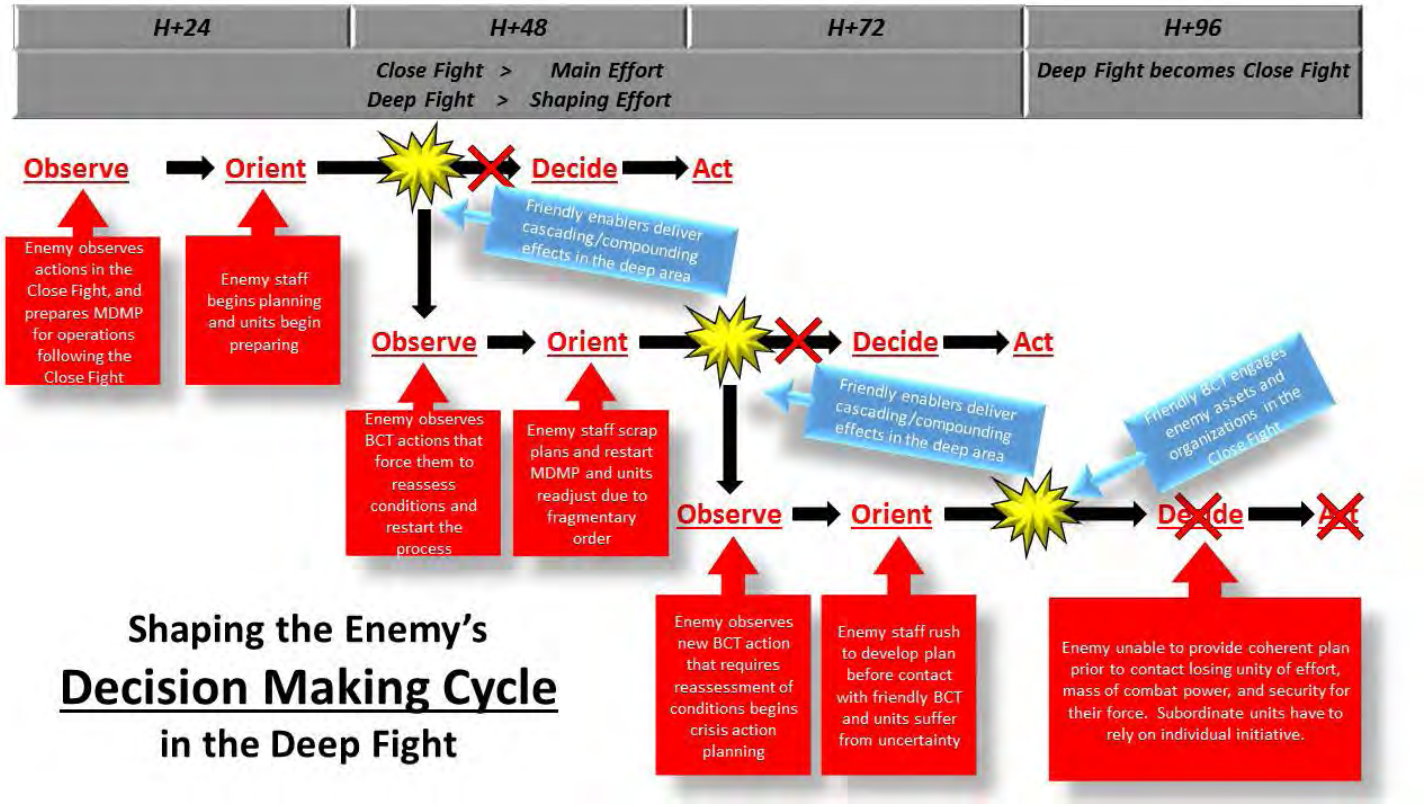


Figure 3 — Depiction of the Enemy's Decision-Making Cycle in the Friendly Force's Deep Area

Through the use of effects at the right time and place, the enemy's observe, orient, decide, and act process is continuously interrupted, preventing them from developing a unified plan. This culminates when the enemy is decisively engaged in the new close fight unprepared. (Graphic courtesy of author)

orients its efforts towards determining a response. A COA is then decided upon that will achieve a desired effect, and finally they action that COA. Once that action is completed, then new stimuli will be observed and the process is continued again indefinitely. This is always occurring, with no respite, and will not stop until the observer is no longer capable of observing stimuli (i.e., destroyed).

A comprehensive, feasible, and actionable COA for an organization requires a relatively unmolested OODA loop to have occurred. The enemy would have observed the AO under its current conditions, oriented planners and resources to develop a plan, decided upon a COA to follow, and then actioned that COA. During the OODA process if new stimuli is introduced, it may force the adversary to re-start their OODA process if they thought this new information was critical enough to do so. Imagine you were about to utilize your assets to introduce new stimuli while the opponent was in the process of either orienting their capabilities or deciding upon an action. Now, if this new information was significant enough that, once observed, they would have to cancel their current process and re-orient, this would cause frustration for the organization and potentially confuse subordinates that may have been provided warning orders and have started preparing for a COA that will no longer be executed. If you were able to continue to leverage effects on the enemy that forced them to constantly re-orient and re-decide on a COA, they would not be able to regain the initiative, would be forever reacting to your efforts, and would not be able to put together a coherent and effective plan.

In the case of the deep fight and shaping the enemy COA through disrupting their OODA process, the BCT is effectively shaping the conditions of the future close fight while the current close fight is still being waged. In Figure 3, we see this process from the perspective of the enemy as they prepare for future operations within the BCT AO. They initially observe the conduct between their forces and that of the BCT during the close fight, and begin planning for their future COA 72-96 hours out. They will orient their planners to conduct mission analysis, develop COAs, and potentially wargame them before coming to a decision on how to execute the future fight against our forces. However, thanks to the timely employment of cascading and/or compounding effects throughout the deep area, the enemy commander and planners have to drastically change their assessment of the current conditions. Because this newest assessment is so significantly different from their initial calculations, all previous planning is no longer valid, and they have to re-orient their planners to develop new COAs.

Through its employment of effects in the deep fight by its enablers, the BCT is able to keep the enemy's decision-making cycle in a state of constant reassessment up until their forces are decisively engaged in the close fight. When contact is finally made between this enemy and the brigade, the failure to develop a coherent plan will mean they will not be able to unify their efforts, mass their combat power, and maintain a comprehensive security plan. The enemy's subordinate units will be forced to react to contact and will have to rely on individual initiative with limited support from

their higher echelon. Even if the effects upon the enemy didn't create an overmatch in capabilities, the BCT would still have a tremendous advantage by having a unified effort for the close fight against a force that has none.

Creating Overmatch in the Close Fight

Creating overmatch, however, can be a much simpler affair than trying to shape the behavior of the enemy. Assessing whether the enemy has been behaviorally shaped requires skilled analysts and measures of effectiveness (MoEs) tied with well-defined identifiers to determine that success. However, even a novice can tell whether destructive effects were achieved on a tank, howitzer, or combatant. Measures of performance (MoPs) and effectiveness are easier when it comes to creating overmatch, at least in regards to lethal fires. What is overmatch, you ask?

The Army's Operating Concept for 2014 defines overmatch as, "The application of capabilities or unique tactics either directly or indirectly, with the intent to prevent or mitigate opposing forces from using their current or projected equipment or tactics."[7] In layman's terms, in comparing capabilities with the enemy — like armor or artillery — then you ask yourself three questions:

- Do we have more of them then they do?
- Are ours more advanced than theirs are?
- And do we use ours more effectively than they do?

If the predominant answer is "yes," then you have overmatch.

An American-crewed M1A2 Abrams Main Battle Tank could be said to be on equal footing to that of a Russian-crewed T-90A Main Battle Tank. There is no numerical superiority to either side. Both tanks have similar qualities, and both crews are competent in the operation of their vehicles. If you put a North Korean crew in that T-90A, however, then you have an American overmatch because of the superior training that American tank crews receive. Switch the one T-90A with a battalion's worth of T-34-85, and you have superiority in numbers but inferiority in technology. The enemy's guns aren't powerful enough and their mobility and traversing speeds are not as fast as the Abrams. They also lack gyro-stabilization to shoot on the move like the Abrams. In this case, the Abrams tank has overmatch due purely to technology.

So what does this mean for the BCT? Overmatch can be used as a tool or criteria to assess whether a particular operation will be successful. If the brigade had an appropriate level of overmatch in all areas, then the commander could confidently conclude that even if their most comprehensive COA fails to go as planned then success can still be achieved with what is physically present on the battlefield. One option is to create this overmatch through evaluating the enemy's organization and mission, determining locations where they are weaker, and then engaging them there with the mass of the BCT's combat power. Alternatively, the BCT can create overmatch through the use of lethal and non-lethal effects from enablers in the deep fight.

An armored BCT commander may only be concerned about overmatch in armor. The commander has on hand only 16 fully operational M1A2 Abrams, but intelligence suggests there are upwards of 20 T90s operating in the deep area. It will have to be assumed that when the enemy in the deep area becomes engaged in the close fight that they will attempt to coordinate all their armor to engage friendly forces. The friendly commander will execute offensive operations into the deep area but wants to achieve a 2:1 overmatch in armor if possible. That means 12 enemy tanks will need to be removed from the equation in some fashion. This is where the enablers step in.

The commander's desire for overmatch can be met through the use of all enablers. Lethal fires can remove enemy capabilities from the battlefield, and non-lethal fires can prevent enemy capabilities from entering the AO at the wrong time and place.

In planning: Analysis and prediction of armor locations using named areas of interest (NAIs) are associated with intelligence, surveillance, and reconnaissance (ISR) platforms to attempt to identify enemy T90s in the deep area. Certain NAIs are then associated with lethal and non-lethal weapon systems and are promoted to targeted areas of interest (TAIs). The FSCOORD, brigade fire support officer, and targeting officers work with other staff cells in order to develop an effects-based COA to shape enemy armor in these TAIs in order to create that desired overmatch for the commander.

In execution: Lethal effects from long-range field artillery, deep-striking attack aviation, and fixed-wing aircraft are delivered against positively identified armor concentrations in order to attrite them with destruction or neutralization fires. Non-lethal effects from electronic warfare, IO, and other enablers can be used to shape the enemy's actions by preventing their combat power from being massed with the remainder of the enemy through diverting, delaying, degrading and/or interdicting them.

The commander's desire for overmatch can be met through the use of all enablers. Lethal fires can remove enemy capabilities from the battlefield, and non-lethal fires can prevent enemy capabilities from entering the AO at the wrong time and place. Achieving overmatch, in conjunction with shaping enemy COAs by interfering with their decision cycles, will reduce risk and result in an easier close fight. In the case of creating effects on those 12 enemy tanks, if you destroyed six of them with a kinetic strike from fixed-wing aircraft and degraded the communications of six others using electronic jamming (so that they don't receive the order to move towards the BCT objectives), then you have successfully created armor overmatch. The brigade should now only expect to meet eight T90s in the close fight at best.

It must be noted, however, that in order to achieve any success in shaping the enemy in the deep fight that the BCT needs to achieve two things. First, the friendly OODA process needs to be safeguarded. Naturally, if the enemy is able to disrupt our decision-making cycle, then we will not be able to

plan a COA to do the same to theirs. Second, in order to disrupt the enemy's decision cycle and create overmatch in the deep fight, it will need to be planned and resourced during the same MDMP effort that developed the COA for the current close fight. This means that as the BCT conducts staff estimates and develops COAs for the objectives of the close fight, they also have to dedicate time to develop COAs for shaping the enemy in that deep fight throughout the operation. Shaping the deep fight will take place concurrently with operations in the close fight, and the BCT's challenge will be to determine where to dedicate its limited resources.

Supporting the Close Fight vs. Shaping the Deep Fight

As previously stated in the targeting process, there are always more targets than assets to engage them with — especially if one desires to create a compounding effect against a single target with multiple enablers. The brigade understands that shaping the deep fight is important for future operations and impacting the enemy's ability to influence the current close fight, but the conundrum it faces is that every asset used the shape the deep fight may interfere with its ability to support the close fight. Economy of force, a principle of war, states that a force should support the main effort with the preponderance of its capabilities available while only providing to those shaping efforts the minimal amount of resources necessary to accomplish their tasks.

In most situations, the brigade will try to retain as many assets as possible to support the close fight — where Soldiers' lives and mission success most reside — but it is important to also weigh the shaping operations in the deep area heavily as well. Why is this? Because the deep fight will become the close fight of the near future just as the close fight now was at one point the deep fight of the recent past. Imagine if 96 hours ago the brigade utilized its enablers to attrite and influence the current threat they are now facing; then this close fight would pose much less risk to the unit's mission. Brigade enablers could shift more assets to shaping the next deep fight because of the success of the last deep fight. It will take a very competent BCT staff to accurately understand the conditions of the AO, the nature of the enemy, and the necessary effects to consistently and effectively shape the enemy 72-96 hours out. If this can be done, however, the results will be exceptional. Risk to friendly forces and mission accomplishment will be greatly reduced during execution of the close fight thanks to a significantly weakened or shaped threat.

Target assessment and weapon selection in the close fight are important elements when it comes to freeing up brigade-level assets for the deep fight. Proportional fires are important in order to select just the right weapon systems to achieve the desired effects. We could utilize cannon and rocket artillery or drop bombs from fixed-wing platforms, but if the target in question was a squad of dismounted infantry then the same effect can be achieved with mortars and maneuver forces. Unless absolutely critical for mission accomplishment or force protection, brigade- and division-level assets should not be utilized when company- and battalion-level assets can do the same job — not to mention these are more timely and effective as well. The allocation of lethal and non-lethal assets should be planned out during COA development and vetted during wargaming to ensure both the close and deep fight are provided the resources necessary to shape the battlefield conditions toward their desired ends.

Takeaways in Shaping the Deep Fight

The brainpower of a BCT staff is often absorbed in planning and resourcing the upcoming close fight. It is the main effort and there is significant risk associated with decisively engaging the enemy, but it is important to remember that the execution of this main effort — the conditions by which it will be fought — was shaped by what the BCT did in the recent past. Success or failure can therefore also be attributed to the effort the brigade put into fighting the deep fight.

If you take nothing else away from this article, try to remember these key points:

- Ensure every enabler is actively engaged in planning the shaping of the deep fight;
- Ensure enablers are not planning in a vacuum, and that they are constantly working in concert within one another in order to unify their efforts to shape those conditions;
- Develop a plan that utilizes cascading and/or compounding effects in order to make the most of the BCT's resources;
- Compare the nature of effects with the nature of the enemy to ensure that desired effects are achieved and negative effects are not produced;
- Look to deliver effects in order to impact the enemy's decision cycles to keep them off balance and create uncertainty;
- Utilize both lethal and non-lethal effects to create friendly overmatch; and
- During MDMP, avoid directing enablers to solely support the close fight — an effectively shaped deep fight now can mean an easier close fight later.

Notes

[1] ADRP 3-0, *Operations* (November 2016), 1-12.
[2] Ibid, 1-11.
[3] Ibid, 1-6.
[4] Edward A. Smith, *Effects-Based Operations: Applying Network Centric Warfare in Peace, Crisis, and War* (Washington, D.C.: DoD Command and Control Research Program, 2002), 256-257. Retrieved from: http://www.au.af.mil/au/awc/awcgate/ccrp/ebo_smith.pdf.
[5] Army Techniques Publication 3-60, *Targeting* (May 2015), 1-2.
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12 Things Your Unit Should Consider Before Coming to JMRC

CPT MICHAEL P. WALLACE

Observer-controller-trainers (OCTs) at the Joint Multinational Readiness Center (JMRC) have the benefit of watching units from across our Army and allied partners from across Europe tackle a dynamic and challenging problem set. Decisive action training environment (DATE) rotations at JMRC combine fighting a hybrid near-peer threat with the natural friction of interoperability. JMRC has a unique ability to stress the three dimensions of interoperability due to the training center's location in Hohenfels, Germany. Hohenfels has extremely challenging terrain that can restrict any unit's ability to reach its objective. Units that fail to understand the terrain consistently find themselves located by the opposition force (OPFOR) when the OPFOR has a position of advantage. The OPFOR battalion — the 1st Battalion, 4th Infantry Regiment — provides rotational training units (RTUs) with a world-class replication of the hybrid, near-peer threat during DATE rotations. This forces RTUs to understand Soviet-style threat doctrine; units that do not spend organizational energy preparing for the hybrid, near-peer threat always struggle to compete in this challenging and dynamic environment. After observing rotations at JMRC and throughout Europe, the following 12 things are considerations for units preparing for a DATE rotation.

Photo by SGT Seth Plagenza

Soldiers from the 1st Battalion, 503rd Infantry Regiment, 173rd Airborne Brigade, discuss where to place obstacles while conducting a terrain walk during Exercise Allied Spirit VI at Hohenfels Training Area, Germany, on 20 March 2017.

Come to JMRC to Learn

There are two types of unit outlooks coming into a rotation at JMRC: units that come to learn and units that come to beat the OPFOR. OCTs often observe units that come to JMRC with the intent to only beat the OPFOR without capturing lessons learned and growing as a formation from their experience. These units typically marginalize their experience by getting easily frustrated with limitations of the training environment which exist at any Combat Training Center (CTC). Everything at JMRC is geared to provide units opportunities to grow through realistic training environments. It is true that both the RTUs and the OPFOR operate without the fear of death that is present during combat operations. However, even the limitations inherent in the multiple integrated laser engagement system (MILES) or any scenario can be training events and opportunities for units when approached properly.

Photo by SGT Devon Bistarkey

A Stryker assigned to the 4th Squadron, 2nd Cavalry Regiment pulls alongside a U.K. Jackal Fighting Vehicle during an operation at the Joint Multinational Readiness Center on 12 March 2017.

When units come to JMRC, they should approach the rotation with the attitude that the experience will only make the formation better while using the challenges faced to identify areas where the unit can improve. There are limitations and constraints in any operation; can we develop creative solutions and show the agility needed to create opportunities for success or will we simply throw our hands up in frustration?

Transition to Unified Land Operations from COIN

The U.S. Army has more combat experience in its formations today than at any other point in history. Most of our officers and NCOs have completed multiple successful combat tours in Iraq and Afghanistan. As leaders, we should not abandon the hard fought lessons we have learned in these theaters during the counterinsurgency (COIN) fight. However, we must abandon the "been there, done that" attitude shown by a large number of young combat veterans in the force. During the wars in Iraq and Afghanistan, our Army had the advantage of fighting insurgents who lacked night-vision capability, air superiority, close combat attack aviation, artillery support, chemical weapons, body armor, and armored vehicles. When fighting the hybrid, near-peer threat a unit will face at JMRC, the formation must address a similar insurgent threat as well as a near-peer force that possesses all the above mentioned capabilities. It is critical when conducting operations at JMRC for units to understand that they will not always be able to gain fire superiority immediately and that only certain munitions fired in the appropriate amount can have an effect on armored vehicles.

OCTs have observed that RTUs ignore the threat that armored vehicles pose, which typically results in the loss of company-sized elements during the exercise. Prior to coming to JMRC, units should develop and execute a leader development program focused on expanding the understanding of fighting in a DATE rotation. Units need to be prepared to address the armor threat as well as develop systems to operate while engaged in continuous contact with the enemy. From the time a unit enters the training area, it is wise to assume it will be in at least one form of contact with the enemy for the duration of its rotation at JMRC.

Prepare for Interoperability

Multinational interoperability is a challenge that JMRC stresses on an unparalleled scale, mostly due to its location in Europe. Most units have conducted training exercises with multinational allies and partners to some degree, but it is tough to find exercises outside of JMRC that are more than 60 percent non-U.S. units or led by a non-U.S. brigade headquarters. The 7th Army Training Command has identified three dimensions that a unit must consider to be effective when partnering with a multinational unit. The three dimensions of interoperability are **technical**, **procedural**, and **human**.

The **technical** dimension includes finding solutions to the challenges of multinational equipment such as mission command and Army Battle Command System (ABCS) equipment that is simply different than U.S. equipment and therefore not typically compatible. The **procedural** dimension encompasses the training and doctrinal differences between our armies and the efforts we make to bridge gaps using NATO standardization of doctrine. The **human** dimension is best described as our efforts to bridge language and cultural differences to build a shared understanding with multinational partners.

As units prepare for a DATE rotation at JMRC, they should consider a comprehensive study across all warfighting functions aimed at informing initial planning sessions with NATO allies and other multinational partners. The U.S. Army Europe (USAREUR) commander (LTG Ben Hodges) defines the goal for interoperability as having secure FM

communications, the ability to employ digital fires, and development of a digital common operational picture with our multinational partners and allies. Units must understand the capabilities and limitations of their multinational allies and their equipment in order to find ways to bridge gaps in capability with liaison officer (LNO) teams or have redundant analog systems to meet the USAREUR commander's vision for interoperability between units.

Train with Anti-Tank Weapons Systems

Most company/troop-level leaders do not spend the requisite amount of time training to master the use of anti-tank weapons. Since 1939, when the Russians invaded Finland on the Karelian Isthmus, tanks have been a significant challenge for combat units who lack proficiency with anti-tank weapons. A large percentage of units have not integrated anti-tank weapons into their home-station training. Even when units have trained anti-tank weapon operators, the unit leaders lack experience integrating those systems into their operations effectively. OCTs often observe incorrect firing positions and elements attempting to engage armored vehicles inside the minimum arming distance required for the weapon system. These problems are compounded when working with multinational units who may be using a Panzerfaust or Spike system and are not able to properly integrate an unfamiliar system without a full understanding of its capabilities and limitations. If your unit is unable to integrate individual and collective training with anti-tank systems as a part of the home-station training glide path, then dedicate time during troop leading procedures (TLPs)/intermediate staging base (ISB)/reception, staging, onward movement, and integration (RSOI) operations to gain proficiency quickly and integrate a discussion on engagement techniques across your multinational task force.

Get the Most Out of MILES

MILES is a point of contention during every rotation at JMRC because unit leaders typically lack understanding of the system and how to maximize its effectiveness during the rotation. OCTs often hear things like:

"*If this was real combat, that element would be destroyed;"*

"This system doesn't work;" and

"*The OPFOR is cheating because...*"

Leaders who adopt this narrative really only accomplish two things: they expose a low maturity level and demonstrate that they have no idea how to train with MILES equipment. OCTs acknowledge that the system does not perfectly replicate the battlefield effects of combat.

In order to be successful at JMRC, units must understand and accept two key points about MILES and the simulated battlefield environment:

- MILES is designed to provide "a way" to adjudicate effects of weapons systems based on probability, engagement techniques, composition of the engaged vehicle, and ammunition to control a simulated training environment.
- When MILES fails to adjudicate a realistic effect during the rotation, it is the OCT's job to adjudicate effects based on the situation.

Units that accept this and focus on training personnel to use the system properly are immensely more successful. MILES should be treated like any other weapon system or task that needs to be trained on in order to be lethal on the battlefield. Furthermore, units should place command emphasis on understanding how MILES is attached to their assigned equipment, learning how simulated anti-tank systems need to be fired, routinely conducting MILES zero as part of pre-combat inspections, and spot checking to ensure all MILES systems are operational. Units that do not place special emphasis on MILES will not be successful during their rotation.

During every rotation at JMRC, RTUs express frustration during after action reviews (AARs) regarding the replicated effects of their weapons on the OPFOR elements during the exercise. Most leaders who have not served as an OCT or in an OPFOR element at a CTC do not have the context as to why rotational units experience these frustrations. There are two systems that govern battlefield effects replication at JMRC: MILES and the Simulated Artillery and Weapons Effects (SAW-E) system. During the rotation, units will often hear OCTs say that MILES rules the battlefield because OCTs are required to let the systems replicate the fight and only get

Photo by SGT Matthew Hulett

Soldiers from the 2nd Battalion, 503rd Infantry Regiment, 173rd Airborne Brigade, provide security with a training Javelin shoulder-fired anti-tank missile while conducting defensive operations during exercise Saber Junction 16 in Hohenfels, Germany, on 15 April 2016.

involved with adjudication as a last resort. There are several pitfalls that most units discover at the conclusion of a rotation in the final AARs. A common trend OCTs observe is a unit attempting to destroy a target with an inappropriate amount or type of ammunition. Leaders get incredibly frustrated when they call for fire and the vehicles are not destroyed, but they have not engaged the threat with enough firepower to have a lethal effect.

The second point of contention relates to direct fire weapon systems. All .50 caliber ammunition and below has little to no effect on armored vehicles unless the gunner or troop commander is sitting high in the turret and exposed. In order to effectively address the threat armored vehicles pose, units must consider the location and ability of anti-tank weapons and forward observers to identify and engage armored vehicles. As with artillery and mortars, both MILES and SAW-E work by using probability based on the engagement technique, distance, line of sight, and type of vehicle to determine effects. Most RTUs do not consider the low probability that they will have a catastrophic kill with every shot fired from an anti-tank weapon. Leaders need to understand that based on all the aforementioned factors their anti-tank weapons may or may not have effects on the vehicle they are targeting.

Prior to the rotation, units should focus on effective engagement area development that facilitates early, continuous, effective, and redundant engagement of armored vehicles with anti-tank weapons, close air support (CAS), close combat attack (CCA) aviation, and heavy artillery in engagement areas. During fires planning, leaders, fire supporters, and observers need to understand that vehicles will be moving during their engagements, and the observer plan needs to have triggers that allow time for the mission to be processed and shot in order to have effects on a moving vehicle. Incorporating these techniques will ensure units achieve desired effects on the OPFOR throughout the exercise.

Come Armed with Training Objectives

Training objectives are critical in order to focus the OCT observations on areas the chain of command would like to target. Due to the Army Force Generation (ARFORGEN) cycles of the last 10 years, most mid-level Army leaders have grown accustomed to being told exactly what training tasks their unit will execute in order to be successful at their mission rehearsal exercise and eventually on their combat deployment. Now that the Army has transitioned to building a force characterized by operational adaptability and sustained readiness for world-wide contingencies, leaders are relearning lessons on training management and how to build and execute a training glide path.

Prior to coming to JMRC, leaders at every echelon should have a clear understanding of their Department of the Army (DA)-directed mission essential task list (METL). A clear understanding of the unit METL combined with a METL discussion with their higher element commander (see Army Training Network Unit Training Management tutorial) should inform training objectives at any CTC. OCTs at JMRC understand that not all units come to the training center have completed all the requirements in the U.S. Army Forces Command (FORSCOM) Command Training Guidance regarding CTC preliminary training. OCTs at JMRC tell their counterparts to look at the rotation, regardless where it falls in the training glide path, as a way to target specific areas to improve proficiency on METL tasks and improve readiness regardless of the unit's current level of proficiency. Establishing training objectives early and communicating those objectives to the OCTs will contribute immensely to the amount of growth the formation will experience at the training center.

Bring All of Your MTOE Equipment

OCTs encounter units every rotation that leave key modified table of organization and equipment (MTOE) at home station for a variety of reasons. Units leave important equipment such as Joint Chemical Agent Detectors (JCADs), mortar systems, Command Launch Units (CLUs) for Javelin missiles, AT4s, M320 grenade launchers, Joint Service Lightweight Integrated Suit Technology (JSLIST), maps, compasses, Long Range Advanced Surveillance System (LRAS), Lightweight Laser Designator Rangefinders (LLDRs), and thermal sights. Most of the leaders in the organizations that OCTs have observed have conceded that they did not fully understand the capability of the item they left behind and what it brings to the fight. When approaching an era of uncertainty, complexity, and austerity, leaders must remember that the preponderance of our Army's combat experience is not unified land operations against a near-peer threat and must ensure that subordinates understand MTOE equipment is authorized because it is needed and critical for mission accomplishment. OCTs strongly recommend reviewing the unit's MTOE and METL prior to the rotation and bringing all the equipment the Army has allocated the unit to accomplish its METL.

Understand Limitations Imposed by the Terrain

For the most part, all RTUs struggle with the terrain at Hohenfels. The training area there has surprisingly restrictive terrain that causes significant restrictions to unit movement during rotations. Thorough terrain analysis to identify tenable movement corridors and restrictive terrain is key for any unit that intends to conduct operations in the Hohenfels training area. Units routinely underestimate on the length of time necessary for movement to an objective and fail to account for the cost of moving mounted elements through restrictive terrain or through open areas. During engagement area development, units routinely fail to identify likely enemy avenues of approach and locations the enemy will use to bypass their obstacle belts. OCTs rarely observe units releasing reconnaissance assets early enough to do an effective zone or route reconnaissance to confirm or deny assumptions about the terrain and assist in decision points during the planning process.

When coming to JMRC for rotations, ensure that your formation takes the time to thoroughly analyze the terrain and then use your reconnaissance assets to confirm movement corridors and assist with decisions during the planning process and execution. Executing terrain analysis and using

reconnaissance assets early and effectively with a well thought-out collection plan will greatly increase your formation's chances of success during the rotation.

Photo by SPC Nathaniel Nichols

U.S. and Canadian Soldiers plan their next course of action while conducting a leader's recon mission during Exercise Allied Spirit VI at Hohenfels Training Area, Germany, on 19 March 2017.

Understand your Multinational Task Force

Due to JMRC's location in Europe, OCTs observe an incredible amount of friction from units not understanding the capabilities and limitations of their multinational partners. JMRC has a unique ability to stress multinational interoperability by task organizing forces that consist of 60 percent multinational partners. OCTs observe situations where the task force is dealing with a problem that could easily be solved if the staff had a more detailed understanding of the capabilities and limitations of multinational partners based on their national caveats, culture, equipment, and doctrine.

Through numerous AARs and discussions with the rotational units, OCTs understand that most units do not have time during their busy pre-rotation schedules to manage a comprehensive study of their multinational partners. In order to bridge this gap of understanding, the OCTs recommend early discussion with assigned multinational partners with a focus on equipment, capabilities, and employment considerations aimed at creating shared understanding. This should occur at mid and final planning conferences as well as during the Joint Combined Academics Program (JCAP). Units need to address and identify liaison teams early so they will effectively serve as the connective tissue with multinational allies and partners.

Additionally, when the formation arrives at the ISB, have each multinational unit give your staff a comprehensive lay down of their doctrinal capabilities, equipment, and employment considerations to inform the staff's planning efforts. Involving your multinational partners in the planning efforts and having a clear communication plan with them will greatly increase the effectiveness of your multinational task force.

Engagement Area Development is a Continuous Process

Engagement area development is a constant struggle for units at JMRC. Most units only consider the seven steps of engagement area development when they are conducting defensive operations. However, during DATE rotations, OCTs have found these steps are applicable to all facets of unified land operations. For example, using the steps of engagement area development to establish effective observation posts is key to reconnaissance assets conducting security operations. During offensive operations, understanding how the enemy will fight in the defense requires an in-depth look at how the enemy will array its elements.

OCTs observe units that lack understanding of how to effectively plan and integrate fires based on the location of their observers, the approach routes, and the rate of movement of enemy elements. Company fire support elements are routinely frustrated by the lack of responsive fires that could have been mitigated with pre-coordinated fire support measures. Every rotation the engineer obstacle priority rarely matches the supported unit commander's intent because the engineers are not involved in the planning process and do not have the context required to plan and integrate obstacles effectively.

OCTs rarely observe effective engagement area rehearsals mostly due to time and leaders not understanding the benefit of conducting rehearsals. Effective rehearsals could alleviate most of the issues the OCTs observe such as actions when disengagement criteria are met, passage of lines, use of effective triggers, and engagement criteria and priorities. During the force-on-force portion of the rotation, company commanders have not had the time to give detailed enough guidance to subordinate leaders to conduct effective engagement area development. Leaders down to the team level must understand all seven steps of engagement area development and must be able to implement them throughout their operations during rotations.

Maximize the Use of Reconnaissance Elements

During every JMRC rotation, OCTs observe units that do not effectively maximize the use of reconnaissance assets to action a well thought-out, deliberate collection plan to inform commanders at echelon. Over the last 10 years in Iraq and

Afghanistan, reconnaissance forces have been relegated to conducting economy of force infantry missions and serving as an additional battlespace owner. During unified land operations, staffs should not marginalize the reconnaissance effort and ignore the deep fight the way they have grown accustomed to in the last 10 years of combat operations.

Issuing generic priority intelligence requirements that are not tied to decision points for the commander is another systemic problem that stems from our Army's lack of experience with unified land operations against a near-peer capable threat. OCTs routinely observe units that task their reconnaissance elements to perform rear guard and then send combined arms elements directly to an objective with no handover of the objective from a reconnaissance element. Forcing your attacking elements to conduct an approach march to a heavily defended objective without a reconnaissance effort limits the effectiveness of attacking forces during almost every rotation. Commanders should push the staff to construct an operational framework that allows reconnaissance assets to deploy early and provide their doctrinal capabilities to the task force early and often.

Train Vehicle Identification, Order of Battle, and Reporting

During every rotation, leaders misidentify vehicles, do not understand indicators, and misreport to their commanders — all which can have a catastrophic effect on a task force's operations. Leaders and Soldiers at all levels need to have a clear understanding of the difference between a T-72 tank, a Boyevaya Mashina Pekhoty (BMP), Boyevaya Razvedyvatelnaya Dozornaya Mashina (BRDM), and a technical vehicle. Leaders need to understand that reporting that an element has engaged and destroyed two T-72 tanks has a much different meaning for the commander than if the element only actually destroyed two BRDMs. OCTs often observe units that misreport, which forces commanders to make uninformed decisions that have second and third order effects across the formation. Ensure the elements have a clear understanding of the order of battle and know how the enemy will fight prior to conducting operations.

Allowing company commanders to have enough fidelity with the order of battle to assist the unit intelligence officer in determining what element of the enemy formation they are currently fighting greatly increases the situational awareness across the formation and the situational understanding of commanders at echelon.

As leaders move forward and continue to pursue objective T and the sustained readiness model, it is clear that leaders at echelon must engage in the training process and maximize every opportunity at CTCs. These observations were made by OCTs who are learning from challenges faced by leaders currently serving in demanding and challenging leadership positions. These observations are not meant to cast doubt on the abilities of leaders serving in tough assignments, but rather share the tough lessons learned in JMRC's realistic training environment. There are a ton of great lessons learned and best practices that arise from training rotations at JMRC every day, and our Army needs to share these with the entire force to increase our readiness for unified land operations against any adversary.

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Soldiers from the 1st Battalion, 503rd Infantry Regiment, 173rd Airborne Brigade, provide covering fire while conducting a react-to-contact scenario during Exercise Allied Spirit VI at 7th Army Training Command's Hohenfels Training Area, Germany, on 23 March 2017. Allied Spirit VI involved more than 2,700 participants from 12 NATO and Partner for Peace nations.

Photo by PFC Keion Jackson

WINNING IN A GPS-DEGRADED ENVIRONMENT

MAJ LARRY KAY

In March 2015, Headquarters and Headquarters Company, 4th Battalion, 9th Infantry Regiment, 1st Stryker Brigade Combat Team, 4th Infantry Division, deployed to White Sands Missile Range (WSMR), NM, in support of the Joint Navigation Warfare Center's Positioning, Navigation and Timing (PNT) Operational Field Assessment, which was a part of Exercise Global Lightning 2015. The purpose of this operation was to evaluate the effects of some anti-access/area denial (A2/AD) methods on a Stryker brigade combat team's organic vehicles. The company was given a simple tactical order, and for five days it attempted to complete its mission despite operating in a Global Positioning System (GPS)-degraded environment and being exposed to multiple electronic warfare systems.

What is A2/AD?

In 2003, the Center for Strategic and Budgetary Assessments defined anti-access as enemy action which inhibits military movement into a theater of operations and area-denial operations as activities that seek to deny freedom of action within areas under that enemy's control.[1] The National Security Strategy (NSS) concludes the nation must prepare for "...increasingly sophisticated adversaries, [and] deterring and defeating aggression in anti-access environments." Additionally, the *Quadrennial Defense Review* (QDR) acknowledges a challenging operational landscape that includes:

- Increasingly multidimensional conflicts (hybrid threats);
- Threats to the global commons and expansion into space and cyberspace; and
- Growing A2/AD capabilities, including ballistic missile threats.[2]

A2/AD pits strategic assets and dimensions of warfare (space and cyberspace) against the conventional tactical military superiority that the U.S. has enjoyed in recent history. Moreover, while the military has addressed the unconventional challenges posed by incessant counterinsurgencies, near-peer and peer competitors have significantly improved if not exceeded our offensive and defensive A2/AD capabilities. Consequently, as expeditionary warfighters, we have come to expect safe and routine deployments into a theater of conflict and the ability to gain and maintain air, space, and maritime superiority. Put in this context, the company learned quickly that this relatively small exercise was conducted to address a significantly large strategic problem.

Defense Advanced GPS Receiver

Image courtesy of the Direct Reporting Program Manager, Positioning, Navigation and Timing

The Scenario

During the exercise, the Stryker company was tasked to perform basic tasks that a unit would likely conduct in Afghanistan: routine patrolling and reconnaissance that was punctuated with reacts to contact. Since the company conducted this mission at WSMR, it was restricted mainly to roads due to unexploded ordnance (UXO) all over the area. Based on the coordination and limitations with the Federal Aviation Administration and the National Transportation Safety Board, all of the missions were conducted during the hours of limited visibility, which provided additional challenges for the Soldiers.

Prior to the start of the mission, experts from the Space and Missile Defense Command reviewed the use of the AN/PSN-13 Defense Advanced GPS Receiver (DAGR) and demonstrated the signs of degraded GPS. The experts focused on the importance of loading communications security (COMSEC) in the DAGR and an introduction to using the DAGR's "jammer detector." Undeniably, nearly every Soldier in the company was unaware that the DAGR is equipped with such a detector while a few also realized that the DAGR could be encrypted.

The company approached the first mission as it approaches missions in general — by using the "one-third, two-thirds rule" and focusing on rehearsals. Prior to mission execution, we conducted a communications exercise (COMEX), which included short-range and long-range communications checks, free text messaging, and operational graphics verifications on the Force XXI Battle Command Brigade and Below (FBCB2)/ Blue Force Tracker (BFT) – Joint Capabilities Release (JCR).

The company started movement at 2100. After the company reached all of its checkpoints, the scout platoon occupied its

first observation post (OP) while the mortar platoon established its mortar firing point (MFP). About 30 minutes after reaching the OP, the FBCB2s indicated movements from subordinate units which were not expected in this operation. From a command and control perspective, the command was aware that what was observed digitally was not what was supposed to happen, yet the purported accuracy and reliance on FBCB2 compelled the command to verify locations of all friendly units. Once the command confirmed the frontline traces or locations of all of its units, the company continued the mission as planned and then returned to base. The damage was clearly done: leaders had lost confidence in their digital mission command systems. During the after action review, key leaders discussed what they had seen from their point of view and also what specific tactics, techniques, and procedures (TTPs) they had employed in response to the electronic warfare (EW) contact. The company would be sure to share and employ these TTPs for the remainder of the exercise.

The company approached the second mission differently. Now aware that the adversary had the ability to affect its digital systems, leaders could no longer trust them — or at least could not rely on them with the same confidence that they had in the past. Leadership had to rely on all of the other methods of command and control which existed prior to the advent of FBCB2. Leaders modified operational graphics, reduced the intervals between vehicles and elements, adjusted the rate of movement, modified the reporting requirements, and made the combined arms rehearsal (CAR) more in-depth with extensive radio rehearsals. During the CAR, the commander emphasized the importance of analog maps and graphics for all of the units, specifying that if the unit made EW contact with the enemy that it would completely ignore all of its digital systems and transition to analog. Of all of the additional planning considerations, the consensus was that the frequency modulation (FM) rehearsal was the most helpful.

The company began the next mission and almost immediately made EW contact. However, the additional planning and rehearsals mitigated the confusion that the FBCB2 displayed. During this mission, the mortar platoon executed a fire mission without the digital assistance verification to which all indirect assets and personal are now accustomed. The first round was slightly inaccurate, but fortunately the mortar platoon sergeant revolved his training plan around the basics, teaching his mortarmen the proper and effective use of plotting boards. The reward of his basic training plan was that his Soldiers did not need digital systems to be lethal. As always, mastering the fundamentals is at the heart of being a lethal unit.

Prior to the third mission, leaders encouraged Soldiers to be adaptive and creative in fabricating "devices" which they thought would prevent the enemy from affecting their systems (v-shaped hulls initially began as metal plates welded onto the bottoms of vehicles by Soldiers). The results were both productive and amusing, ranging from electromagnets to taping water bottles and helmets around antennas. While the crews attempted to develop innovative solutions, the leadership met again to review the effectiveness of the TTPs that they had thus far developed. The company had now become accustomed to executing the mission without its digital PNT systems. The FBCB2 served as nothing more than an instant messenger and lamp for an actual map and protractor. The company added one more tactic based on the graphics that had been provided: the first element to reach a checkpoint would drop an infrared chem light to mark it for following units. This turned out to be helpful to some of the crews and sections that were not as well trained at mounted navigation. While not a new technique, it was simple and effective. Finally, everyone recognized that simple wristwatches were unperturbed by enemy interference, so leaders manually added the date-time group to the free text messages over FBCB2.

Rehearsals improve success in every environment, especially in a GPS-degraded environment. While not a new maxim, the importance is greater in a GPS-degraded environment. When leaders cannot just ask questions and receive immediate responses, it is critical that everyone knows what is going on.

For the remainder of missions, the company was able to accomplish its mission objectives in a GPS-degraded environment. When you think about training your units, think about the following:

1. Every Soldier should have a map, compass, and protractor. We learned that this is not the case because it was either not on the packing list or there were not enough of them in the unit for issue. On an interesting note, DAGRs outnumber compasses three to one in most companies.

2. Rehearsals improve success in every environment, especially in a GPS-degraded environment. While not a new maxim, the importance is greater in a GPS-degraded environment. When leaders cannot just ask questions and receive immediate responses, it is critical that everyone knows what is going on. FM rehearsals with an operation schedule (OPSKED) or execution checklist (EXCHECK) are invaluable; they enable everyone to visualize the plan in time, space, and purpose. Keeping radio transmissions brief and poignant is absolutely essential.

3. Encrypt everything. While it does not completely defeat the EW threat, it does mitigate its effects. Many Soldiers (especially non-maneuver, fires, and effects types) do not know what equipment can be encrypted (DAGRs, LRAS3, etc…) and what cannot be encrypted. This should become part of the unit standard operating procedure (SOP), and the S6 should ensure the unit has the right COMSEC for every encryptable item. Commercially available GPS devices, which have become standard for small unit leaders, can easily be

manipulated by civilian market GPS deception devices, and it doesn't require a near-peer enemy to purchase these. Any small terrorist organization or non-state actor can purchase these on the Internet. It took leaders 10 minutes on Google to figure this out. In fact, many commands currently prohibit the use of store-bought GPS devices in a field environment. Despite the chagrin of many Soldiers, this restriction ultimately protects the force from adversarial threats in a complex environment.

4. DAGRs have a jammer finder. Educate and train Soldiers how to use this device and train them on what a "jammed" DAGR screen looks like. Leaders can use the jammer finder to learn what the baseline signal level (natural amount of frequency noise) is in their area of operation (AO) prior to starting the mission. Once jammed, they will be able to see what the difference from their initial reading is and then be able to tentatively determine an azimuth to the jammer. Multiple geographically dispersed DAGR jammer finders could potentially conduct an intersection to geo-locate the adversarial jammer. When moving, airborne or multiple jammers could hinder this process. Units can shield some of the effects of EW with both the hull of the vehicle and a Soldier's body. Depending on mission variables, units can position their vehicles to assist in locating the jammers. Keep it within the commander's intent, however, because some units were briefly distracted from mission accomplishment once they took EW contact. Units must immediately report EW interference by sending a meaconing, interference, jamming, and intrusion (MIJI) report and move on to the objective.

5. Master the basics. Many Soldiers were uncomfortable with terrain association, map reading, and mounted navigation. Intersection, resection, and modified resection were critical for the mortar and scout platoons when confirming their locations and enemy locations. The mortar platoon quickly adapted to the environment but was somewhat sluggish and uncomfortable with its transition to analog fire missions. All training should begin with the basics or fundamentals, and that requires pencil, map, protractor, plotting board, compass, and binoculars. These items have always been impervious to EW, yet they are still susceptible to natural human error if proficiency is not sustained. A July 2016 *Army Times* article mentioned that units are returning to the basics of soldiering. If trained properly and continuously, this will enable units to thrive in a GPS-degraded environment.[3] Training plans should distinguish individual skills with and without technical devices, affording an equal amount of time to both.

U.S. Army photo

All training should begin with the basics or fundamentals, and that requires a pencil, map, protractor, plotting board, compass, and binoculars. These items have always been impervious to electronic warfare, yet they are still susceptible to natural human error if proficiency is not sustained.

6. Did the unit plan for it? The purpose of jamming is not to destroy but to disrupt. During the operations and military decision-making processes, did the unit account for this in its timeline? Did the battalion intelligence officer account for EW in the enemy action analysis? It is fair to assume that if an enemy has an A2/AD capability that they will also have night-vision capabilities, so ensure that your TTPs are mission-variable relevant. Combine a GPS-denied environment with an FM-interfered environment and try to visualize how chaotic a combined arms breach would be. A costly reality is that planning for the EW threat will reflect how units plan for chemical, biological, radiological and nuclear (CBRN) events, which is not much at all.

7. Practice mission command over and over. To build cohesive teams through mutual trust, a previous command relationship must exist in order for the art of mission command to complement the science of it. This may not be the case in other units that rely solely on the FBCB2 for their map, messaging, and mission command. Unless you train, it will not be natural. Unfortunately for many, command and control is as foreign as the enemy who is jamming them. Finally, commanders at all levels must temper their demands for immediate information when making requests of subordinates in a GPS-denied environment.

8. Balanced risk management. Does the assessed risk remain the same in an EW environment as it does in a normal environment? How well trained are the company mortars, fire direction center (FDC), battalion mortars, and battalion FDC? More importantly, how well trained are the forward units at providing their frontline trace without the aid of a DAGR? How does the unit manage airspace in a GPS-denied environment? We prefer simplicity, but simplicity is not always an option. We may just have to accept more risk, but training with the absence of technology will mitigate the risk significantly.

9. Develop an SOP that can survive in an EW environment. Engineers and experts frequently asked leaders, "What TTPs would you add to your SOP?" There is really no unique TTP designed specifically to counteract the effects of jamming, but a unit can absolutely mitigate it. How much emphasis do we place in the communications plan? Does the unit have signal operating instructions or just a primary, alternate, contingency, emergency (PACE) plan which consists only of P and A? Does the unit have a PACE plan for navigation? Does the unit have methods of marking and does it have enough in supply? Does everyone in the formation, to include staff sections and operational support elements, know hand and arm signals and have they trained to use them?

These TTPs will not completely counter the threat posed by our enemies. However, the challenges for small units posed in a GPS-degraded environment can be overcome if units focus on the fundamentals and basic soldier skills. If you take anything away from our experience, it's that rehearsals are the most important part of surviving in a GPS-degraded environment. For this company, the focus and reliance on analog systems and conducting extensive and various rehearsals prevailed as the best TTP to combat the adversarial effects on all of the digital systems. It turned out that the best defense against 21st century modern warfare was to rely upon the fundamentals from the 20th century: maps with graphics, compass, and protractor.

Notes

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Sociology for a Comprehensive PME Curriculum

LTC (RETIRED) MARTIN M. REYNA

Sociology and the Military

The social paradigm shifts in the 21st century have impacted every institution from the family to the military. Today, it is an operational reality that the social and political climate in a contemporary operational environment (COE) plays a vital role in the military decision-making process (MDMP). Consequently, it is important that leaders understand how the fundamentals of sociological concepts such as social networks and sociological imagination can be an advantage in the decision-making process in future combat operations. Similar to understanding the historical and legal implications in decision making, sociological concepts add another perspective when making decisions in full spectrum operations that are characteristic of highly complex and challenging situations.

Sociology involves the investigation of the roots, structure, customs, habits, objectives, and activities of society. As such, the military, as an important aspect of American society, is subject to a sociological understanding. Based on the creative insights and collaborative efforts of scholars during its formative years, military sociology was recognized as a subfield of sociology in the mid-1950s. Although there is a large body of literature on military sociology, the study of sociology is practically non-existent in U.S. Army schools and training centers. In particular, military sociology as a core subject is not included in U.S. Army professional military education (PME) programs.[1] Take for example the Command and General Staff Officers Course (CGSOC) curriculum.[2] Although CGSOC does contain courses in humanities and social science (to include military history, military leadership, military law, and military ethics), the subject of sociology is only mentioned in passing as a footnote. The courses mentioned above are embedded in the CGSOC curriculum to stimulate student thinking and to develop a deeper understanding and appreciation of the cause and effects of social phenomena in the context of military affairs. The inclusion of a military sociology curriculum is intended to enhance and broaden the leader's knowledge and world views particularly within the context of high intensity and rapidly changing military scenarios.

Incorporating the fundamental principles of sociology into leadership development improves a student's capacity to become more open-minded, critical, reflective, and receptive to critical-thinking processes essential in the development of the competencies for better decision making. By possessing a fundamental knowledge of sociological concepts, leaders will be able to make critical assessments and decisions associated with the present operating environment. The expectation is that the study of sociology will contribute to the development of critical-thinking and problem-solving skills that will prove useful in real-life decision-making situations.

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The most promising aspects of sociology are seen in the application of the sociological imagination in MDMP and the use of social network analysis (SNA) in military operations. The expectation is that leaders will be equipped with the critical-thinking tools needed to perform their duties in a successful manner. The application of sociological theories and concepts are analogous to using a camera with a wide-angle viewfinder that opens a narrow field of vision to a much broader landscape. In a 2001 *Military Review* article, MAJ Scott Efflandt and MAJ Brian Reed argue that the value of sociology in officer education is immeasurable for the professional development of potential leaders.[3]

By adding the sociological paradigm to the decision-making toolbox, decisions made within the context of historical events and ethical considerations will be more meaningful, sophisticated, and precise. Ultimately, relying on sociological perspectives will serve leaders well when called upon to make decisions ranging from routine choices to complex strategic decisions.

Military Sociology

Sociology awakens our consciousness to understand how social structures can influence the events that impact on the lives of individual members of society. Until about 30 years ago, the military was relatively immune to external social influences, but the end of the Cold War era changed how we think about the realities in the COE.[4] Most notably, recent social movements and political events worldwide have impacted the military as an institution that once was considered impenetrable by external influences. Consequently, time-honored traditions and values that for centuries were considered the hallmark of military culture have undergone fundamental change.

The social problems and issues that have affected the

internal dynamics of the military have increased significantly over the past 30 years and can be grouped into two categories. The first group of issues can be classified as micro-social and reflect changing social and ethical attitudes by American society, with the result that we now see new policies and reform toward society's attitude concerning women in combat, drug abuse, minorities, sexual harassment, tattoos, toxic leadership, and sexual orientation.

The second category of social changes emanates from the macro-social level, also referred to as the global society. The most pressing concerns, which have profound implications for changes to military culture, are advanced engineering, weapon technology, sophisticated communications systems, instantaneous acquisition of information, economic instability, border disputes, drug trafficking, rogue governments, and the spread of international terrorism.

The two distinct categories of sociological issues provide the impetus for the conceptual framework for a model military sociology program designed for PME. Within this framework, the program has four academic components: introductory, intermediate, advanced, and capstone. The proposed curriculum consists of subject-specific courses that are integrated in the framework of an interdisciplinary curriculum. First, the instruction of sociology courses is synchronized with common core learning objectives such as critical thinking and decision making. Secondly, the military sociology curriculum is interwoven with the courses on military history, leadership, and ethics. For example, an integrated and interdisciplinary design provides a balanced approach for teaching social science courses alongside the core curriculum of PME-designated courses such as CGSOC. Collectively, the quartet of the interdisciplinary themes of history, ethics, leadership, and sociology forms the social science foundation that will prepare leaders for assignments with friendly forces in the joint operational arena.

Application of Sociological Concepts

In keeping with PME education goals, the model curriculum provides students with a sociological overview and two key sociological concepts that possess tremendous potential for military application: the sociological imagination and SNA.

The sociological imagination can be used as a thinking tool for understanding and resolving problems and issues that are central to the military profession.[5] The concept of sociological imagination was introduced by C. Wright Mills and is intended to lift us outside the immediate boundaries of our personal world so that we can have a broader appreciation of reality.[6] The most significant advantage for using sociological imagination is that it helps leaders analyze the impact of local events with a global-social perspective.[7] Consequently, when a leader uses sociological imagination, his decisions are based on a broader set of perspectives that the leader can use to explore contemporary social issues through the use of case studies, personal experiences, and interaction between students.

With its focus on relational networks, SNA has been used by the U.S. Department of Homeland Security to identify terrorist networks and by the U.S. Army to neutralize enemy cells that have been formed to manufacture improvised explosive devices (IEDs).[8]

Photo by Milton F. Mariani Rodriguez

International students at the Western Hemisphere Institute of Security Cooperation at Fort Benning, GA, discuss an assignment with an instructor.

Most notably, SNA was used in the capture of Saddam Hussein in 2003 by U.S. forces during Operation Red Dawn. In his 2006 doctoral dissertation, Brian Joseph Reed attributed the success of this historic mission to pinpointing the structural and relational characteristics of Saddam Hussein's social network, a clear use of SNA.[9]

Reed wrote, "Network concepts allowed me to highlight the structure of the previously unobserved associations by focusing on the pre-existing relationships and ties that bind together such a group."[10]

The aim of the SNA module is to introduce the basic principles of SNA as a sociological process that can be used to analyze empirical relational data gathered on social entities and organizational functions and to chart these relationships.[11] Students will be introduced to the graph theory, which is used to analyze and portray structural studies of the relationship

between actors and structural properties within a network to facilitate the decision-making process.

SNA is intended to focus primarily on the theoretical aspects of this sociological tool by studying and analyzing case studies that illustrate the use of SNA in military-related operations.[12] Case studies include contemporary literature on the capture of Saddam Hussein and the identification of terrorist networks and cells in the U.S. by Homeland Security. The case studies will aid in understanding how the dynamics of SNA can be applied to a variety of issues in military operations. SNA classes will be synchronized with common core subjects such as critical thinking and decision making in leadership.

Model Military Sociology Curriculum

Overview: This program introduces students to the relationship between society and the armed forces as a social institution. To gain a full appreciation of military sociology, the curriculum is comprised of five modules. These include the historical evolution of the relationship between society and the military that witnessed transformation with the end of the Cold War; the effects of globalization; the transformation of the military, the role of the military in the 21st century, and the changing cultural values within the military; and the new vision for training military leaders.[13] The modules are designed to introduce the student to sociological theories, concepts, and methods in preparation for military assignments worldwide in the 21st century. The overarching goal of this program of study is the application of sociological perspectives and tools in the development of the competencies that are required by leaders to be successful in future combat operations.[14]

The components of the model sociology program are designed in a progressive fashion to support the Army's leader development goals. Each component represents an independent tier with a set of clearly distinguishable goals and terminal learning objectives. This approach allows for an integrated and interdisciplinary curriculum that emphasizes a holistic approach to the development of the core leadership competencies. The model sociology program is structured in a tier fashion to take students from the introductory level that includes fundamental concepts and theories to the advanced level, where students have the opportunity to learn and apply sociological perspectives to military applications.

Sociology Curriculum Strategies for CGSOC

The model military sociology curriculum is designed for integration and synchronization with the learning objectives of PME leader courses. For example, the sociology model can be integrated to run concurrently with the CGSOC Common Core Course. The introduction of sociology courses will allow for a holistic approach that incorporates social science perspectives into the overall learning process as it relates to MDMP.[15] The decisions that students make become more meaningful and relevant when based on historical, ethical, and sociological perspectives.

Summary

It is difficult to imagine a time when the need to transform military education has been greater. The profound social changes that have emerged since the beginning of this millennium have been the impetus for an unprecedented paradigm shift across all institutions. The literature on military education is replete with why and how competency skills need reshaping to meet the demands of the changing military landscape.

In a 2010 *Army* magazine article, GEN Martin E. Dempsey noted the necessity to build the right Army. He said, "The Army's conceptual framework provides the intellectual underpinnings necessary to make institutional and operational full spectrum operations for our Army and to integrate our efforts among doctrine, organization, training, materiel, leadership, personnel and facilities domains and warfighting functions."[16]

The sociology curriculum is intended to prepare leaders to be self-aware and adaptive critical thinkers capable of making timely decisions that will challenge the leader in unprecedented ways. The design is in response to the transformation initiatives that the Department of the Army has established

Figure 1 — Model Sociology Curriculum Components

Curriculum	Component (24 Hours)	Module	Sociology Course
Military Sociology	Introductory (6 Hours)	Intro Sociology	S1: Understanding Sociology S2: Social and Cultural Themes S3: Social Change in the Global Community
	Intermediate (6 Hours)	Military Sociology	S4: History of Military Sociology S5: Contemporary Military Issues S6: Military Application of Sociological Concepts
	Advanced (8 Hours)	Sociological Imagination	S7: Introduction to Sociological Imagination S8: Application of Sociological Imagination
		Social Network Analysis	S9: Introduction to Social Network Analysis S10: Application of Social Network Analysis
	Capstone (4 Hours)	Military Sociology	S11: Military Sociology Seminar

to meet the needs of 21st century leaders. Unlike the Cold War doctrine that was developed for fighting force-on-force, today's Army doctrine embodies a variety of warfare missions that include emergency relief, peacekeeping, stability missions, and limited intervention.[17] Moreover, social changes worldwide have affected how the Army will train and educate the members of the active and reserve force components.[18] The overall Army mission is to equip leaders with the demonstrated mastery of the skills and core competencies necessary when confronted with leadership situations and critical decision-making scenarios.[19] The model sociology curriculum is responsive to this mission and is intended to support the goals to prepare U.S. Army leaders for worldwide assignments in the 21st century.

Notes

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[18] Field Manual (FM) 3-0, *Operations*, (June 2001).

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Cognitive Dominance through the Engagement Decision Matrix

BG (RETIRED) ROGER WARD
SGT TYLER JACKSON
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NATHAN LOWRANCE

Is disobedience the key to winning battles? A new study suggests that might be the case. When tanks, artillery, close air support, and targeting assets are removed from the infantry squad in battle, it appears that squad leaders win battles if they are willing to take action, even when their actions are in conflict with mission orders.[1]

The autonomous authority to engage the enemy in battle, or not, can produce cognitive dominance and may ultimately achieve a decisive overmatch for U.S. infantry squads. In theory, mission command philosophy permits subordinate leaders the authority to disobey orders and directives — if only temporarily — when deciding whether or not to engage an enemy force.[2] The squad leader's authority and willingness to disobey orders and make quick decisions on behalf of his commander may just be the key to cognitive dominance.

That was the principal finding of a recent phenomenological study conducted last year.[3] The research sought to describe squad leader decision-making experiences within the framework of battle engagement, including those last moments leading up to the engagement. As participating squad leaders reflected on their successes and failures in both training and battle conditions, the common experience of success centered on the squad leader's cognitive flexibility to solve problems. Squad leaders explained that their solutions were very often in direct conflict with mission orders, albeit only temporarily, until the immediate problem was solved and the squad leader could once again focus on the mission at hand. This was how they reconciled various factors demanding their immediate attention.

This discovery was interesting, particularly given that the Army has recently insisted that there are no existing models of cognitive dominance for infantry squad leaders engaged in high-stakes, time-pressured decision making on the battlefield.[4] Furthermore, Army research suggests that infantry rifle squads have not improved since the onset of World War II.[5] To address

A Soldier with Company A, 1st Battalion, 155th Infantry Regiment, Mississippi Army National Guard, verifies information during a mission as part of the unit's National Training Center rotation on 31 May 2017 at Fort Irwin, CA.
Photo by SSG Veronica McNabb

this issue, the Army conducted the Squad Overmatch Study through the Program Executive Office of Simulation, Training, and Instrumentation (PEO STRI), which in turn recommended three attributes for enhancement: technology, squad structure, and human dimensions.[6]

The Army is seeking solutions to infantry technological attributes through an initiative called "Squad: Foundations of the Decisive Force (SFDF)" at Fort Benning, GA.[7] The idea is that battlefield operating systems organic to the infantry squad may be improved to better enhance intra-squad communications through Global Positioning Systems interfaced with squad targeting systems that connect to assets of higher echelons at the battalion or brigade level, mainly field artillery and close air support targeting systems.

What remains unaddressed is the squad attribute of human dimensions. So, what does this term mean? The Army nebulously defines human dimensions as "cognitive, physical, and social components of Soldier... leader, and organizational development and performance essential to raise, prepare, and employ the Army in unified land operations."[8] In his monograph for the School of Advanced Military Studies, MAJ Philip J. Mundweil described human dimensions as "conditions that members of a team develop, which increase[s] the capability of the formation."[9]

PEO STRI more concisely describes human dimensions as an array of considerations — leader situational awareness, communicative process, and collaborative teamwork.[10] Yet, the PEO STRI study focused only on what squad leaders perceived while offering no cognitive models of how squad members should think. While Mundweil identified cognitive skills as a critical component of human dimensions, he noted that models enabling cognitive dominance of the infantry squad were starkly absent from past work. He wrote, "Missing from all these studies was an attempt to develop capability based on improving cognitive skills of the individuals who make up the squad or to increase capacity through enhanced training of the human dimension."[11]

The phenomenological study conducted last year by some of the authors of this article (Larsen, Lowrance, and Jackson) refined the term "human dimensions" to include cognitive models of decision making, which are predicated on situational awareness, with the intent to enhance performance of the squad's communicative processes and collaborative teamwork.[12]

Now, contextually prescriptive cognitive models do exist within the Army. They were the result of battle drills employed during the wars in Southwest Asia because the Army relied heavily on decentralized operations. The Army therefore implemented prescriptive battle drills as a means of the commander exerting a measure of control of battle engagements with enemy forces, even in the commander's absence. For example, this situation prompted a collaborative effort by all branches of the U.S. armed forces to produce a field manual (FM) on convoy operations.

FM 4-01.45, *Tactical Convoy Operations*, recognizes a rudimentary decision matrix for executing battle drills during convoy operations, as does FM 3-21.8, *The Infantry Rifle Platoon and Squad*, in the section discussing the implementation and selection of battle drills.[13] These cognitive models of battle drill selection have invariably fostered a normative practice of engagement-through-attack for the infantry squad. Prompted by the identified gap in cognitive models, Larsen and his associates conducted qualitative research through interpretive phenomenological analysis with the goal of describing the tacit cognitive process inherent of squad leaders making decisions prior to and during battle engagements. What concerns do squad leaders express with current models of decision making? And what factors do squad leaders consider when making decisions during battle?

"Missing from all these studies was an attempt to develop capability based on improving cognitive skills of the individuals who make up the squad, or to increase capacity through enhanced training of the human dimension."[11]

The Larsen study employed interpretative phenomenological analysis (IPA), a research approach developed by Jonathan A. Smith, Maria Jarman, and Mike Osborn. This method uses focus group discussion through open-ended, semi-structured interview questions rather than interviews with directed questions.[14] The idea was to capture detailed transcripts of squad leader descriptions while collaborating with them toward meaningful insight. IPA is at its core inductive and idiographic, demanding a detailed, nuanced analysis of the data.[15] For this reason, four participants were selected through purposive and homogeneous sampling, which is normative practice for an IPA study.[16]

Although the study by Larsen and associates employed squad leaders from infantry, engineer, and military intelligence (MI) backgrounds, purposive and homogeneous sampling of these squad leaders ensured participants had experiences in common and had demonstrated appreciable success within decision-making competency as squad leaders engaged in either authentically simulated and/or actual battlefield engagements.[17]

IPA is not a prescriptive methodology, but rather it allows for individuality and flexibility of approach to data analysis.[18] This is not to say IPA lacks a systematic process, but rather while "there is a basic process to IPA (moving from the descriptive to the interpretative), the method does not claim objectivity through the use of a detailed, formulaic procedure."[19]

In this manner, IPA offered a dual process by which the squad leaders reflected on their decision-making experiences in battle in order to articulate tacit knowledge and make sense of those individual experiences, and in turn the researchers interpreted participant dialogue to achieve a more holistic description of the phenomenon.[20]

The nature of phenomenological study is often described as a conversation of comparing "how green is green to you?" Even with purposive, homogeneous sampling, no two people experience decision making as a squad leader exactly the same way. True to form, the participants of the Larsen study began the conversation with a wide divergence of perspectives, as expected. Still, squad leader perspectives appeared to narrow toward an appreciable measure of consensus over the course of the three-day discussion.

The Larsen study discovered four emergent themes:

(1) A perceived lack of authority for flexible decision making;
(2) A lack of transferability of existing cognitive models;
(3) Factors of consideration squad leaders contemplate prior to and during battle engagement; and
(4) Factor sequencing of considerations prior to and during battle engagement.[21]

The effort to describe squad leader experiences presented an opportunity to codify a new cognitive model of decision making that the participating squad leaders named the Engagement Decision Matrix (EDM). Unlike earlier models that have predictably resulted in binary fight-or-flight outcomes, the EDM prompts squad leaders with four questions to arrive at five possible outcomes: bypass, hasty attack, supported attack, defend, or withdraw.[22]

Lack of Flexible Decision-Making Authority

Squad leaders saw almost instant consensus in identifying the problem with the present cognitive models such as those found in FM 3-21.8 and FM 4-01.45 that invariably foster a normative practice of attack for the squad. Participating squad leaders described the Army cognitive models' emphasis on attack as inflexible. Experiences with these models were described as limiting the squad leader's tactical options and in so doing rendered the squad's actions as predictable in the face of an intelligent enemy. Moreover, the squad leaders explained that the emphasis on the tactic of attack as the primary and preferred action all too often resulted in unnecessary casualties and failed missions.

The squad leaders displayed keen awareness that violence of action — an immediate and brutal attack — can in very specific circumstances produce victory for the squad. This is particularly true in cases such as the near ambush, in which there is often less than a second to make a decision and the outcome is often disastrous for the unsuccessful squad.

Regarding that reality, the participants were reluctant to categorically forfeit the option of aggressive attack. Yet, even in light of this reluctance, the squad leaders readily identified the emphasis on attack as the principle defect of the cognitive model. They described the Army's model as being predicated on the attack, with other options being given lesser consequence and therefore making them less desirable than an immediate implementation of violence.

Lack of Situational Transferability

Interestingly, participating squad leaders from combat engineer and MI backgrounds brought up the issue of transferability of the cognitive model for decision making. This might be explained by the emphasis placed on the descriptor "during battle," which is not exclusive to the infantry but is the expressed responsibility of the infantry. However, all participants had routinely embedded in combat patrols. The idea of making decisions in battle wasn't an anomaly to any of them. Furthermore, the study's infantry squad leaders also expressed a dissatisfaction with the Army's current cognitive models because the models weren't perceived as transferable even between specific conditions of battle engagements.

The Army's models of decision making, such as variants for dismounted battle drills and for mounted convoy operations, are all unique to specific conditions of battle.[23] These models work well within specified conditions but do not transfer well to other conditions of battle engagement. However, the conditions in which a squad might engage the enemy in battle can easily number into hundreds of variations. Participants of this study relayed bitter experiences of using these cognitive models within inappropriate conditions. Squad leaders described those experiences as often resulting in vulnerability to the squad members and needlessly exposing Soldiers to harm.

Factors of Consideration in Battle

The squad leaders then began to discuss the factors they consider in battle and immediately prior to a battle engagement. The conversation was intense and often argumentative. Nonetheless, four factors of consideration emerged: mission, rules of engagement (ROE), commander's intent, and a comparative estimate of the friendly and enemy disposition.

Mission: The focus group reached an appreciable measure of consensus on the factor of mission as a consideration fairly quickly. It may be more accurate to say that none of the participants denied the mission was a critical factor in deciding whether or not to engage enemy in battle. Yet the participants also seemed to describe the mission as "what the squad is to do." In this way, the mission is what the squad prepares for, and the squad leader continually supervises. The mission is perceived as a factor of consideration because it directs the actions of the squad.

ROE: The issue of ROE rose to the forefront of the conversation on the second day of the study, particularly the segment of ROE covering force protection guidance and a Soldier's right to self-defense. While the focus group had quickly and unanimously identified the Army's predicated fixation on the attack as a weakness of current cognitive models, these same participants also expressed a sincere desire to retain the option of violent attack for circumstances demanding force protection and self-defense. Participants described the ability to protect the well-being of the squad as a critical factor of the squad leader's decision making.

Commander's Intent: As a whole, the focus group seemed to place far more emphasis on the commander's intent for the mission. Participants described commander's intent as an instrument that informs the squad leader "how we assign

Photo by SGT William A. Tanner

A Soldier from Company D, 2nd Battalion, 503rd Infantry Regiment, 173rd Airborne Brigade, takes a knee after placing his Soldiers into tactical firing positions while participating in the unit's cumulative fire training event in Wedrzyn, Poland, on 30 November 2016.

priority" through the commander's descriptive terms, rather than through the mission's prescriptive orders.

At this point there was considerable dispute. Half of the squad leaders agreed that commander's intent, along with ROE and the mission, should be factors of consideration when deciding whether or not to engage an enemy force. However, other participants asserted that very rarely had this been the practice. All of the participants offered examples in which squad leaders violated existing cognitive models of decision making within the application of Army training. The participating squad leaders agreed that this was routine practice. This is a nuanced point, but one worthy of discussion. The purpose of this study was to identify tacit knowledge inherent of the exemplary squad leader decision making in battle. The participating squad leaders reported that all too often during training, the Army unit trainers and evaluators placed pressure on squad leaders to employ cognitive models inappropriate to the situation at hand. The result was that many squad leaders learned to ignore the models entirely and order an attack by default, as if it were the inevitable outcome, thereby disregarding the mission, commander's intent, and ROE when they made contact with the enemy.

Estimate of Enemy vs. Friendly Forces: Another identified factor of consideration involved an estimate of the enemy's relative combat power in comparison to the combat power of friendly forces. The word "estimate" may not be entirely accurate. The participants described it more commonly as a perception or an awareness of enemy combat strength as compared to the friendly squad's combat strength. Under the pressure of time or the hazard of enemy fire, the estimate took the form of assumptions based on the squad leader's perception of the situation.

Curiously, the focus group appeared to place less emphasis on this factor of consideration. That may be understood, as the four participants have often experienced situations in which a squad leader misperceives the situation. The enemy force may actually be larger or better armed than his own squad, or it may possess superior terrain from which to defend or attack. That misperception was described as being neither negligence nor bravado on the part of the squad leader, but instead participants regarded this experience as simply an inherent risk of leadership in warfare. Combat is dynamic. Participants describe the battle engagement as a fluid situation in which a misperception of relative combat power may persuade the squad leader to

an incorrect assumption of who has the upper hand. Is it the friendly squad or the enemy force?

Factor Sequencing

The most heated debate between the participants involved the sequence of factors that squad leaders consider in or immediately prior to battle. A line was drawn between those squad leaders who insisted on force protection as the first consideration versus squad leaders who favored freedom of maneuver as the first consideration. In a sense, this became a question of force protection inherent of ROE versus the implied maneuver of commander's intent. Those favoring commander's intent as a squad leader's first consideration asserted that considerations of the mission and even ROE were overly prescriptive and limited the squad leader's option to maneuver, specifically to bypass each enemy obstacle that wasn't within the parameters of the commander's intent.

Those participants favoring ROE as the first consideration insisted that squad leaders must retain the ability to protect the squad through violent attack. The principle concern here was the proximity of the danger to the members of the squad. Yet, these squad leaders acknowledged that this was only the case if the level of danger was immediate. Indeed, they argued that a salient aspect of the decision whether or not to engage an enemy force in battle was to create enough time and space for the squad leader to develop a better plan of action and to coordinate resources to effect that plan.

Codifying a Cognitive Model

At this point the research team realized the situation afforded a rare opportunity to codify a cognitive model — if the two opposed camps of squad leaders could reconcile their objections. While not an original goal of this study (and indeed not a typical outcome of phenomenological research), it seemed counterintuitive and counterproductive not to pursue a possible solution.

First, all of the participating squad leaders had agreed that they routinely violated existing cognitive models offered through Army field manuals. But how did they do that? Specifically, what cognitive coping mechanisms did they employ?

Second, two camps of thought had emerged — one insisted that ROE and force protection measures took priority for decision making in battle, and the other insisted that maneuverability in accordance with the commander's intent took priority for decision making in battle. Could both camps be correct? Was the issue situational dependent in nature? EDM (pronounced "idiom") emerged as a cognitive model through the participants' deliberate effort to reconcile different viewpoints and produce a rich, meaningful description of their tacit understanding of squad leader decision making in the fluid battle engagement.

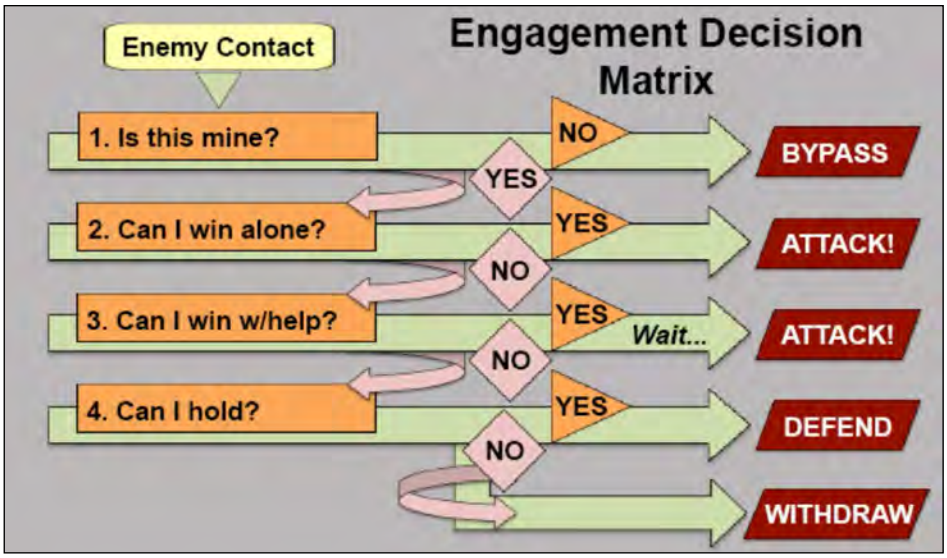
Squad leader decision making is a highly complex task under austere conditions. The stakes are high, and time and space are short. The participants of this study describe squad leader decision making as directed toward achieving a tactical mission (e.g., "what we must do") while weighing guidance provided in the commander's intent (e.g., "how we assign priority") while also remaining compliant to the legal parameters and force protection measures inherent in the ROE. Squad leaders conduct decision-making in a wide variety of terrain, weather, and visibility conditions that obscure the squad leader's perception of the enemy force. The squad leader must make a decision whether to engage the enemy in battle in mere seconds. All too often that decision is based on an obscured, imperfect perception of the battlefield.

The resulting EDM cognitive model appears to satisfy each identified factor of concern (see Figure 1). The model presents a near-linear process of the coping mechanisms squad leaders describe employing under the stress of battle and prior to an impending battle engagement.

1. "Is this mine?"

Here the squad leader asks, "Is this task within the scope of my mission and my commander's intent, or are we saving ourselves from the immediate threat of destruction in accordance with the ROE?" The squad leader must decide whether to direct his squad to engage the enemy force, given his mission, commander's intent, and ROE.

Figure 1 — Engagement Decision Matrix



The most critical component of this decision is the enemy threat's proximity. When the enemy patrol is close enough to present a serious threat to the squad, such as an ambush, then force protection concerns as per the ROE immediately supersede consideration of the mission or commander's intent. Soldiers retain the basic human right to self-defense.

If the squad leader decides there is no immediate threat from the enemy and that engaging the enemy force does not meet the parameters of his mission

or commander's intent, then a tactical bypass is the best option. The squad leader orders his Soldiers to continue their mission, but observes the enemy and reports the enemy's position to higher command.

If the squad leader decides that engaging the enemy force is well within his mission and commander's intent, the matrix then transforms from a cognitive task of triage filtering, to a cognitive task of procedural processing. That is, once the squad leader decides to engage the enemy, he has to decide on a best course of action. Courses of action are addressed by subsequent questions in the EDM cognitive model.

*The EDM offers squad leaders **cognitive dominance through flexibility** in decision making. Unlike earlier models that typically resulted in binary **fight-or-flight outcomes, the EDM asks four questions to arrive at five possible** outcomes — bypass, hasty attack, supported attack, defend, or withdraw. And the entire process often occurs in just seconds!*

2. "Can I win alone?"

At this point, the squad leader asks, "Can my squad win this battle engagement alone?" The question at hand is whether his squad will be successful if attacked. This decision requires the squad leader to assess the enemy disposition mentally arrayed against his squad's disposition. Does his squad retain an element of surprise? Does his squad hold advantageous terrain? Does his squad have superior numbers of troops or better weaponry than the enemy?

If the squad leader decides "yes" that he perceives his squad is capable of destroying the enemy force under their current dispositions, then he must direct his squad to attack. After all, the question as to whether an attack is appropriate within the scope of the mission has already been positively established in the first step of the EDM cognitive model. At this point it is entirely appropriate for the squad to attack. The squad leader needs to array his combat power, select a suitable battle drill, and direct his squad in an attack.

If the squad leader decides "no" — that he believes the enemy has a distinct tactical advantage — then he must look for an alternative course of action. That can be addressed in the next question of the EDM cognitive model.

3. "Can I win with help?"

The squad leader now asks, "If I cannot win alone, are there other resources available to me?" If the enemy patrol has a distinct tactical advantage over the friendly squad, can the squad win a battle engagement if they are assisted from a nearby friendly unit or asset?

If the answer is "yes," then the squad leader must begin coordinating as quickly as possible with that nearby friendly unit or asset to conduct a supported attack against the enemy force.

If the answer is "no," then the squad leader must again seek another, more viable course of action by asking the next question in the model.

4. "Can I hold what I've got?"

The squad leader asks, "Can my squad defend our current position given our present combat power if the enemy conducts an attack?" Here, too, the squad leader must assess the enemy disposition mentally arrayed against his squad's disposition — particularly the relative combat power of both his own squad and the enemy force. Also germane are terrain considerations of avenues of approach, cover and concealment, observation, key terrain, and obstacles (OCOKA).

If the squad leader decides "yes" his position is defensible, then he arrays his squad into a suitable formation and directs them to establish a defense. This position may present nothing more than a temporary blocking position to fix the enemy force, but such is the nature of defense — defend only long enough to amass combat power and coordinate offensive action.

If the squad leader decides "no" that his position is untenable due to either relative combat power or terrain, then he must direct his squad in a tactical withdraw.

The EDM offers squad leaders cognitive dominance through flexibility in decision making. Unlike earlier models that typically resulted in binary fight-or-flight outcomes, the EDM asks four questions to arrive at five possible outcomes — bypass, hasty attack, supported attack, defend, or withdraw. And the entire process often occurs in just seconds!

Additionally, the EDM cognitive model may transfer across a broader spectrum of situations and battle conditions than earlier cognitive models. The EDM appears to apply to the complete range of tactical conditions inherent of battle engagements, and if so, may offer a considerable measure of cognitive dominance for a broad range of missions. Indeed, the EDM may potentially have critical implications as a decision-making model for scholarly academics, political, and business enterprises, plus medical and emergency services.

Limitations & Future Study

Interpretive phenomenological analysis is subjective by nature because the researchers are the instrumentation, and findings are limited to the researchers' interpretation.[24] Yet this method is an experiential approach to qualitative research that seeks to understand the lived experience of the participants — specifically squad leaders tasked to conduct combat patrols.

Too, the small number of participants in this study was both an asset and a limitation. Within the framework of IPA, a small number of purposively selected participants on a basis of homogeneous sameness is advantageous because it affords an in-depth exploration of the phenomenon.[25] Yet the very small number of participants also raises the question of

whether or not the described experiences resonate with larger populations, even within the homogeneous demographic. And in part, that may have to do with human memory. This study was conducted through memory recall of highly volatile, emotional incidents of battle engagement. Memory is elusive and recall is often imprecise. Thus, while the research team dutifully attempted to represent participants' interpretations of their own experiences, the IPA method demands that researchers also offer interpretation of the participants' interpreted meaning. This forms an analogous asymptote, whereby the participants' interpreted meaning represents a curved line that approaches but never meets the researchers' straight line axis of interpretation. The EDM cognitive model may not represent a rigid process of any single person's experience, but instead approximates a highly complex cognitive process authentically enough to be useful as a description of processing high-stake decisions under austere conditions.

The EDM cognitive model will of course require further research in wider application to both qualify and quantify confirmation of the findings of this study. Yet on the face of it, the findings of this research appear to vindicate the premises of autonomous decision making and mutual trust between commanders and subordinates that are inherent of the mission command philosophy. That is, when commanders trust their squad leaders to make autonomous decisions in battle, the squad leader's willingness to disobey mission orders and make quick decisions on behalf of his commander appears to be the key to cognitive dominance.

Notes

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SGT Tyler Jackson is an Infantry squad leader with B Company, 2nd Battalion, 503rd Infantry Regiment, 173rd Airborne Brigade. He is also a Warrior-Leader graduate and a Black Hat instructor for the One Shepherd Institute of Leadership. SGT Tyler's past and ongoing collaboration with One Shepherd contributed significantly toward research and development of the Engagement Decision Matrix. He is a consummate scholar and as such he is uniquely situated to bridge the gap between academic researchers and the demands of the U.S. Army. SGT Tyler earned a bachelor's degree in philosophy.

Christopher E. Larsen, Ph.D., is owner and CEO of TacComp Media, a veteran U.S. Army Infantry squad leader, and a Warrior-Leader graduate as well as a Black Hat instructor of the One Shepherd Institute of Leadership. His research explores cognitive and pedagogical models of high-stake, time-stressed decision making. His publications include multiple titles for the Lightning Press' esteemed SMARTbook series that have been institutionalized by all four branches of the U.S. armed forces, the most prominent being *The Small Unit Tactics SMARTbook* (2013) and *The OPFOR SMARTbook: Red Team Army* (2014). Dr. Larsen earned a Ph.D. in learning technologies.

Nathan Lowrance, Ph.D., is an expert in human-computer interaction with a focus on research and development in usability design. He specializes in cognitive models of information literacy and decision making. His work focuses on opportunistic discovery patterns within specified environments. Dr. Lowrance's work for the University of Missouri included developing test methodologies. He authored "Inspired EHRs," a California HealthCare Foundation and SHARP-C funded meaningful use guide. He is also a Warrior-Leader graduate of the One Shepherd Institute of Leadership.

‘Big Red One’ Marks 100 Years of Leading the Way

J. PARKER ROBERTS

On 8 June, the sun will rise and set on Fort Riley, KS. On Cantigny, France. On Aachen, Germany. On Saigon, Vietnam. On Baghdad, Iraq. All places where the U.S. Army’s first division made a lasting impact in its 100 years of continuous service.

Set to celebrate its centennial this summer, the 1st Infantry Division was initially constituted as the First Expeditionary Division in May 1917 before being officially organized in New York City on 8 June 1917, under the command of BG William L. Siebert. Though the Army had used temporary divisions since the Civil War, the “Big Red One” was the first divisional unit created to fight in World War I.

By the end of 1917, nearly the entire division had shipped out and assembled in St. Nazaire, France. The following spring, the division fought and won the Battle of Cantigny, the first American victory in World War I.

As one eyewitness account makes clear, the German forces did not make the division’s job easy:

“We got shelled quite a little by (the Germans), one of my men got wounded. The first drive we all made came after this morning. The 28th Inf. made a drive at Cantigny. I was a first aid man. I dressed wounded and rescued wounded and dead. Lost both of my canteens of water by a French tank going over the hole I was in so had to go without water for two hrs. All I got was a little from the doughboys. (The Germans) sure shelled us and counterattacked. Fritz counterattacked a lot. Sent over lots of gas. Sure was an awful day. I spend a lot of my time digging in.”

— From the diary of **PFC Vernon L. Scobie**, Ambulance Company 2, entries of 28-29 May 1918 (Courtesy of the Colonel Robert R. McCormick Research Center)

It was the first of many victories the 1st Infantry Division would see in its 100 years of continual service to the nation.

“The 1st Infantry Division has a proud and honorable history which reflects the heart of the American Soldier,” said MG Joseph Martin, 78th commander of the 1st Infantry Division. “Having fought in five wars, the 1st Infantry Division is one of the most decorated divisions in the United States Army. It boasts 35 Medal of Honor recipients and more than 35 campaign participation credits.”

MG Martin took command of the Big Red One in October 2016 ahead of the division’s latest deployment, where the division headquarters assumed the role of Combined Joint Forces Land Component Command – Operation Inherent Resolve. During this deployment, the division is providing command and control of coalition troops

Photos courtesy of the 1st Infantry Division Public Affairs Office

The 1st Infantry Division was the first divisional unit created to fight in World War I.

training, advising, and assisting Iraqi Security Forces as they fight to take back the city of Mosul from ISIS control.

"The Big Red One was the nation's first division," said BG Patrick D. Frank, 1st Infantry Division acting senior commander at Fort Riley. "We honor the legacy of the brave, responsible, and on point Soldiers who have gone before us by maintaining the highest professional standards and training, building combat-ready forces to rapidly deploy and respond to threats abroad on behalf of the nation."

The 1st Infantry Division was one of the first two divisions deployed to Vietnam.

The 1st Infantry Division fought in Europe until the end of World War I in 1918 and led the American Army of Occupation across the Rhine and into Germany. The Big Red One was the last American combat unit to return home in 1919 and was one of only four divisions retained on active duty between 1919 and 1940. As a second world war began in 1939, the 1st Infantry Division was the first Army division to undergo amphibious training.

Once the attack on Pearl Harbor launched America into World War II, the 1st Infantry Division was the first division sent to Europe, landing in Great Britain in July 1942. In 1943, the division recorded the first American defeat of a German unit — the 10th Panzer Division — with the Battle of El Guettar in Tunisia.

After fighting successfully to liberate Sicily, the 1st Infantry Division was selected by Kansas native GEN Dwight D. Eisenhower for Operation Overlord, what would later be known as the Battle of Normandy. The Big Red One led Task Force O in assaulting Omaha Beach on 6 June 1944.

After surviving the initial beach landing, Soldiers still faced the task of pushing on: "There are two kinds of people who are staying on this beach: those who are dead and those who are going to die. Now let's get the hell out of here," said COL George A. Taylor, regimental commander of the 16th Infantry Regiment, motivating Soldiers to move inland during the assault on Omaha Beach.

Facing an entrenched and well-defended German force, the division nevertheless drove inland and joined the Allied advance in forcing the Germans to retreat. By September of that year, the division reached the German frontier.

After breaching the Siegfried Line, the 1st Infantry Division led the attack to seize Aachen, the first German city captured by the Allies. The Big Red One fought hard through Germany for the remainder of the war in Europe, eventually reaching Czechoslovakia and liberating the Nazi labor camp in Falkenau.

Following World War II and the U.S. Army's demobilization, the Big Red One was the only American combat force in occupied Germany until 1950, helping to rebuild the country and holding the line in anticipation of possible hostilities from the Soviet Union. The division returned to the U.S. in 1955 as part of Operation Gyroscope and made Fort Riley — its current headquarters — home.

A decade later, the 1st Infantry Division was one of the first two divisions called to serve in the Vietnam War. Soldiers of the division would spend five years fighting both the Viet Cong and the North Vietnamese Army, facing the enemy along Highway 13 and the Iron Triangle.

Throughout the deployment, Big Red One Soldiers maintained a high degree of professionalism: "There is nothing amateurish about this outfit, about the Big Red One, about our division. Nothing will be tolerated that is amateurish. We will be professional in every sense of the word and in all aspects of our business," wrote MG Orwin Talbott in "Commander's Notes #1," which was issued on 21 September 1968.

The division returned to Fort Riley in 1970, and while its Soldiers had taken the fight to the enemy, it also saw significant casualties, including MG Keith L. Ware, 1st Infantry Division commanding general. MG Ware and his aides were killed in action on 13 September 1968 when their helicopter was shot down by heavy anti-aircraft fire near Loc Ninh.

The 1st Infantry Division stayed at Fort Riley as a mechanized division until 1991. During those years, the Big Red One and the rest of the U.S. Army transformed into an all-volunteer fighting force.

The all-volunteer Big Red One again answered the nation's call during Operation Desert Storm. On 24 February 1991, under the command of MG Thomas Rhame, the division spearheaded the "breaching of the berm," cutting deep into Iraqi defenses and allowing coalition forces to pour into the country, which had recently invaded, occupied, and annexed Kuwait.

As with all battles, the Big Red One came prepared for the fight:

> *"When Saddam Hussein and his forces invaded Kuwait, it kicked us off in full gear to really start learning more about who Saddam was and what the Iraqi army was, including the Republican Guard forces... We spent an exorbitant amount of time learning who he was, how he fought, what*

On 24 February 1991, the 1st Infantry Division spearheaded the "breaching of the berm," cutting deep into Iraqi defenses and allowing coalition forces to pour into the country.

equipment he had. In the Army, you are always training for the next (conflict) or for any conflict that you may be part of."

— CW3 Phyllis Fitzgerald
Intelligence analyst officer for the 1st Infantry Division
during Operation Desert Storm

Following the berm breach, the division and other coalition forces conducted 100 hours of ground combat, after which a ceasefire was called. During those 100 hours, the division captured hundreds of enemy tanks and thousands of enemy prisoners.

By the end of the year, the entire division returned to Fort Riley. They wouldn't stay long, however, as the division headquarters and two brigades moved to Wurzburg, Germany, which would be its home until 2006.

The terror attacks of 11 September 2001 were a turning point not only for the nation, but also for the Army. The 1st Infantry Division entered the war on terrorism in 2003, first forming Armed Forces-Turkey to prepare a route into Iraq through Turkey. Though Turkey denied access to U.S. forces, the planning diverted Iraqi attention as the 4th Infantry Division entered through Kuwait.

Later in 2003, Task Force 1-63 Armor was airlifted into northern Iraq, the largest airlift of heavy U.S. Army forces ever. The task force secured oilfields and assisted the local Kurdish forces before returning to Germany in 2004. Also in 2003, the 1st Brigade Combat Team, 1st Infantry Division deployed to Iraq and conducted combat operations in the Sunni Triangle, supported Iraqi National Guard forces, and assisted with civil aid programs.

The division headquarters, three brigades, and several support units deployed to Iraq in 2004 as Task Force Danger, conducting combat operations and helping to rebuild local infrastructure, which paved the way for the first free elections in the country's history in January 2005.

The Big Red One continued to deploy units to support Operation Iraqi Freedom as they moved back to Fort Riley in 2006. Soldiers conducted counterinsurgency operations as they faced a much different adversary than in past conflicts.

"My concern was the mission and my men, that was it. … Am I accomplishing the mission? Am I taking care of my men? That's all I really had to worry about," said 1LT Nathan Rimpf, a platoon leader in Company D, 2nd Battalion, 16th Infantry Regiment, 4th Infantry Brigade Combat Team, 1st Infantry Division. Rimpf, a double amputee, was leading his Soldiers in eastern Afghanistan when they encountered an improvised explosive device in July 2012.

In 2014, the 1st Infantry Division was the first to return to Iraq to aid local security forces in the fight against ISIS as part of Operation Inherent Resolve, which continues today.

Reflecting on 100 years of continual service to the nation, America's oldest division will celebrate its history and future with several events scheduled for this summer. The anniversary itself will be celebrated 8 June with a division run, Victory with Honors ceremony, and a dining-in at Fort Riley.

More celebrations are scheduled for Victory Week, 16-25 August at Fort Riley. This annual celebration is an opportunity to honor the division's past, encourage esprit de corps through unit athletic competitions and welcome community partners to post. For more information about 1st Infantry Division's celebration events, go to http://www.riley.army.mil/100thAnniversary/.

J. Parker Roberts is the senior contents editor for the 1st Infantry Division Public Affairs Office.

Photo by SSG Bronco Suzuki

A Soldier with the 1st Battalion, 28th Infantry Regiment, 4th Brigade Combat Team, 1st Infantry Division, pulls security during a patrol in the Furat area of Baghdad on 8 May 2007.

An Old Infantryman's Story

TOM ROZMAN

It was late Sunday afternoon in Navy quarters at the Hingham Naval Ammunition Depot's housing area in Hingham, MA. A 12-year-old boy was watching the popular TV series *Victory at Sea*. The footage was showing Infantrymen — heavily loaded with their weapons, ammunition, and personal gear — working their way over the assault troop ship's rail, down nets along the side of the ship into smaller LCVPs (Landing Craft, Vehicle, Personnel), which were bobbing in the sea some 40 feet below and banging into the side of the ship in the swells. The load the Infantrymen were carrying seemed too much for the obviously hazardous climb down the wet netting.

The boy's family had enjoyed its normal Sunday routine. After attending mass at St. Paul's Catholic Church in town and visiting the general store across from the church, the family had taken a ride along the south shore coast to Scituate. As evening came on back at the family's quarters, the boy's father, an active Army Infantry major at the time, was catching up on some household work missed because of being on duty with the National Guard unit he was advising the day before. The family's only black and white TV was located in the living room, and the boy's father was finishing a task in the adjacent dining area in the small duplex quarters.

As the boy watched the Infantrymen on the screen, the expressions on the young Soldiers' faces made an impression — the faces seemed pensive, concentrating on what they were doing but somehow in a way preoccupied. No face was smiling.

From the few comments the boy had heard from other family members about World War II and his father's experience in the war, he knew that his father had made several amphibious combat assaults in the South Pacific Theater. His father did not talk about his experiences.

U.S. troops go over the side of a Coast Guard-manned combat transport to enter the landing barges at Empress Augusta Bay, Bougainville, as the invasion gets under way in November 1943.

Photo courtesy of National Archives

It occurred to the boy that the Soldiers' climb down the nets wasn't like a ride at the local amusement park's roller coaster — an exciting thrill with a sense that after the ride life would go back to normal. Even at 12, the thought occurred that those Soldiers were carrying huge loads down a wet slippery net and if one of them lost his grip on the netting, the fall would be swift and the Soldier would either crash into the floor of the LCVP, hit the top of its gunnel with likely injury, or worse, fall into the water. In the latter case, the weight of the equipment would pull the Soldier down, most likely drowning him. As badly, the LCVP in a swell would create an opening for the Soldier to drop into and then slide back toward the ship, crushing the Soldier against the side of the ship.

As the boats completed their loading, they moved away from the side of the attack transport and began to move through the swells, the packed Infantrymen lurching in the bays. The boats eventually arrived at a rendezvous point with the other boats where they then circled until receiving a signal to form into a wave and start toward the beach. As the boats achieved speed, came on line, and broke for the beach, the Infantrymen were buffeted against each other as the boats

made way through the swells. Some of the coverage showed boats being damaged and Soldiers being injured. Then the ramp went down, and some of the heavily loaded men went under water while others were in varying depths of surf. Yet, they rushed forward, forcing their way forward to the beach. Adding to the chaos, there were splashes of enemy fire, some striking the boats and Soldiers. This was real combat footage and the events were real.

Somehow even to a 12 year old, the footage went a little beyond exciting and a sense of human "mortality" crept into consciousness. But the singular impression was that the Soldiers went forward in each sequence of the action — even at his age the boy understood something about human fear, like getting on the high-dive platform at the pool. It then occurred to the boy that his father had experienced what he was seeing in the film clips and he thought to ask him what it was like.

At the time, the father was already an old Soldier. He had 18 years of service, having enlisted in the Connecticut National Guard in the fall of 1939 after a stint in the Civilian Conservation Corps. He was mobilized with his unit for active federal service in February 1941 and served in a combat rifle company in combat as a staff sergeant, technical sergeant, and first sergeant. Most of his career as a technical sergeant was spent serving as a rifle platoon leader due to a shortage of second lieutenants.

Ultimately on Luzon, he was commissioned and continued serving for several months in combat operations as a rifle platoon leader before taking some leave and then rejoining his regiment and division for the coming invasion of the Japanese home islands. The Japanese government capitulated before what would have been his scheduled sixth combat amphibious assault. He subsequently continued his career in the Army until he retired as a lieutenant colonel following an assignment in a command billet in U.S. Army Europe (USAREUR) in 1965.

At the time he shared his thoughts about amphibious combat assaults, he had just returned from a year in Vietnam. Over his 26 years of service, he served 16 of those years assigned to battalions, a battle group, and a headquarters of the 30th, 39th and 169th Infantry Regiments, units assigned to the 3rd, 9th, and 43rd Infantry Divisions. He commanded four infantry line and battalion headquarters companies, two which deployed to Europe, as well as served on battalion, battle group, and regimental staff. He spent almost another year commanding a fifth company — Service Battery, 67th Armored Artillery Battalion, Division Artillery, 3rd Armored Division. Upon promotion to major, he served as the S4 of a training regiment. There would be other assignments to the U.S. Army Armored Center; Military Assistance Advisory Group Vietnam; 1st Army at Fort Devens, MA, as an advisor to the Massachusetts Army National Guard; and finally USAREUR, his second tour of duty in Germany. He served another eight years from that Sunday night to include another tour of duty in Germany —12 years of overseas duty in Germany, the South Pacific, and Vietnam.

Other family members had served in the Infantry as well. One great uncle on the boy's mother's side — a corporal in Company K, 23rd Infantry Regiment, 2nd Division — had been killed in action at Belleau Wood on 6 June 1918. Another uncle had served as an infantry sergeant in the 262nd Infantry, 66th Infantry Division. One of his father's brothers, all six of whom served in the Army (as did the boy's mother's four brothers), was a combat rifleman in the 313th Infantry, 79th Infantry Division. A younger brother would serve in the 169th Infantry in the late 1940s, and another uncle (a WWII Navy veteran) served as a lieutenant in the 110th Infantry Regiment, 28th Infantry Division during the same period.

Two other uncles had participated in assault landings during the war. Another had served as an artilleryman with the 1st Infantry Division and made all of its assault landings during WWII. Another uncle served in a tank battalion with the 77th Infantry Division, participating in the landings in the Pacific made by that unit. But none of these family members had shared very much about their experiences. If anything came out about the war experiences at family gatherings, which hardly ever happened, it tended to be positive or humorous — and what did a child pay attention to anyway? Certainly not what the adults were talking about.

But on this Sunday, the images and the faces of the young Soldiers in the film clips appearing on TV spoke a language even a 12-year-old boy could get a sense of — enough to ask his father what it was like. His father had been in and out of the room while finishing up what he was doing and had caught glimpses of the footage and some of the commentary. So the boy's question when he asked it did not come completely out of the blue. The father stopped what he was doing; there was a pause and he didn't seem to want to answer. He seemed to be going back in time... remembering, but trying to decide what could be shared with a 12 year old. How should it be shared?

Finally he spoke. He said, "You were so scared you didn't think your knees would work; they felt like water as you started to climb down the netting — but you did what you were trained to do. Anyone who says he's not scared is not telling the truth. In the boat, there was so much noise you couldn't talk, barely think, even shout and be heard, and you felt like you were going to throw up — but you did what you trained to do. When the ramp went down, the training took over. You ran forward with your weapon ready into the water and onto the beach — doing what you trained to do. Your friends went down, and the enemy fire came at you. You were mad about what was happening, then anger took over — it took hold and you moved ahead, assaulting positions, doing what had to be done until the initial objectives were taken. You secured your position and when the action finally stopped, your body would shake. You would cry, you couldn't control it... then the training would take hold again and you would do what you trained to do..." The words stopped and he went back to his work.

The words did nothing to promote war or present it as anything romantic or glorious — just the unvarnished words of a combat Infantryman about what really happens in an amphibious assault. To the boy, his comments seemed very real given the footage he just viewed on the TV. Short and

Under heavy machine-gun fire, Soldiers from the 1st Infantry Division exit a Coast Guard landing boat and head for shore during one of the first waves of assault landings on Omaha Beach on 6 June 1944.

simple, the comments were not embellished and certainly not glorious. If there was any glory in them, it was that men faced down almost crippling personal fear, each in his own way, but still went forward — some to death and some who got the job done. But how did they do this?

When in uniform, the Infantryman that made the comment wore an arrowhead with four bronze stars on his Asiatic Pacific Theater Ribbon, a Combat Infantryman's Badge, a Bronze Star Medal, a Presidential and Philippine Presidential Unit Citation Ribbon — and a purple ribbon with white edges and three oak leaf clusters on it. Concerning the latter, some physical scars were visible like the "v" shaped scar in the center of his forehead, the scars around the end of his nose where the Army surgeon stitched it back on, the scars on the fingers of his right hand, and the scar at the base of his spine. Some, upon reflection in later years, were an indication of why the old Infantryman paused before he answered the question that Sunday so long ago.

The old Infantryman was a straight shooter. He didn't glorify any of his experience. But there was a quiet pride of accomplishment one could sense. There was a feeling that the Soldier felt a pride toward those who had faced the storm with him, a sense that they had weathered the storm over their own humanity and got the job done and come home. There was also a very personal unspoken sense of loss and remembrance for comrades who did not come home — a fellow sergeant who pulled him to cover after mortar shrapnel tore into his back and drove him to the ground during an assault on a hill. The sergeant who pulled him to safety was leaning over him when he had the back of his head taken off by fragments, killing him instantly.

The old Infantryman had other stories in later years, but he never told any without prompting and often kept the story short and to the point. In retrospect, every word proved relevant and true as later experience would bear out.

The 12-year-old boy and his younger brother would eventually serve in the infantry in combat battalions of the 6th, 7th, 11th, 12th, 23rd, 38th, 46th, and 58th Infantry Regiments and the 12th Cavalry Regiment — four of these units were deployed overseas. His grandson would also serve in the infantry.

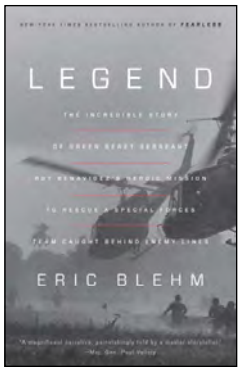
The boy never forgot the old Infantryman's story. If there is glory in combat, it is overcoming fear to get the mission done at least cost to the Soldiers you are responsible for — and training gets you over the fear and into the mission. It gets the mission accomplished. Hard training saves the lives of your Soldiers. It gets the job done, and it gets your comrades home.

Tom Rozman graduated from the U.S. Military Academy, the University of Massachusetts Graduate Business School, and the U.S. Army Command and General Staff College. He served in the U. S. Army for 27 years with a last assignment as the director of the Collective Training Directorate, Office of the Deputy Chief of Staff for Training, U.S. Army Training and Doctrine Command. He then continued his career as a member of the Virginia Departments of Labor and Industry retiring as a director in the latter. He served for three years on the Department of the Army Armored Family of Vehicles Task Force. He exercised instructor privileges at the University of Massachusetts, Western New England College, and Westfield State College for over three years as an assistant professor. He has published 45 articles in U.S. and foreign military journals and more than 30 manuals, papers, policy documents, and reviews.

Book Reviews

Legend: The Incredible Story of Green Beret Sergeant Roy Benavidez's Heroic Mission to Rescue a Special Forces Team Caught Behind Enemy Lines

By Eric Blehm
NY: Broadway Books, 2015, 288 pages



Reviewed by LTC (Retired) Rick Baillergeon

In today's society, we seem to be very quick to bestow the title "legend" on a person. In many cases, the term is used arbitrarily with little or no understanding of what truly constitutes a legendary figure in a profession. However, when the members of a profession proclaim in near unanimous agreement that a person is a legend, then the moniker is rightly merited. This is unquestionably the case with Roy Benavidez, a Soldier who is revered as a legend in the Special Forces community. In his superb volume, *Legend,* author Eric Blehm highlights Benavidez's life and in particular his courageous actions during the Vietnam War.

For Blehm, his passion for crafting books tied to the Special Forces community is well established. His past two volumes were *Fearless: The Undaunted Courage and Ultimate Sacrifice of Navy Seal Team Six Operator Adam Brown* and *The Only Thing Worth Dying For: How Eleven Green Berets Fought for a New Afghanistan*. Each of these was well-received by critics and the public alike. There is no question that *Legend* will garner the same praise.

Within *Legend*, Blehm has deftly organized this volume into basically four parts. He begins with a concise retrospective of Benavidez's youth and early years in the military. He follows with discussion on the use of Special Forces in Vietnam and addresses the state of the war at the time. These sections perfectly set the conditions to focus on the emphasis of the book — the role of Benavidez in the rescue of his fellow Soldiers in early May 1968. He concludes the volume with the process of how Benavidez was eventually awarded the Medal of Honor and a summary of his life following his heroic actions.

For those who are not aware of Benavidez's actions, perhaps the best way to summarize them is to read part of his Medal of Honor citation. It states, "Only then, in extremely serious condition from numerous wounds and loss of blood, did he allow himself to be pulled into the extraction aircraft. Sergeant Benavidez' gallant choice to join voluntarily his comrades who were in critical straits, to expose himself constantly to withering enemy fire, and his refusal to be stopped despite numerous severe wounds, saved the lives of at least eight men."

Readers will find that Blehm superbly captures the essence of the above words for readers. This is achieved by two attributes which the author has displayed throughout his previous bodies of work. First, Blehm conducts exhaustive research in support of his books. This research is not only rich in quantity but in quality as well. The sources he utilizes within *Legend* include recently declassified military records, interviews with Benavidez' family members, and discussions with surviving Soldiers who fought with Benavidez on 2 May 1968.

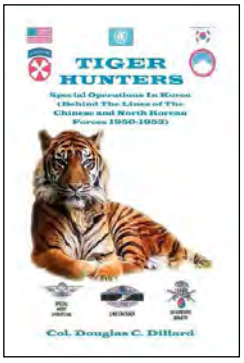
The second attribute is the author's ability to take this in-depth research and transform it into copy that will grip a reader. For those who have read Blehm's past books, you know he possesses an extremely engaging writing style. This is prominently displayed within the volume. In particular, this is highlighted when he focuses on the events of 2 May.

Blehm dedicates one of book's concluding chapters to describe how Benavidez was eventually awarded the Medal of Honor. He originally received a Distinguished Service Cross for his actions on 2 May. Blehm details the series of events which occurred (and the people who were involved) that led to upgrading the award to the Medal of Honor.

Benavidez passed away on 29 November 1998 of complications from diabetes. He continues to be remembered as a National Guard Armory, a West Point Conference Room, a Navy troop and cargo ship, and numerous other facilities are named after him. It is hoped that this superb volume will enable many others to learn and understand the incredible service he gave to his country.

Tiger Hunters: Special Operations in Korea (Behind the Lines of the Chinese and North Korean Forces 1950-1953)

By COL Douglas C. Dillard
Bloomington, IN: Xlibris Corporation, 2010, 368 pages



Reviewed by Maj Timothy Heck, U.S. Marine Corps Reserve

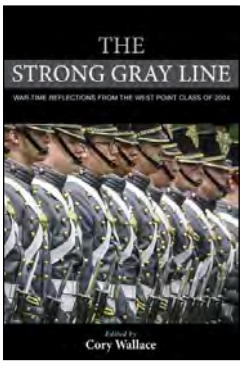
COL Douglas Dillard's *Tiger Hunters* is part memoir and part historical scholarship about partisan and special operations during the Korean War. Based extensively on his experiences in Korea as a leader in the 8240th Army Unit, which handled unconventional warfare and partisan operations, Dillard's work helps fill the gaps in official histories and other special operations-focused histories of the war. *Tiger Hunters* provides an insight into the difficulties of fighting an unconventional war with limited resources, minimal training,

and in an environment that did not fully embrace either special operations or joint warfare.

The struggles and problems Dillard and his compatriots experienced serve as a reminder of the applicability and timelessness of the Special Operations Forces Truths developed long after the end of the Korean War. Dillard's history consistently reminds the reader that competent special operations forces cannot be created after emergencies occur. South Korean partisans, many of whom were refugees, were given minimal training, unclear mission orders, and were then dropped behind North Korean lines in an attempt to obtain intelligence and conduct partisan operations as early as August 1950. These partisans, understandably, suffered large losses and led to the reorganization of special operations in Korea and its slow professionalization. Despite the reorganization and expansion of training cadres, assisted by the disbanding of the Ranger companies at the division level in 1951, the partisan and line-crossing operations Dillard describes were still fraught with dangers.

Dillard divides his work into two sections. The first, which deals with airborne insertion of partisans, forms the bulk of the book. This section is largely based on Dillard's recollections of his time in the 8240th's AVIARY program, buttressed by historical research. The second section concerns line-crossing and tactical intelligence-gathering operations in support of division-level intelligence objectives. At the end of the second section, Dillard presents abbreviated recollections of the Korean and Chinese agents conducting both partisan and line-crossing operations in Korea.

Tiger Hunters helps fill gaps in the special operations picture of the Korean Conflict. As such, it has a place on special operations reading lists or in detailed studies of the war in Korea. Readers familiar with special operations and partisan efforts during the Vietnam War, such as those presented by Kenneth Conboy and Dale Andrade in *Spies and Commandos: How America Lost the Secret War in North Vietnam*, will find striking similarities to the problems that plagued partisan operations in Korea and Vietnam. In both, agents were doubled, teams were dropped to waiting enemy forces, and overall the operations saw limited success.



The Strong Gray Line: War-Time Experiences from the West Point Class of 2004

Edited by Cory Wallace

Lanham, MD: Rowman & Littlefield, 2015, 268 pages

Reviewed by LTC (Retired) Rick Baillergeon

Most books are crafted with the goal of achieving an objective or multiple objectives. Some seek to entertain their readers while others may be written to educate readers or add to their body of knowledge. Still others seek to pay to tribute to an event, an individual, or a group. Of course, seeking an objective and accomplishing an objective are clearly two different things. One recent volume which unquestionably achieves multiple objectives is *The Strong Gray Line*. It is a book which educates, ensures the service of our Soldiers and the sacrifices of the family are remembered, and pays tribute to the Soldiers who made the ultimate sacrifice.

The focus of *The Strong Gray Line* is the West Point Class of 2004 — more specifically, the roles and experiences of the class during the wars in Iraq and Afghanistan. To address these roles and experiences, readers will find a book unique in organization, content, and its contributors. These factors combine to make this a volume which will have a dramatic impact on all who read it.

As highlighted earlier, this is a book which superbly honors Soldiers who died in service of their country. During the period of 2005-2012, 14 members of the class of 2004 were killed. Thirteen of these Soldiers died in combat and one in a training accident. To honor their memory, the first section of the book, entitled "The Fallen," contains an essay written on each Soldier. Fittingly, each essay is crafted by a fellow member of the class. Some of the essays are written in a solemn tone while others are a bit more subdued. They are fitting tributes to the Soldiers and undoubtedly humanize them to the public.

The majority of the remainder of the book keys on the service of these Soldiers during the wars in Iraq and Afghanistan. It additionally highlights the significance of the family members left behind. In addressing this, the book utilizes 13 personal essays written again by members of the class of 2004 in a section entitled, "The War." These chapters truly touch on the myriad of emotions that are a part of war. In combination, they highlight the human dimension of the wars in Iraq and Afghanistan as well as any book I've read.

In between these two major portions of the book, there are two small sections which fit perfectly in the scope of the volume. The first is placed between the two chief sections and is appropriately called "Interlude." In developing this section, the editor wanted to provide readers with a bridge between the essays in tribute of the fallen Soldiers and class members discussing their Iraq and Afghanistan experiences. To achieve this, he placed two pieces (one a small story and the other a poem) which I believe clearly make this an effective transition for the reader.

The concluding chapter utilizes the reflections of a recent West Point graduate taken from his senior year. In it, he highlights the bond he passionately feels he shares with past graduates of the U.S. Military Academy. It is a chapter which not only interconnects the past and present as it pertains to West Point graduates but makes the connection between all who have served. It is a powerful conclusion.

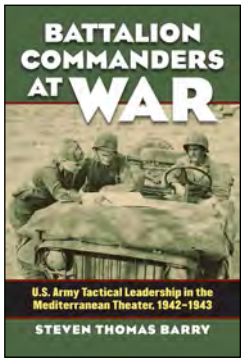
After reading this review, you may conclude that *The Strong Gray Line* will only appeal or benefit those with a West Point connection. That could not be farther from the truth. It is a book which pays tribute to all who have served or currently serve their country. It provides the public perspectives and shares

emotions that seem to be a bit more infrequent today in society.

In the book's introduction, a passage will surely stand out for readers. It states, "While many of us have left active duty for other pursuits, others continue to wear a uniform. We all carry a burden of living a life worthy of the sacrifices of our classmates and so many others. To those who bore the ultimate cost and who now grip our hands from the shadows, we dedicate this book." *The Strong Gray Line* unquestionably provides a dedication worthy of all who bore the ultimate cost.

Battalion Commanders at War: U.S. Army Tactical Leadership in the Mediterranean Theater, 1942-1943

By Steven Thomas Barry
Lawrence, KS: University of Kansas Press, 2013,
272 pages



Reviewed by Maj Timothy Heck, U.S. Marine Corps Reserve

Since the publication of Trevor Dupuy's *Numbers, Predictions, and War* in 1979, the standard perception of American combat efficiency was that it was significantly less than that of their German opponents, especially at the beginning of World War II. In *Battalion Commanders at War*, Steven Barry attempts to challenge that perception, using North Africa and Sicily as his proving grounds. The book, which won an Army Historical Foundation Distinguished Book Award in 2014, argues that in spite "the deficiencies in equipment, organization, and mobilization and the inadequate operational leadership," American battalion commanders, particularly those educated at West Point in the 1930s, were the glue that held the Army together and spearheaded success in the Mediterranean.

Barry's book is divided into an introduction, seven chapters, a conclusion, and a historiographical essay. He seeks to answer the question of "how and why did the regular army battalion leadership exercise combat command without any prior combat experience?" Crucial to this combat command, Barry argues, was the shaping of these field grade officers at both West Point and the pre-war Army. The officer pool focused in his study are the field grade Armor and Infantry officers, though the majority of the case studies presented focus on the armored experience.

His first chapter focuses on the evolution of West Point from the 1920s to the mid-1930s as the source for America's professional Soldiers. West Point, he argues, professionalized as an educational institution and as a military one, as a result of leadership and vision set forth by GEN Douglas MacArthur and his successors. Using statistical analysis, Barry concludes that the value of military education, especially by the Department of Tactics and Civil and Military Engineering, was essential in preparing them for "the changes in modern warfare."

Following commissioning, the lieutenants went out in to the Army worldwide to lead platoons or serve on staffs. Unlike in today's Army, the lieutenants of the 1930s went forward without the benefit of a branch school. Instead, they completed one or two tours before returning for what would today be called the Captains Career Course at the appropriate branch school. Those tours included service overseas with the Army in Panama or the Philippines, participation in large-scale maneuvers and exercises, and with the Civilian Conservation Corps (CCC). Additionally, young officers were mentored by their seniors to varying degrees of success. Interestingly, Barry credits "the dogged mentorship of senior officers" with shaping the "quality judgment" of the future Mediterranean Theater of Operations battalion commanders though many of these same senior officers are often portrayed as unprepared for the demands of modern warfare after 1941.

Chapters three through six, which cover combat in North Africa, are the book's strongest and best laid out. Here, Barry follows battalion commanders through a variety of engagements, both offensive and defensive against French, Italian, and German forces. Berry writes about the successful ones (like Louis Hightower and Hamilton Howze) and the unsuccessful ones with an eye to what made the difference.

Unsurprisingly given his own background as an Armor officer, the sections on armored units are particularly well written. His analysis in these chapters is based on after action reports, oral history interviews, memoirs, and several official postwar analyses of combat. Barry credits the battalion commanders with "consistently displaying a penchant for incorporating lessons learned, leading from the front, and displaying a calmness under fire." Furthermore, these commanders served as mentors and leaders to the company-grade officers coming from the civilian world via Officer Candidates School.

Barry's thesis is expansive if not always successfully executed or supported. Some of the commanders he cites, men like Howze and Hightower, are presented as exceptional, making their inclusion or presentation as being indicative of their peer grouping problematic. His inclusion of elite units like the Rangers or airborne forces dilutes his argument's strength. Furthermore, the inclusion of the Sicily campaign, for example, is cursory in comparison to combat in North Africa, and those pages could have been better spent looking at other actions, commanders, and units in Tunisia.

Battalion Commanders at War is a bold attempt at repositioning the American tactical commander in historiography. He has written a "history from the middle" about the men who "provided the organizational solution to achieve tactical victories in the United States' first campaigns." It serves as a useful counterpoint to works like Dupuy's or S.L.A. Marshall's that have dominated the narrative of the American Army at the outset of World War II. Furthermore, the book has a place on the shelves of battalion commanders, future battalion commanders, and the leadership and staffs of professional military institutions. Barry reminds his readers that the preparation before combat — be it in a classroom or in the field — reaps rewards, saves lives, and helps produce victory.

Headquarters, Department of the Army
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