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The 3rd Brigade Combat Team (BCT), 82nd Airborne Division (Panther Brigade) completed a nine-month deployment (December 2014 through September 2015) to Iraq as part of Operation Inherent Resolve. Throughout the deployment, paratroopers and leaders at all levels — from the youngest private to the BCT commander — were challenged every day in some capacity and learned many valuable lessons.



42 A COLD, SOGGY, BOGGY SLOG: GROUND FORCES IN HIGHER LATITUDE COMBAT

Lester W. Grau

There are apparently no spots on the planet that are so remote, so inhospitable, and so devoid of transport and infrastructure that man will not fight over the possession of them. Mountains, jungles, and deserts have all seen their share of combat. People have even fought in the Arctic and in proximity to the Antarctic — and not just the indigenous populations. The land areas approaching and within the Arctic and Antarctic Circles provide unique challenges to military operations.



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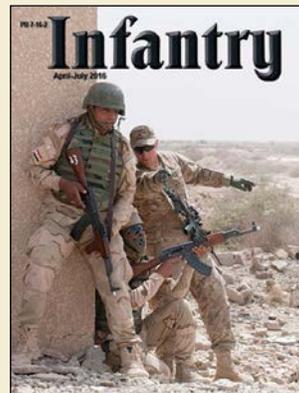
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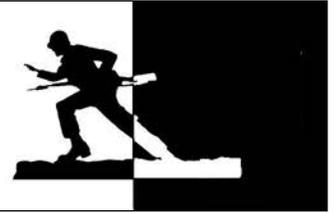
An Infantryman with the 2nd Battalion, 505th Parachute Infantry Regiment, 3rd Brigade Combat Team, 82nd Airborne Division, instructs Iraqi army soldiers of the 75th Brigade, 16th Division, during a breach assault and building clearance course at Besmaya Range Complex, Iraq, on 18 April 2015. Soldiers of the 2-505th PIR trained Iraqi soldiers on a number of combat skills as part of Combined Joint Task Force – Operation Inherent Resolve's building partner capacity mission. (Photo by SGT Deja Borden)

BACK COVER:

Students endure the first day of Ranger School during RAP (Ranger Assessment Phase) week at Camp Darby, Fort Benning, Ga., on 25 July 2016. (Photo by: Patrick A. Albright)



Infantry News



OMEGA-3 STUDY AIMS TO GIVE SOLDIERS A COGNITIVE ADVANTAGE

DESIREE DILLEHAY

Second lieutenants entering the Infantry Basic Officer Leaders Course (IBOLC) at Fort Benning, Ga., can now participate in a study that will determine if omega-3 supplementation improves cognitive processes in high-performing warfighters.

The Ranger Resilience and Improved Performance on Phospholipid Bound Omega-3s study, conducted by the Medical University of South Carolina (MUSC), is a voluntary, double-blind placebo trial that will last until spring of 2018, said Bernadette Marriott, Ph.D., professor and director of the Nutrition Section, Division of Gastroenterology and Hepatology at MUSC.

"We're assessing cognitive processes. Specifically, we are studying concepts such as decision making and attention and impulsivity, and we're doing this with computer-based cognitive tests," said Marriott. "We're hoping to learn if we can improve cognitive performances under stress, because these young people, who are going through [IBOLC] and Ranger [school], are clearly under stress during specific times in their programs. We're testing them during those times."

The study's protocol specifically targets the population of young Soldiers as top performing, tactical athletes, according to CPT Jeffrey Wismann, Platoon Leader Academy officer in charge and commander of C Company, 2nd Battalion, 11th Infantry Regiment.

"What is unique in this study is we are testing this on what we consider some of our highest tier performers by selecting Infantry officers as the test group. And we still want to see if we see a relative increase in their performance, specifically their cognitive performance, as a result of supplementation."



Maneuver Center of Excellence photo

Second lieutenants assigned to the 199th Infantry Brigade's Infantry Basic Officer Leaders Course exit a Stryker during a field training exercise at Fort Benning.

According to Marriott, participants will first be briefed and have the opportunity to ask questions before signing up and conducting their baseline testing.

Once they are in the study, they will be randomized into the placebo and experimental groups and will receive their first eight-week supply of capsules. At eight weeks, they'll check in with the MUSC team for their assessments and receive their next eight-week supply. Participants will also be assessed before and after Ranger School.

MUSC worked with the course's leadership to determine recruitment strategies, such as providing a free six-month supply of the omega-3 supplements to participants when they finish the study, added Marriott.

"They need to make assessments related around specific physical events embedded in our course, and we helped [MUSC] identify what those key and critical times are so they can get their best research results," said Wismann.

The goal is to invest in Soldiers themselves the same kind of capability overmatch on the battlefield as would be achieved with a weapon system with a greater range or greater explosive power, Wismann said.

"It's extremely important for all of our combat arms leaders to be able to exercise cognitive dominance, because it is no longer just a matter of getting to the front lines, of getting to the fight. They now have to be able to make potentially, not only life-altering, but strategic decisions at the lowest levels at the front lines while physically exhausted," he said.

(Desiree Dillehay works for the Fort Benning Public Affairs Office.)

USAHEC LOOKING FOR NCOs TO GATHER SOLDIER STORIES

JONATHAN (JAY) KOESTER

Army history is storied and vast. But that vast history really comes down to one thing: Soldiers telling their stories.

The U.S. Army Heritage and Education Center (USAHEC) in Carlisle, Pa., is working to collect and preserve as many of those Soldier stories as they can, but they need help from NCOs. Though the center has more than enough veterans ready and willing to tell their tales, there aren't enough volunteer Veteran Ambassadors to sit down and record those tales.

The center's motto is "Telling the Army Story ... One Soldier at a Time," and the center has been gathering Soldier stories going all the way back to the Spanish-American War in 1898, said Karl Warner, the program and education coordinator at the center. But up until 2014, the center gathered those stories solely through surveys that they would hand out to veterans, asking them to fill them out. The surveys ran 20-30 pages.

"In our World War I section of these surveys, we have an entire face of our archival stacks full of boxes that are full of these surveys, tens of thousands of them," Warner said. "You go to World War II, and we have just as many, maybe even a little more. You get to Korea, and we only have one section of a face, so maybe only a few thousand from Korean War veterans. Then you go up to Vietnam War, and we've got only a few boxes. You get to Desert Storm and current operations, Global War on Terrorism, etc., you have even fewer than we have for Vietnam. So, we had to figure that out. What's the difference?"

Read more about the program at <http://ncojournal.dodlive.mil/2016/07/06/army-heritage-center-looking-for-ncos-to-gather-soldier-stories/>.

(Jonathan [Jay] Koester writes for the NCO Journal.)



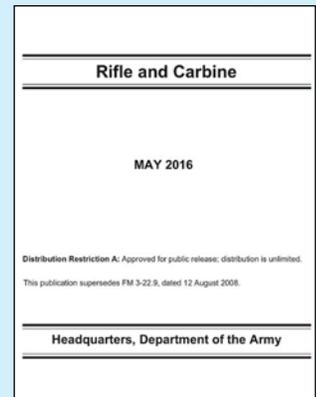
Photo by Jonathan (Jay) Koester

A Veteran Ambassador for USAHEC does an on-camera interview with former SMA Jack L. Tilley in May in El Paso, Texas.

MCoE PUBLISHES TC 3-22.9

DOCTRINE AND COLLECTIVE TRAINING DIVISION

The Maneuver Center of Excellence (MCoE) and the Doctrine and Collective Training Division announce the recent publication of Training Circular (TC) 3-22.9, *Rifle and Carbine*. This new TC provides Soldiers with the critical information for their rifle or carbine and how it functions, its capabilities, the capabilities of the optics and ammunition, and the application of the functional elements of the shot process.



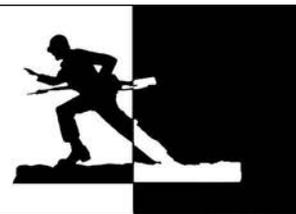
The TC, which was published on 13 May 2016, replaces Field Manual 3-22.9, published in August 2008. This manual is specifically tailored to the individual Soldier's use of the M4- or M16-series weapon. It provides specific information about the weapon, aiming devices, attachments, followed by sequential chapters on the tactical employment of the weapon system.

"This manual applies to all Soldiers, regardless of experience, and is a pocket-sized reference designed specifically for the Soldier's use on the range during training, and as a reference while deployed," said Steve Krivitsky, Weapons and Gunnery branch chief.

MCoE Doctrine Chief COL Marty Barr agreed with Krivitsky.

"The packaging and content of this publication drive our intent for it to accompany Soldiers during training as a reference and not stay in the arms room as an accountable item," he said.

TC 3-22.9 is available for download from the Central Army Registry at: <https://rdl.train.army.mil/catalog-ws/view/100.ATSC/492701D5-25E9-40A7-9498-74C22831F268-1463059585416/TCx3-22.9.pdf>.



MISSION COMMAND IN OPERATION ATLANTIC RESOLVE: LEADERSHIP LAB

CPT JONATHAN CHALLGREN

“No matter how clearly one thinks, it is impossible to anticipate precisely the character of future conflict. The key is to not be so far off the mark that it becomes impossible to adjust once that character is revealed.”

— Sir Michael Howard¹

While the science of armed conflict may change over time, the art of leadership is a constant that enables U.S. forces to win in complex operating environments (OEs). In order to develop the capacity to win the future fight, units below the brigade level need to seize every opportunity to develop leadership and unit competence. Training for future conflict is a challenging task that emphasizes the creation of lethal teams and competent leaders that can confidently operate in complex situations. While Combat Training Centers (CTCs) can replicate OE complexity with an unpredictable, thinking opposing force (OPFOR), operational missions provide the challenges of real-world problems.²

Soldiers with the 3rd Squadron, 2nd Cavalry Regiment conduct a squad training exercise in Adazi, Latvia, on 28 January 2015.

Photo by PFC Jaccob Hearn

During Operation Atlantic Resolve (OAR), the complex and challenging OE provides the ideal opportunity to practice mission command and develop adaptive subordinate leaders. It is also a grass-roots application of the U.S. Army Operating Concept (AOC).

Overview of the AOC

The AOC describes the challenges the U.S. Army faces in a modern OE characterized by a capable but elusive enemy, ubiquitous media, dense urban areas, technological proliferation, and increased momentum of human interaction.³ As demonstrated by the unconventional tactics employed by Russia during the 2014 annexation of Crimea or subsequent intervention in eastern Ukraine, adversaries will seize opportunities generated by the modern OE.⁴

In order to win in the modern OE against a hybrid threat, the AOC envisions a joint task force (JTF) with interagency and multinational capabilities. This JTF integrates the efforts of multiple allies and partners while maintaining the capacity to deploy and operate globally.⁵ Further, it must be able to understand the situation through action by integrating intelligence and operations while conducting combined arms



operations at a high operational tempo. In support of the JTF, units below the brigade level must be able to operate in the same complex environment the JTF seeks to shape while conducting combined arms operations integrated into the campaign plan.

Training to gain the skills to win in a complex OE requires an equally complex training environment. As GEN David Perkins, U.S. Army Training and Doctrine Command (TRADOC) commander, stated, "...the environment of the future is going to be a very complex world. It's going to be multinational; change very quickly. You have to have multiple options in multiple domains with multiple partners. So, when you take a look at U.S. Army Europe (USAREUR), it's almost custom made to do that. It's in the middle of a very complex part of the world. Every day they're working with multiple partners; they're working in multiple domains..."⁶

Background on the OAR Mission

OAR began in April 2014 in response to Russian intervention in Ukraine. Elements of the 173rd Airborne Brigade executed a series of combined multinational airborne operations into Estonia, Latvia, Lithuania, and Poland. This established a U.S. company-sized ground force in each country with a battalion headquarters providing overall command. OAR would later expand from the original OAR-North (OAR-N) countries to include the OAR-South (OAR-S) countries of Romania and Bulgaria. Mission command was provided by the USAREUR regionally aligned force. In addition to the deployment of ground forces, the U.S. enhanced participation in several other land, sea, air, and Special Operations Forces (SOF) exercises.⁷

In line with the AOC's vision on regional engagement, the purpose of OAR is to assure regional NATO allies of U.S. commitment to collective security while deterring Russian aggression in the region.⁸ At the operational level, the focus remains on multinational training intended to increase allied interoperability, enhance shared understanding, and demonstrate freedom of movement along interior lines of the NATO alliance. Further, success in OAR requires that operational units do more than just train. Participating units have to be part of winning beyond the tactical realm; as GEN Perkins argues, to realize the AOC, "When we say win, we say this occurs at the strategic level. If you want to win at the strategic level, you have to deliver all elements of national power, not just firepower."⁹

Setting the Conditions for OAR Mission Command (April-December 2014)

For the 3rd Squadron, 2nd Cavalry Regiment (3/2 CR), setting the conditions for OAR began upon redeployment from Operation Enduring Freedom (OEF) in April 2014. Key tasks for the transition to a task-organized battalion capable of conducting OAR mission command included equipment reset, manning, and training as part of the Army Force Generation (ARFORGEN) cycle.¹⁰

During the six months between redeployment from OEF to

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receipt of OAR mission in September 2014, 3/2 CR executed the reset portion of the ARFORGEN cycle to set the conditions for future missions. Common to most redeploying units, 3/2 CR experienced a high personnel turnover, which generated personnel replacement issues of retraining on individual and collective tasks. Further, key leaders throughout the squadron changed to include the squadron command team, troop command teams, and many primary staff members. The changeover of key leaders and other personnel challenged the organization's continuity of operational knowledge.

In response to these challenges, 3/2 CR executed training from August to December focused on re-mastering the basics. During this time, the squadron completed individual skills training and testing through events such as Expert Infantryman Badge, Excellence in Armor, and Expert Field Medical Badge. The squadron also conducted a skills-based selection and training program to reconstitute the squadron scout platoon. Troops then executed small arms and crewed weapons ranges culminating in Stryker gunnery. Recognizing that OAR would take place in the ARFORGEN window for collective training, a troop-level scenario with the Virtual Battlespace 2 (VBS2) was used to develop leaders' tactical proficiency for future training. While the squadron was unable to execute collective training above the team level prior to deployment, focus on individual proficiency and integration of troop teams enabled the squadron to train with NATO allies at the collective level once the squadron deployed.

After receiving the OAR mission in September, 3/2 CR executed the military decision-making process (MDMP) to deploy and subsequently train. The non-standard nature of the mission and the scope of mission command across five countries made simultaneous planning and shared understanding critical. Two iterations of pre-deployment site surveys (PDSS) helped facilitate a common operational understanding. The first PDSS, executed by squadron leadership and staff, allowed key leaders to begin to understand the OE while identifying the training focus for each NATO ally. This enabled the squadron to make deliberate decisions about how to task organize and dispose the squadron in the OE. For instance, the Latvian Land Force's (LLF's) training focus was on defensive tasks. As a result, in order to synchronize assets at the squadron level with the training objectives of our allies, Headquarters and Headquarters Troop (HHT) was task organized with the scout platoon, mortar platoon, and a

platoon of sappers from the regimental engineer squadron (RES). The second PDSS, executed by troop command teams, enabled troop leadership to begin to plan and resource training with allied forces. Throughout the planning process, engagement by both squadron staff and troop leadership enabled simultaneous planning and problem solving.

After the squadron operation order (OPORD) in November, 3/2 CR task organized into Task Force (TF) Wolfpack to meet the mission requirements identified during the planning process. As understood by our squadron, TF Wolfpack's mission was to deploy to train with allied militaries to assure them of U.S. resolve and improve NATO interoperability. Key tasks within this mission were to develop leaders who were confident in fighting with allies and understood the OE. Further, TF Wolfpack needed to maintain readiness while building relationship and interoperability with allies. In addition, communicating the strategic message while demonstrating freedom of movement throughout the AO was key.

Operations in OAR

OAR mission requirements dictated that 3/2 CR operate and conduct mission command in a joint, interagency, intergovernmental, and multinational (JIIM) environment. The squadron's operational approach was decentralization that resourced subordinate commanders with staff functions and empowered them to make decisions. To be successful, this operational approach relied on mission command in an environment of trust, utilization of JIIM capabilities, and the disciplined initiative of subordinates.

On 9 December 2014, 3/2 CR assumed mission command from the 2nd Squadron, 8th Cavalry Regiment with a task organization designed to enable mission success in a large and complex OE. The TF headquarters along with a task-organized HHT were established in Ādaži, Latvia. In each

of the other countries, elements from the RES as well as the squadron's staff, field support team (FST), and military intelligence company (MICO) augmented troops to provide the capacity to conduct decentralized operations across all seven warfighting functions (WFFs). For example, in the mission command WFF, troops were assigned signal support from 2CR RES and 3/2 CR S-6 section to provide the capacity to independently establish and maintain tactical communication. Further, one staff officer from the squadron served at each of the U.S. Embassies in a liaison officer (LNO) capacity, which proved critical to enabling freedom of movement and coordination between interagency partners. Additionally, a junior officer was assigned as a troop operations officer to enhance planning at the troop level.

With a task organization that empowered small unit leadership, TF Wolfpack executed squad and platoon-level training in an environment that was enhanced with real-world challenges. In December, TF Wolfpack U.S. Embassy LNOs set the conditions for arrival with Department of State (DoS) and host nation authorities by building the initial relationships with JIIM partners. For the duration of OAR, LNOs would be a key component of TF Wolfpack's freedom of maneuver and would provide a valuable JIIM experience for several junior officers.

As training intensified in January, each country team commander had a unique opportunity to develop a training plan that supported the strategic purpose of OAR by building interoperability while enabling progression through the Combined Arms Training Strategy (CATS). While each team executed collective training from the squad to platoon level, the training progression often varied. This was a product of each commander's adaptive approach to working with allied forces and the unique circumstances in each country. For example, Team Estonia executed winter camp with Estonian Land Forces for team through squad situational training exercises (STXs) and live-fire exercises (LFXs). However, they then executed a troop STX with Dutch forces and the Estonian scouts battalion based on host nation availability and the opportunity to demonstrate allied interoperability. The sudden jump from squad to troop collective training was mitigated by table top exercises and leader professional development (LPD) events to prepare platoon leadership to execute platoon-level maneuver. Further, when Team Estonia's platoon LFX was executed in March, it was done with Estonian Carl Gustav teams attached to each platoon. In both cases, the team balanced its CATS progression with the opportunities provided by OAR.



Photo by SSG Megan Leuck

Lithuanian soldiers alongside U.S. troops from 3/2 CR prepare to enter and clear a building during an exercise at Pabrade Training Area, Lithuania, on 26 February 2015.

Similarly, Team Lithuania developed a close relationship with its counterparts through combined winter warfare training, which resulted in the Lithuanian Agritis Battalion

inviting the team to participate in their own battalion-level STX as well as contributing elements to Team Lithuania's platoon STX. On the other hand, Team Latvia's culminating event was participation in Exercise Summer Shield, a multinational fires coordination exercise which integrated the squadron scouts, mortars, aid station, and headquarters into a multinational brigade commanded by the LLF brigade. The variety of training opportunities developed TF Wolfpack's organizational capacity for interoperability by requiring leaders to develop collaborative training plans with allies.

In addition, the presence of TF Wolfpack in the AO was an opportunity to enhance the capacity to develop situational awareness through integration with allies of intelligence and operations. Although the AO is a permissive environment, ubiquitous media and a concerted collection effort by regional adversaries meant that TF Wolfpack had to think critically about engagement with the local populace and develop a willingness to accept prudent risk to achieve strategic messaging effects. The organization gained understanding of the OE through regular interactions with DoS, host nation security, and intelligence officials in each country. This understanding enabled troop commanders who were empowered to accept prudent risk to determine where, when, and how to engage with the local populace.

One of the main avenues for mission success was through the execution of cultural engagements. These events required deliberate operational planning with information from both host nation law enforcement and U.S. force protection teams. Often these events, such as Team Lithuania's visit to Auschwitz or Team Estonia's participation in the Estonian Independence Parade, were seized on by local and national media and became part of the narrative for U.S. presence in the region.

Another aspect of mission command that presented a complex challenge was that of communicating across five countries. Based on the distances between units and the risk in communication over civilian networks, TF Wolfpack gained a greater proficiency with tactical communication systems. Daily, TF Wolfpack relied on tactical satellite, high frequency, Joint Capabilities Release, and Warfighter Information Network-Tactical systems to maintain mission command. With use of these systems in a variety of weather conditions and latitudes, Soldiers gained proficiency in establishing communication under a variety of circumstances. Further, leaders gained an appreciation for the employment and limitations of these systems.

Throughout the duration of the mission, the sustainment requirement emphasized endurance across a wide area. While the task organization provided sustainment and maintenance support in each country, flow of materiel and personnel into the AO was a challenge that engaged multiple elements of the staff and command. For example, Class IX parts movement required coordination between the troops, TF Wolfpack's sustainment cell, Defense Logistics Agency, 19th Theater Sustainment Command, and U.S. Embassy LNOs to enable movement across both distance and political

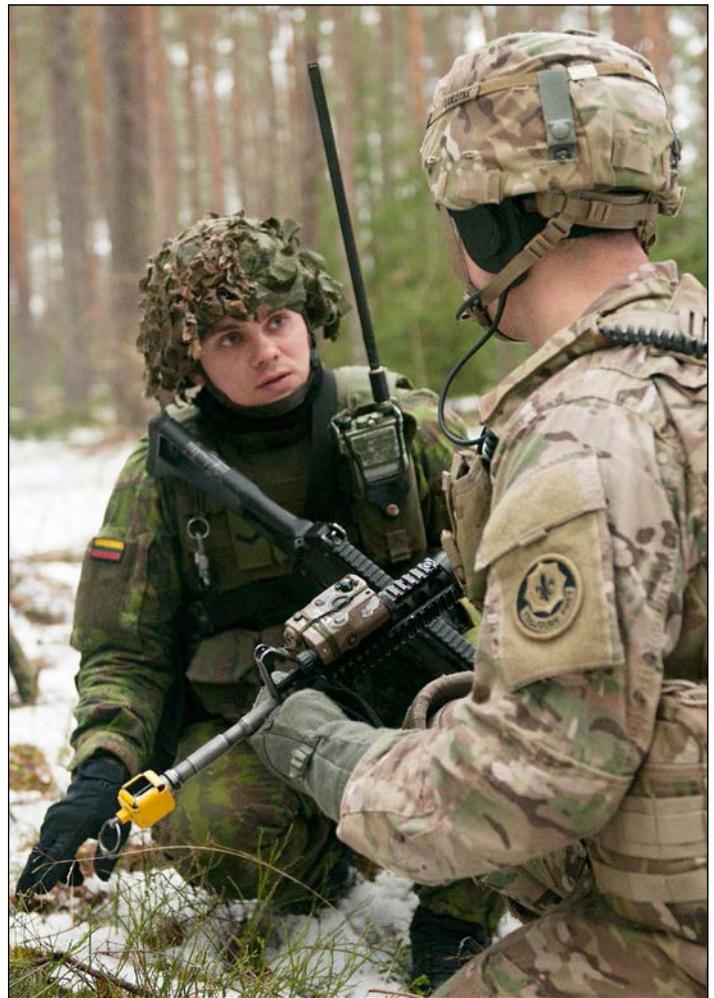


Photo by SSG Megan Leuck

A Soldier with Lightning Troop, 3/2 CR and a Lithuanian soldier discuss offensive operations and finalize assault plans during an exercise at Pabrade Training Area, Lithuania, on 25 February 2015.

boarders. Further, Class I support through Acquisition and Cross-Servicing Agreements (ACSA) required supply personnel to closely work with host nation service providers and accurately forecast requirements. Personnel movement and replacement also required regular coordination with multiple JIIM stakeholders from the local host nation garrison security offices to U.S. Embassies to track personnel transiting and training in a sovereign ally's territory. Adding to the challenge was the fact that sustainment mistakes could damage operational relationships with allies and undermine the strategic purpose of the mission. Despite the challenging environment, sustainment across TF Wolfpack was achieved through the development of systems and the cooperation of multiple supporting organizations. Ultimately, the challenges TF Wolfpack overcame enhanced its capacity to endure in a complex environment.

Operation Dragoon Ride: Reassurance of Mission Success Through Redeployment

Recognizing that the ultimate purpose of OAR was to provide assurance to regional allies and deterrence to adversaries, TF Wolfpack was tasked in March to execute

Operation Dragoon Ride (ODR), a 2,200 kilometer road march which crossed all five allied borders between the Baltics, Poland, Czech Republic, and Germany. ODR reinforced the organizational knowledge gained in regional engagement, expeditionary operations, and capability.

The experience gained during OAR led TF Wolfpack to emphasize engagement with JIIM partners early in the planning stages of ODR. During mission analysis, the enduring relationships that TF Wolfpack U.S. Embassy LNOs had created enabled them to engage DoS decision makers early in the planning process and receive their support and input. This translated into early support and planning input from host nation allies who were vital in selecting specific routes, cultural engagement sites, and rest-over-night (RON) sites for the element. Further, as the plan was refined, host nation security along the route and local police escorts became critical risk mitigation factors to protect the force. When the route was modified to include movement through the Czech Republic, an LNO to the U.S. Embassy there was quickly dispatched to make the necessary coordination with JIIM partners. Further, as the plan developed, TF Wolfpack staff and key leaders made special effort to maintain JIIM involvement in the operation with updates to gain necessary feedback and resources to complete the plan.

Beyond planning, increased proficiency with expeditionary operations enabled TF Wolfpack to sustain the movement. Early engagement in the planning processes enabled host nation support of most food, fuel, and lodging along the route through ACSAs. Additionally, individual operator proficiency in maintenance and recovery operations was a key factor in avoiding vehicle accidents and breakdowns. When breakdowns did take place, organic assets along with support from the 21st Theater Sustainment Command and 12th Combat Aviation Brigade facilitated recovery and repair. This process worked so efficiently that most vehicle issues

were repaired within 24 hours of the mobility fault, some with parts that were airlifted overnight. The capacity gained by overcoming sustainment challenges throughout OAR gave TF Wolfpack the endurance to sustain the organization over the length of the route.

The real-world complexity of OAR reinforced by ODR provided a training environment that developed leaders and small units into the team that can win in a complex world. Through decentralized command, trust from higher HQ, and understanding of the OE, the organization served as a laboratory to develop the kind of leaders and teams the Army needs to win in a complex world.

Notes

¹ Michael Howard, "Military Science in An Age of Peace," *RUSI Journal*, Vol. 119 (March 1974).

² Army Regulation (AR) 350-50, *Combat Training Center Program*, 3 April 2013.

³ TRADOC Pamphlet 525-3-1, *The U.S. Army Operating Concept: Win in a Complex World*, 31 October 2014.

⁴ Counter-Unconventional Warfare White Paper. USASOC. Retrieved from <http://www.soc.mil/Files/Counter-UnconventionalWarfareWP.pdf>.

⁵ TRADOC Pamphlet 252-8-5, U.S. Army Functional Concept for Engagement, 24 February 2014.

⁶ GEN David Perkins, DoD News Program, 10 February 2015, accessed at <https://www.youtube.com/watch?v=bah-f3B5VCc>.

⁷ Operation Atlantic Resolve fact sheet, USEUCOM, Media Operations Division, 1 May 2015.

⁸ Ibid.

⁹ Perkins.

¹⁰ AR 525-29, *Army Force Generation*, 14 March 2011.

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Soldiers with Lightning Troop, 3/2 CR travel through Poland as part of Operation Dragoon Ride on 25 March 2015.

Photo by MAJ Neil Penttila





**THE
RUSH:
*How SPEED
CAN SAVE LIVES***

MAJ NICK BARRINGER
MARTIN ROONEY

“Speed is the essence of war.”

— Sun Tzu

Basics of “The Rush”

There are only three individual movement techniques (IMTs) in the U.S. Army: the high crawl, the low crawl, and the rush.¹ These individual movement techniques can be traced back nearly 80 years in previous U.S. Army doctrine.² The movement techniques are to be utilized in the Soldier Skill Level 1 task number 071-326-0502, Move Under Direct Fire. Soldiers are to utilize the rush technique “when enemy fire allows for brief exposure” in order to move from one covered position to another.³ Other key determinants for implementing the rush are when crossing open areas and when time is critical.⁴ The following training guidance on how to properly execute the rush is provided to every Soldier either entering or currently serving in the Army (see Figure 1):

- a. Move from your firing position by rolling or crawling.
- b. Start from the prone position.
- c. Slowly raise your head and select your next position.
- d. Lower your head while at the same time drawing your arms into your body, elbows down, and pulling your right leg forward.
- e. Raise your body in one movement by straightening your arms.
- f. Spring to your feet, stepping off with either foot.
- g. Run to the next position —
 - (1) Keep the distance short to avoid accurate enemy fire.
 - (2) Try not to stay up any longer than 3 to 5 seconds so that the enemy does not have time to track you with automatic fire.
- h. Plant both feet just before hitting the ground.
- i. Fall.
 - (1) Sliding your right hand down to the heel of the butt of your weapon.
 - (2) Breaking your fall with the butt of your weapon.
- j. Assume a firing position.
 - (1) Roll on your side.
 - (2) Place the butt of your weapon in the hollow of your shoulder.
 - (3) Roll or crawl to a covered or concealed firing position.
- k. Cover your buddy’s movement with forward by fire.

Although specific guidance is given, a key piece of information is left out: how far should a Soldier run in 3-5 seconds? Research has demonstrated that mean engagement time is 3 seconds or less, so the discriminating factor of Soldier survival is not the time component of the rush but rather the speed of the movement.⁵ Therefore, a

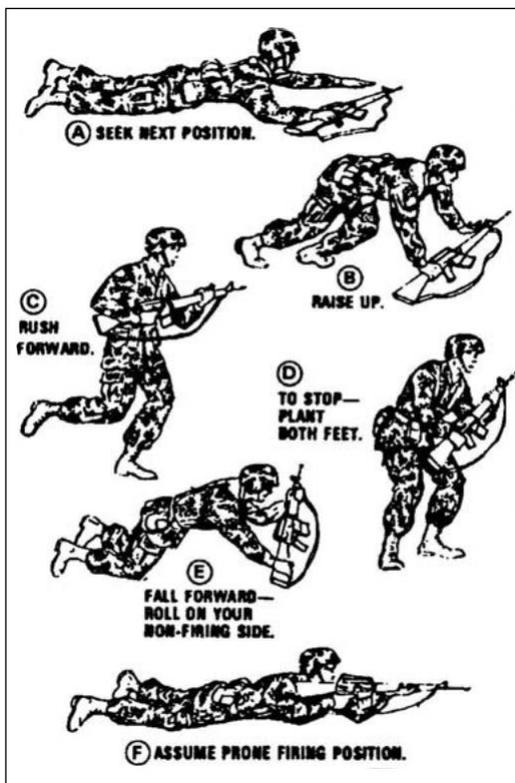


Figure 1

goal speed at which a Soldier should rush needs to be determined as this ultimately drives training and directly impacts survivability on the battlefield.

Development of the Direct Fire Speed Score (DFS3)

In order to establish optimal rush speed, we examined difficulty involved in moving target engagement and consulted a marksmanship expert and International Sniper Competition winner and then devised a scoring system (see Figure 2).⁶⁻⁷

The DFS3 is based on the assumption that a target moving at 15 miles per hour or 6.7 meters per second would be extremely difficult to accurately engage. Based on this goal speed, we can

score a Soldier on a simple 0-10 scale. The DFS3 will allow a unit to clearly mark targeted distances when conducting IMT training and adopt training strategies to increase Soldiers' speed on the rush. For example, to reach the optimal DFS3 of 10, a Soldier should cover 20-33.5 meters in a 3-5 second time span. Given this goal, a unit training plan should include targeted sprint training regimens to increase Soldier speed.

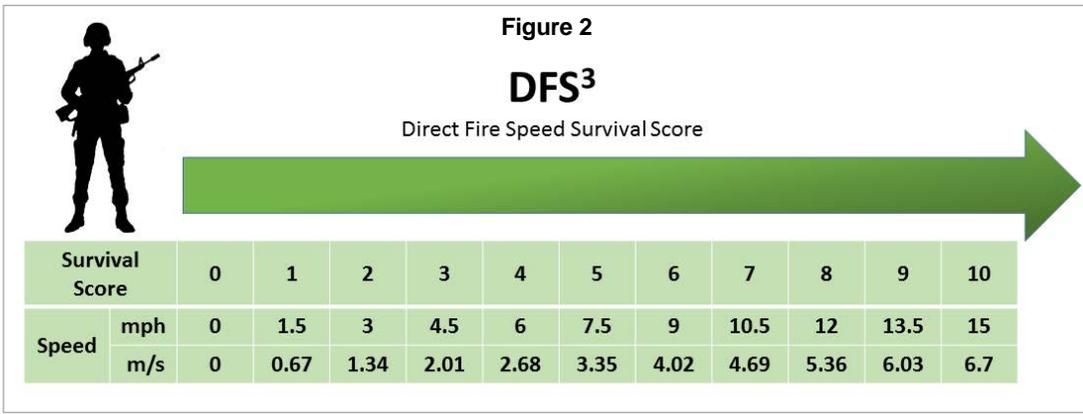
Interestingly, the goal speed of 6.7 meters per second is supported by historical data as the Army's Individual Efficiency Test from 1920 required a Soldier to run 100 yards in 14 seconds in order to pass, which would be 6.5 meters per second.⁸ Given that the rush technique is attributed to German Storm Trooper “infiltration tactics” of World War I, and the 1920 Individual Efficiency Test was most likely based on lessons learned from the war, it is significant that the 6.5-meter speed goal was utilized previously and this goal is almost identical to the speed we determined independent of this historical information.⁹ Furthermore, researchers created a Survival Probability Equation:¹⁰

$$\text{Time}_{\text{shooting}} = \text{Distance}/\text{Velocity}-\text{Reaction Time}$$

$$\text{Shots} = \text{Time}_{\text{shooting}} * \text{Shooting Cadence} + 1$$

$$\text{Survival Probability} = (1-\text{Accuracy})^{\text{Shots}}$$

Based on this model, if two Soldiers had the same reaction time and had to cover 30 meters of exposed distance receiving enemy fire at a rate of one round per second estimating 20 percent enemy accuracy with Soldier A running 3.3 meters per second and Soldier B running at the goal 6.7 meters per second, the model would give Soldier B a 37 percent greater chance of survival. The increased chance of survival is directly



from Dr. Michael Stone for consideration: If the Soldier cannot squat two times his/her body weight, strength should still be considered a limiting factor in speed development.¹⁸ Although the specifics of a comprehensive strength and conditioning program is beyond the scope of this article, readers may reference guidance provided by

linked to the enemy being able to fire seven rounds at Soldier A versus two rounds at Soldier B. This scenario demonstrates the impact of speed training directly resulting in increased Soldier survivability (see Figure 3).

William Kraemer and Tunde Szivak in “Strength Training for the Warfighter,” which is available at <http://hprc-online.org/physical-fitness/files/STRENGTHTRAINING.pdf>.¹⁹

Another value the DFS3 provides is a field-expedient gauge to determine sprint performance degradation under load. Since the rush technique is to be utilized in a tactical scenario, the goal is for Soldiers to achieve a “10” score in their respective combat load. Given the established performance degradations caused by load, leaders can weigh the cost vs benefit of items based on weight especially if the items reduce Soldiers’ speed to a rate where combat risk might be significantly increased.¹¹⁻¹³ Currently no equation exists for leaders to determine level of performance degradation based on load. Although a load-bearing speed model is currently being developed by researchers with velocity under a specific load being equal to a yet-to-be determined coefficient multiplied by load divided by bodyweight multiplied by maximum unloaded velocity — $V_L = C_1 \times (L/W_b) \times V_{UL}$.¹⁴ By utilizing the DFS3 as an assessment of load-bearing performance, leaders can now adjust either load, training, or both to optimize Soldier sprint performance while maximally mitigating direct fire exposure risk.

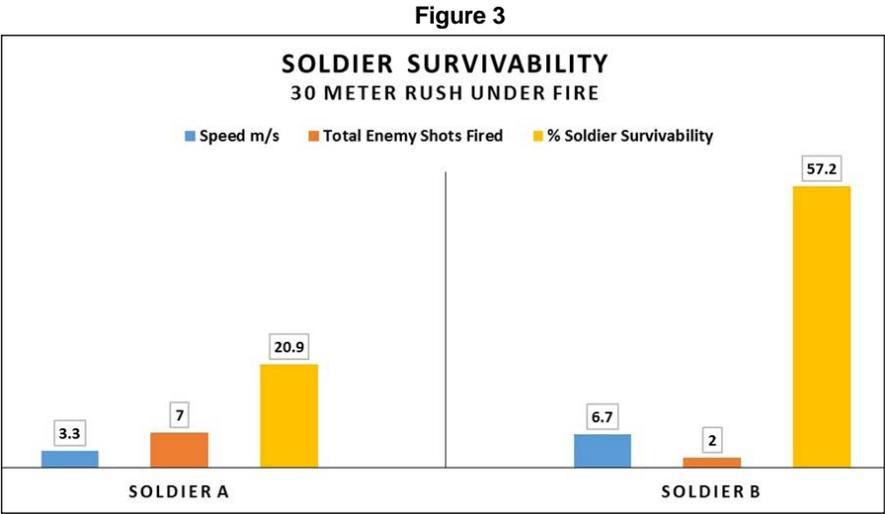
A concern some leaders may have with sessions solely focusing on sprint training is the lack of sufficient aerobic stimulus especially if training sessions are limited due to other requirements. A solution to improve both sprint performance while maximizing metabolic conditioning has been offered in the form of a “hurricane”-style workout developed by Martin Rooney.²⁰ Below is a field-expedient “hurricane” workout example that could be used by tactical athletes:

- Physical Readiness Training (PRT) Movement Prep**
- 1a. 30 meter (~33 yards) shuttle sprints from the prone for 30 seconds (goal is to complete 3-5 30 meter sprints in 30 seconds) x 3 sets
 - 1b. Push-ups 3x10
 - 1c. Overhead press 3x10
 - 2a. 30-meter shuttle sprints from the prone x 3 sets
 - 2b. Pull-ups 3x10
 - 2c. Prone row 3x10
 - 3a. 30-meter shuttle sprints from the prone x 3 sets
 - 3b. Lunge 3x10 (each leg)
 - 3c. Glute bridge 3x10

Training for Acceleration and Velocity

One of the key attributes associated with acceleration and velocity is lower body strength.¹⁵⁻¹⁶ However, given that much of the physical training that goes on currently focuses on the endurance-based, three-event Army Physical Fitness Test (APFT), many Soldiers are not maximizing their acceleration and velocity potential. As demonstrated by Jesse Mala and colleagues, one repetition maximum (1RM) back squat performance was significantly inversely correlated (-0.58) with 30-meter sprint times from the prone in Reserve Officer Training Corps (ROTC) cadets where push-ups, sit-ups, and the 2-mile run time had no statistically significant relationship to 30-meter sprint performance.¹⁷ Since the relative strength of the individual will play more of a role in sprint performance than absolute strength, we recommend the following 1RM squat guidance adapted

*For example, for set 1: A Soldier would start from the prone position, sprint 30 meters, and drop into the prone



position facing back at starting line. The Soldier would rapidly pop-up and repeat the 30-meter sprint prone scenario for 30 seconds. Once 30 seconds are up, the Soldier immediately goes into 10 push-ups followed by 10 overhead presses before repeating the 30-meter sprinting protocol.

Needed rest can be taken between each round and reduced as conditioning improves. This is just a sample program of how sprints along with auxiliary exercises can be incorporated into a physical training schedule while still maintaining conditioning.

Some key sprinting cues leaders can provide their Soldiers are:

- Keep center of gravity low and forward (lean forward)
- Push back from the ground with our feet (like trying to push a car forward as fast as you can)
- Keep elbows at 90 degrees, drive hard and fast with your arms with all movement generated from shoulders (faster arms move = faster legs move)

Another key consideration in Soldier sprinting versus traditional athletic models is the constraint of holding a weapon while sprinting. While we could not locate any research determining the specific sprint decrements this constraint may cause, the athletic model of field hockey reports an average 0.10 meter per second reduction from 2-12 meters when athletes times were compared to running with and without a stick.²¹ Given this constraint, it is important for leaders to train sprinting with a weapon or appropriately weighted implement to maximize the specificity of the training. The slow addition of combat load over the training cycle is also key in both training and assessing your Soldiers' "real-world" sprinting ability.

In our most recent conflicts, tremendous advances in armor and medicine have resulted in exponential improvements in Soldier survivability. But even with these advances, as the leading trauma experts point out in the article "Death on the Battlefield (2001–2011): Implications for the Future of Combat Casualty Care," "as most pre-MTF (Medical Treatment Facility) deaths are nonsurvivable, mitigation strategies to impact outcomes in this population need to be directed toward injury prevention."²² One such overlooked mitigating factor is the speed of the Soldier. By shifting physical training focus from purely endurance-based runs to a more sprint-based approach, leaders can actively increase their Soldiers' chances of being "left of the boom" and having the luxury of not relying solely on armor and medicine for survivability.

Notes

- ¹ Field Manual (FM) 3–21.8, *The Infantry Rifle Platoon and Squad*, 2007.
- ² FM 7-5, *Infantry Field Manual - Organization and Tactics of Infantry - The Rifle Battalion*, 1940.
- ³ Soldier Training Publication (STP) 21-1-SMCT, *Soldier's Manual of Common Tasks, Warrior Skills Level 1*, 2006.
- ⁴ FM 3-22.1 (FM 23-1), *Bradley Gunnery*, 2003.
- ⁵ Robin L. Gillingham, Allan A. Keefe, and Peter Tikuisis, "Acute Caffeine Intake Before and After Fatiguing Exercise Improves Target Shooting Engagement Time," *Aviation, Space, and Environmental Medicine* 75 (2004): 865-871.
- ⁶ Gregory K.W.K. Chung, Sam O. Nagashima, Girlie C. Delacruz, John J. Lee, Richard Wainess, and Eva L. Baker, "Review of Rifle Marksmanship

Training Research," CREST Report 783, 2011.

⁷ J. St. John, personal communication, 2016.

⁸ Joseph J. Knapik and Whitfield B. East, "History of United States Army Physical Fitness and Physical Readiness Testing," *U.S. Army Medical Department Journal* (April-June 2014): 5-19.

⁹ Ian Drury and Gerry Embleton, *German Stormtrooper 1914-18* (Oxford, UK: Osprey Publishing, 1995).

¹⁰ Elaine M. Blount, Stacie I. Ringleb, Andreas Tolk, Michael Bailey, and James A. Onate, "Incorporation of Physical Fitness in a Tactical Infantry Simulation," *The Journal of Defense Modeling and Simulation: Applications, Methodology, Technology* 10 (2013): 235-246.

¹¹ Joseph J. Knapik, Katy L. Reynolds, and Everett Harman, "Soldier Load Carriage: Historical, Physiological, Biomechanical, and Medical Aspects," *Military Medicine* 169 (2004): 45-56.

¹² Alison K. Laing Treloar and Daniel C. Billing, "Effect of Load Carriage on Performance of an Explosive, Anaerobic Military Task," *Military Medicine* 176 (2011): 1027-1031.

¹³ Eric K. O'Neal, Jared H. Hornsby, and Kyle J. Kelleran, "High-Intensity Tasks with External Load in Military Applications: A Review" *Military Medicine* 179 (2014): 950-954.

¹⁴ Peter Weyand, "Locomotion With Loads: Practical Techniques for Predicting Performance Outcomes," Defense Technical Information Center document, 2015.

¹⁵ U. Wisløff, C. Castagna, J. Helgerud, R. Jones, and J. Hoff, "Strong Correlation of Maximal Squat Strength with Sprint Performance and Vertical Jump Height in Elite Soccer Players," *British Journal of Sports Medicine* 38 (2004): 285-288.

¹⁶ Laurent B. Seitz, Alvaro Reyes, Tai T. Tran, Eduardo Saez de Villarreal, and G. Gregory Haff, "Increases in Lower-Body Strength Transfer Positively to Sprint Performance: A Systematic Review with Meta-analysis," *Sports Medicine* 44 (2014): 1693-1702.

¹⁷ Jesse Mala, Tunde K. Szivak, Shawn D. Flanagan, et al, "The Role of Strength and Power During Performance of High Intensity Military Tasks Under Heavy Load Carriage," *OURNALS* (2015) :3.

¹⁸ Michael H. Stone, Gavin Moir, Mark Glaister, and Ross Sanders, "How Much Strength is Necessary?" *Physical Therapy in Sport* 3 (2002): 88-96.

¹⁹ William J. Kraemer and Tunde K. Szivak, "Strength Training for the Warfighter," *The Journal of Strength & Conditioning Research* 26 (2012): S107-S118.

²⁰ Martin Rooney, *Training for Warriors. The Ultimate Mixed Martial Arts Workout* (NY: HarperCollins, 2008).

²¹ Maximilian M. Wdowski and Marianne J. Gittoes, "Kinematic Adaptations in Sprint Acceleration Performances Without and With the Constraint of Holding a Field Hockey Stick," *Sports Biomechanics* 12 (2013): 143-153.

²² Brian J. Eastridge, Robert L. Mabry, Peter Seguin, et al. "Death on the Battlefield (2001–2011): Implications for the Future of Combat Casualty Care" *Journal of Trauma and Acute Care Surgery* 73 (2012): S431-S437.

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Martin Rooney is the founder for Training For Warriors and currently serves as its head coach. Rooney holds a master of health science degree and bachelor of physical therapy degree from the Medical University of South Carolina. He also earned a bachelor's degree in exercise science from Furman University. Martin is an internationally recognized strength coach who as a partner with the Parisi Speed School, developed one of the top NFL Combine training programs in the country producing the fastest athlete at the 2001, 2004, 2005, and 2006 NFL Combine. Martin has served as speed consultant for several NFL teams to include the Jets, Giants, and Bengals as well as multiple NCAA football teams to include Arizona State and the University of Alabama. Martin has worked and consulted with tactical athletes at the 101st Airborne Division and the 75th Ranger Regiment.

RUSSIAN HYBRID WARFARE AND ITS RELEVANCE TO THE U.S. ARMY'S INFANTRY

MAJ AMOS C. FOX

In Eastern Europe, Russia has been employing an emergent version of hybrid warfare that is highly integrated, synchronized, and devastatingly effective. While hybrid warfare is not new — it is a natural progression of the concepts of combined arms and joint warfare — Russia's approach to it warrants analysis. Russia's approach has significant relevance for the U.S. Army's Infantrymen and the formations in which they find themselves. While not an all-encompassing analysis of Russian hybrid warfare, this article will highlight a few of the major trends of which Infantrymen should be aware. Additionally, it will close with the implications of those trends and recommendations for moving forward in light of the evolving operating environment.

Emerging Trends of Russian Operations

Russia's approach to war in Georgia (2008), Crimea (2014), and the Donbass region of Ukraine (2014-present), coupled with a massive reinvestment in their military has yielded startling results on the battlefield. Russia's actions in the Donbass provide an interesting look at the direction in which war is likely trending. Furthermore, these actions demonstrate how a nation or potential adversary observes the world around it and adjusts its military capabilities to the contemporary environment, with consideration of economic means and political objectives.

Russia, observing the hollowing out of U.S. Army Europe and NATO through the mid-to-late 1990s and into the 2000s, capitalized on that by rebuilding a robust conventional ground force. According to Andrew Monaghan, a Chatham House research fellow, Russia invested more than \$640 billion to modernize its force, increasing its capabilities by more than 700 modern attack aircraft, 2,000 tanks, and 2,000 tracked and self-propelled guns.¹ This includes major upgrades to conventional Russian ground combat platforms such as the T-72B3, T-80, T-90, the BMP-3, and MT-LB family of infantry fighting vehicles and personnel carriers, and the introduction of the T-14 Armata.

Next, Russia made extensive use of conventional mechanized ground forces during initial phases of the Ukrainian incursion. Most of the fighting consisted of high-intensity combat operations highlighted by the ubiquitous employment of tanks, mechanized infantry, and artillery (tubed and multiple launch rocket), in conjunction with drones, and electronic and cyber warfare, according to Monaghan.² Ukrainian forces were largely unprepared for the large armored assaults the Russians launched. As a result, the Ukrainians paid dearly for

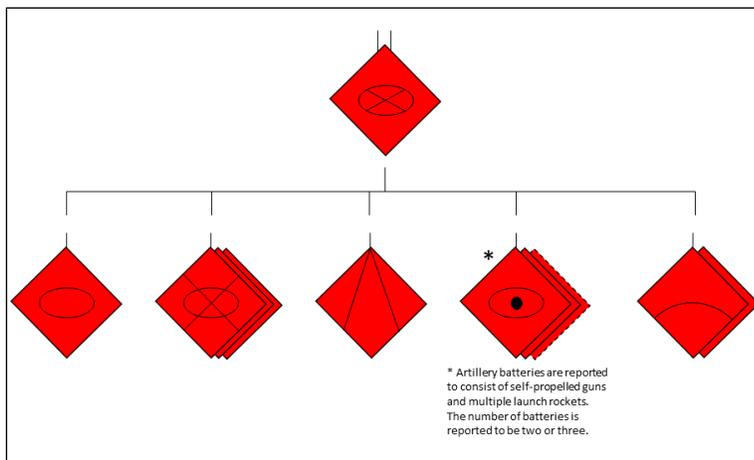


Figure — Reported Task Organization of Russian Combined Arms Battalion

their unpreparedness, as illustrated by Russian mechanized forces routing Ukrainian forces around eastern Ukraine in August 2014.³

Russia has revamped its task organization, building much larger and diverse combined arms battalions which are capable of operating along fronts of approximately 40 kilometers.⁴ These battalions are characterized as highly integrated, extremely powerful, and exceptionally mobile. The combined arms battalions operating in the Donbass region of Ukraine generally consisted of a tank company, three mechanized infantry companies, an anti-tank company, two to three batteries of artillery (self-propelled guns and multiple launch rocket), and two air defense batteries.⁵ Reports indicate that Russia will employ its artillery assets in a direct-fire role, proving frontal firepower out to approximately six kilometers to set the conditions for the maneuver elements to launch concentrated, rapid attacks — all of which comes on the heels of the targeted employment of cyber, electronic, and information capabilities.⁶

Additionally, Russia maintains a robust integrated air defense system (IADS) — from strategic capabilities to tactical-level capabilities. Russia's recent operations in Eastern Europe demonstrate the integral role IADS plays in Russian operations. The employment of IADS immediately on the heels of territorial acquisition serves to deter aerial counterattack or aerial support; thus, Russia essentially takes the territory they want, then quickly transitions to a highly integrated defense, challenging foes to evict them from the conquered territory. The Russian IADS wall provides a formidable barrier for those whom Russia wants to keep at bay.⁷

Implications and Recommendations

Leaders in infantry and mechanized units must heed the lessons being provided by Russia's operations in Eastern Europe because they provide insight into the evolving nature of conflict. Leaders must understand that Russia's anti-access/air defense and intensely concentrated IADS capability will mean that U.S. domination of the air is no longer a guarantee. In addition to the IADS capability, tactical Russian ground combat formations, down to the company level, are often equipped with man-portable air defense surface-to-air missiles.⁸

U.S. Army land forces must be capable of fighting and winning without relying on airpower, whether that be rotary wing or fixed wing. It is a very real possibility that U.S. Infantry units and combined arms battalions might find themselves in a forward engagement, operating under contested skies, and having to fight and win with their organic equipment and direct support fire support. Leaders must acknowledge this environment and incorporate it into their unit training plans.

The re-emergence of armor on the modern battlefield swings the pendulum back towards mechanized warfare. This has two primary implications for Infantrymen — the necessity to reinvest in anti-armor operations (mounted and dismounted, increasing proficiency with the Bradley Fighting Vehicle [BFV]) and to reemphasize the role of mechanized battle.

Furthermore, the inherent protection of the Russian tanks — most outfitted with the latest in reactive and active-armor defense systems technology — provide a real problem for U.S. tank crews. As such, Infantrymen must play a vital role in defeating armor threats through the effective employment of antiarmor capabilities. Anti-armor units — and their leaders — must

take a renewed interest in anti-armor doctrine.⁹ The Army cannot allow anti-armor formations and anti-armor training to stagnate. Leaders must reinvigorate these capabilities to meet the threat of armor and mechanized warfare head-on. Leaders must reinvest in training their anti-armor teams and crews — from employment and engagement techniques to the clever use of tactics to functionally, positionally, and temporally dislocate enemy armor.

Similarly, mechanized units cannot assume risk with BFV TOW (tube-launched, optically-tracked, wire-guided) missile training. Mechanized leaders must routinely train on employing the TOW missile. Additionally, mechanized leaders must continue to emphasize the importance of gunnery proficiency and effective BFV employment techniques in relation to terrain. An inexpensive idea is getting Soldiers more time with the Bradley Advanced Training System (BATS) to work on engagement techniques; more time in the Close Combat Tactical Trainer (CCTT) and terrain walks can assist leaders in understanding how to use terrain to their advantage.

Lastly, in light of the tangible, existential threat posed by the reemergence of mechanized warfare — coupled with the largely unknown effects of novel approaches to hybrid warfare — the U.S. Army Infantry School and the Maneuver Center of Excellence would be wise to reevaluate the role the BFV, mechanized warfare, and anti-armor doctrine play in their respective curriculums.

Soldiers maneuver Bradley Fighting Vehicles during an exercise on Fort Benning, Ga.

Photo courtesy of author



Conclusion

In conclusion, Russia's recent operations in Eastern Europe demonstrate a threat the U.S. Army has not had to deal with in very many years. These operations pose some unique challenges to the U.S. Infantry and ground combat formations. Specifically, the sophistication of IADS and tactical air defense systems means the U.S. Army will potentially find itself fighting on battlefields where air superiority is not guaranteed. Thus, ground combat formations must be capable of fighting and winning without dedicated air support. Next, the re-emergence of Russian armor means that Infantrymen must be deft at employing U.S. anti-armor systems and in employing tactics to effectively dislocate armor threats positionally, functionally, and temporally. BFV-equipped formations must focus on increasing proficiency with engaging and destroying targets with the 25mm gun while developing the know-how to meld the use of the BFV with terrain. Each of these recommendations is fairly simple and does not require extensive resources. Failure to begin thinking about these changes on the modern battlefield will prove disastrous for U.S. ground forces.

Notes

¹ Andrew Monaghan, "Putin's Way of War: The 'War' in Russia's 'Hybrid Warfare,'" *Parameters* (Winter 2015-16): 69.

² *Ibid*, 68.

³ U.S. Army Special Operations Command, "'Little Green Men': A Primer on Modern Russian Unconventional Warfare, Ukraine 2013-2014," 52.

⁴ Russian combined arms battalions are often referred to as battalion tactical groups. They are part of Russian brigades; Russia has not been deploying brigades, but task organizing combined arms battalions to operate in Ukraine. In 2014, it was reported that 13 Russian combined arms battalions were operating in Ukraine. See "Little Green Men: A Primer on Modern Russian Unconventional Warfare, Ukraine 2013-2014," 42.

⁵ Phillip Karber and LTC Joshua Thibeault, "Russia's New Generation Warfare," *Army* (June 2016): 7.

⁶ *Ibid*, 5.



Photo by SPC Marcus Floyd

Soldiers with the 1st Armored Brigade Combat Team, 3rd Infantry Division conduct training using the BATS at Camp Konotop, Poland, on 28 April 2015.

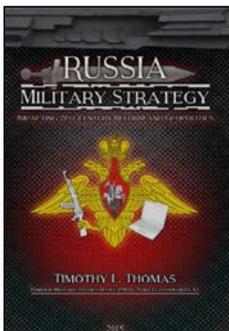
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LEADER COMMUNICATION

'CAN YOU HEAR ME NOW?'

LTC (RETIRED) MARTIN M. REYNA

Technological advancements and innovation have instituted many changes in modern organizations. The Verizon "can you hear me now" catchphrase clearly conveys the message how 21st-century technology makes it easier for us to communicate in a global society today. Communication has always played a vital role in society, but the influence of globalization has changed our views on how we use communication skills in the leader-follower interface.¹ Consequently, the impact on leadership has led to rethinking the theoretical and philosophical approaches towards leadership communication. A major shift in this paradigm has focused on the concept of communication between leader and follower. The leader-follower relationship is a classic symbiotic bond that undergoes adjustments and changes over time.

To be a good leader, it takes more than being a graduate of a leadership course or wearing the rank of a leader that signifies the level of responsibility. Strong leaders are always working on honing their leader skills to attain a higher level of proficiency and mastering their core leader competencies to lead effectively. As officers and NCOs move through the programmed levels of professional military education, culture and doctrine steer them through the military principles of leadership, traits of character, styles of leadership, decision-making process, command and control, communication, current how-to-fight doctrine, military history and ethics, and principles of good discipline. The single most common factor shared across this broad range of leadership themes is communication.

Contrary to popular belief, communication is more than simply transmitting verbal and non-verbal messages.² As a matter of fact, communication has always been and will continue to be central to everything we do in our daily life. In their book *Leadership: A Communication Perspective*, authors Michael Z. Hackman and Craig E. Johnson describe leader communication as critical to the leader's survival and the most vital attribute that a leader can acquire.³ If you look closely around you, communication is used in every task and every action that a leader performs as he interacts with followers, colleagues, and superiors. More precisely, communication bridges the gap of understanding and comprehension between the leader and his followers. When applying communication in an intelligent manner, communication has the power to inform, motivate, challenge, shape, inspire, and persuade followers to perform to the leader's expectation.⁴ While all this seems rather easy to accomplish, the truth of the matter is that mastering communication skills is not a simple laid-back process. Leaders can expect that as doctrine changes the likelihood that change will impact on leadership

approaches is great. Consequently, maintaining proficiency in leadership communication is a lifetime commitment toward self-improvement. There is one thing certain about change — it is constant. Doctrinal changes currently in progress will very likely undergo revision with more changes in the future. Hence, as technology redefines strategic and tactical doctrine, leaders must be ready to adapt to corresponding changes in leader communication.

Helpful Techniques on How to Evaluation Your Communication

Sometimes the message that is transmitted is not clear or is misunderstood. To deal with these barriers, leaders should develop a communication strategy to overcome the obstacles hindering effective leader-follower communication. By acknowledging and understanding the deficiencies detected in their communication skills, leaders can initiate the first step towards remedying the situation and achieving the intended outcome.

To determine if they have communication problems, leaders must evaluate their weaknesses before taking corrective action. Leaders have the responsibility to improve their communication skills by seeking help or through self-improvement techniques. Poor communication skills are usually exhibited in the actions of the followers. Evaluating your communication skills is not an easy process. Consequently, leaders need to be vigilant and watch for certain types of behavior that can impede teamwork and mission accomplishment, and determine if communication is the root cause of the problem. The warning signs that something is wrong will be evident if the organization's overall performance is substandard. This is often manifested in confusion among the ranks of the followers, failure to execute assignments and tasks, lack of clarity in instructions, low morale, and lack of cohesion.

Start off by realizing that effective communication requires incredible skill and years of dedicated practice. Perhaps the most expedient and effective approach towards self-evaluation is to invite feedback from your audience. Feedback may be from voluntary or involuntary sources that the leader has frequent communication exchanges. By inviting feedback, leaders have multiple sources providing critical assessments that can be used to evaluate the effectiveness of leader communication. When using other sources to help you evaluate your communication, take to heart the quote from Benjamin Franklin, "Critics are our friends; they show us our faults."⁵ Evaluate your communication by having colleagues assess your skills.

When receiving feedback, you should strive to:

Be Receptive — accept feedback: If you are sincere about evaluating your skills, your attitude will signal that you are willing to accept constructive criticism intended to help you communicate effectively.

Be Positive — avoid a defensive posture: Showing that you are thin-skinned will convey the message that you are not mature enough to accept the fact that you have a leadership deficiency.

Be Open — accept criticism: Perhaps one of the most difficult admissions in life is accepting that you are not perfect. However, by being open to critical assessment, you can learn from your mistakes.

Be Proactive — implement strategy: Develop a plan to address issues that have been identified as deficient.

Be Persistent — don't give up trying to master the skills necessary for improvement.

What Can Be Done to Improve Your Communication

Possessing great leadership traits and attributes includes the ability to apply communication skills that clearly convey the leader's vision, goals, direction, and expectations to his followers. Donald G. Ellis and B. Aubrey Fisher assert in their book *Small Group Decision-Making: Communication and the Group Process* "that some of the positive communication behaviors that account for successful leader emergence include being verbally involved, being informed, seeking leader's opinions initiating new ideas, and being firm but not rigid."⁶ To maintain a high level of proficiency requires that leaders seek continuous improvement and incorporate new approaches and adaptations resulting from changes to the concept of leader communication.

In improving communication effectiveness, the leader must first determine the leadership skills and behaviors that constitute the competencies associated with leader communication. By comparing the competency expectation required for a leadership level and the individual's standard for the same competency, a leader can gain an expedient appreciation for the gap in his/her skills. The leader must then assess how to bridge this gap and then develop a training plan to overcome this shortcoming. A well-designed and tailored communication training plan will guide the leader through a self-development process that will culminate in the successful attainment of the intended learning objectives. Leaders must recognize that continued acquisition of effective communication skills is a never-ending process. Leaders must apply these newly honed skills to achieve the vision and goals of the organization. James M. Kouzes' and Barry Z. Posner's advice to leaders is: "Your job as a leader is to make sure that people get the

information they want and need, when they want and need it, and in the form they can use and understand."⁷

Communication Styles in Global Environments and Cross-Cultural Communication

As mentioned earlier, communication has played a key role in the evolution of societies the world over. Communication is even more vital today as the influence of globalization, interdependence, and innovation have impacted on communication skills needed in cross-cultural interaction. Today, communication has extended far beyond the homogeneous boundaries of the past. The introduction of sophisticated technology has compressed time and space in such a manner that has drawn societies in a worldwide metropolis. Leaders must understand the implications of globalization in the context of cultures, customs, language, and communication. Acknowledging that changes are needed to coexist in a cross-cultural environment will help the leader select the appropriate skills necessary to adapt to this huge paradigm shift.

The arrival of global communication has introduced new meanings and concepts to communication skills leaders need in the 21st century. Take a survey of your immediate area and envision how communication took place without computers, the Internet, email, teleconferencing, GPS, and portable electric devices such as laptops, smartphones, notebooks, etc. Leaders must understand that they may be required to have direct communication exchanges with a counterpart from an international agency in the acceptable protocol styles of different cultures and countries. As the world continues to shrink in time and space, the realities and dynamics of cross-cultural communication will likely become a common scenario.

Notes

¹ Eric M. Eisenberg, H.L. Goodall, and Angela Trethewey, *Organizational Communication: Balancing Creativity and Constraint* (NY: Bedford/St. Martin's Press, 2010).

² Michael Z. Hackman and Craig E. Johnson, *Leadership: A Communication Perspective* [6th edition] (Long Grove, IL: Waveland Press, Inc., 2013).

³ Ibid.

⁴ Helio Fred Garcia, *The Power of Communication: Skills to Build Trust, Inspire Loyalty, and Lead* (Upper Saddle River, NJ: FT Press, 2012).

⁵ Quote retrieved from <http://www.iwise.com/RSeFA>.

⁶ As cited in *Leadership: Theory and Practice* by Peter G. Northouse (Thousand Oaks, CA: SAGE Publications, 2013)

⁷ James M. Kouzes and Barry Z. Posner, *The Truth About Leadership: The No-Fads, Heart-of-the-Matter Facts You Need to Know* (San Francisco: Jossey-Bass, 2010).

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ARMORED TASK FORCES:

NATO'S COMBINED ARMS ANSWER TO THE RUSSIAN CHALLENGE

MAJ NATHAN JENNINGS

In February of 2014, just six years after Russia invaded Georgia with heavy tanks, the world watched aghast as it brazenly occupied Crimea with light armored infantry. Though relatively few in number, the sudden act of aggression effectively allowed Moscow to seize key terrain on the Black Sea with ominous strategic implications before the West could intervene. Since then the former Soviet empire has continued to destabilize Ukraine with an insidious, hybrid military campaign as NATO has, at times, appeared unable to prevent the expansion.

However, over the past two years, the United States and Europe have been responding with increasing decisiveness as they deploy a series of combined arms task forces — in concert with ongoing strategies to politically and economically isolate the aggressor — to partner in former Eastern-bloc countries. As directed in the 2014 Army Operating Concept, this positioning is allowing operational potential to maneuver “dispersed over wide areas” and “develop *situational understanding through action* while possessing the *mobility to concentrate rapidly*.”¹ If the Russians initially gained the military-political initiative through preemptive positioning of imposing forces in Crimea, the West is responding with similar boldness across Eastern Europe on a larger scale.

Bulgarian and U.S. Soldiers conduct an offensive movement with a Boyevaya Mashina Pekhoty 1 (BMP -1P) and a Bradley Fighting Vehicle during Exercise Peace Sentinel at Novo Selo Training Center, Bulgaria, on 22 November 2015.

Photo by SSG Steven M. Colvin

Called Operation Atlantic Resolve, the resulting power projection has evolved truly combined arms in nature with intentional emphasis on the unique combination of mobile-protected firepower that only diverse armored forces possess. The deployment of task forces comprising mechanized, Stryker, and light infantry, main battle tanks, armored cavalry, tracked artillery, and heavy engineers to threatened countries like Poland, Lithuania, Bulgaria, Estonia, Latvia, Lithuania, and Romania decisively empowers broader coalition efforts to deter Russian advances. As declared by the commander of the 173rd Airborne Brigade during the operation's initial stages, the scheme will likely result in an “operation that stretches from the Baltics all the way down to the Black Sea.”²

More graduated than unrealistic threats of massive aerial bombardment, less transitory than naval presence, and complementary to intervention by special operations forces, the positioning of heavily armed teams in proximity to Russian borders offers viable strategic deterrence. This unique capacity to respond to Soviet-style intimidation stems from the proven tactical value of well-trained and resourced combined arms forces when synergized with lighter units. According to U.S. Army doctrine, such units are optimized to excel at “sustained and large-scale actions in full spectrum operations” while their “combination of firepower, tactical



mobility, and organic reconnaissance assets” makes them “invaluable to a higher headquarters commander in combat operations.”³

Brigades containing a versatile panoply of mechanized battalions — all armed with large-caliber weapons, protected by armored hulls, and propelled through difficult landscapes by tracked mobility — wield combinations of lethality, survivability, and maneuverability unmatched in land warfare. Even as they hold immense capacity to defend against enemy attacks, armor-centric task forces possess an ability to unleash devastating firepower against opponents as they synergize efforts with wheeled, airborne, and light infantry components. It is no coincidence that the very territories that were once the scene of epic armored clashes between Nazi and Soviet armies during World War II, including Crimea, have again emerged as sites of relative maneuvering by NATO and Russian heavy forces as they jockey for positional advantage.

These singular qualities justify why the United States’ decision to deploy highly lethal combined arms and coalition contingents not just to Germany, but across Eastern Europe, has served as an effective and enabling military component to NATO’s larger political strategy to block Russia. It empowers allied commanders with capacity to, as required by U.S. Army doctrine, “prevent conflict, shape the security environment, and win wars” through “joint combined arms operations.”⁴ Moving beyond tactical equations, the messaging to both allies and opponents is clear: America has rejoined the game. Reversing recent trends of reducing the U.S. Army’s fighting ground presence in Europe to less destructive wheeled and airborne units, the return of American mechanized forces to the former theater of Cold War confrontation definitively communicates strength of national will.

This tangible statement of martial resolve — when employed to encourage political and economic unity amongst NATO participants — holds immediate potential to bolster allies and intimidate opponents. Falling under the Army competency of *wide area security*, it is defined as “the application of the elements of combat power to protect populations, forces, infrastructure, and activities to deny the enemy positions of advantage and to consolidate gains in order to retain the initiative” while providing “the joint force commander with reaction time and maneuver space.”⁵ On one hand, large countries like England, Germany, and Poland — in addition to other smaller and more vulnerable states in Eastern Europe — will be reassured by America’s deliberate stand against Moscow’s subversive designs. On the other, the revanchist Russian empire will find itself strategically frustrated, or at the very least operationally blocked, from further military expansion without a risk of greater cost.

The effect of this armored network, symbolically dropping a cordon of NATO steel in place of the old Soviet iron curtain, holds potential to dissuade Moscow while synergistically enhancing diverse elements of allied coercive power. LTG

Brigades containing a versatile panoply of mechanized battalions — all armed with large-caliber weapons, protected by armored hulls, and propelled through difficult landscapes by tracked mobility — wield combinations of lethality, survivability, and maneuverability unmatched in land warfare.

H.R. McMaster, former commander of the Maneuver Center of Excellence and ardent champion for maintaining a robust American mechanized corps, has perhaps best articulated the rationale behind Atlantic Resolve and the importance of synergizing armored units with equally vital combined arms and joint forces. In an influential *Military Review* article that is now required reading at the U.S. Army Command and General Staff Officers Course, the veteran commander wrote that “the forward positioning of capable ground forces elevates the cost of aggression to a level that the aggressor is unwilling to pay and prevents the aggressor from doing what Russia has in Ukraine — posing to the international community a fait accompli and then portraying its reactions as escalatory.”⁶

This combined arms positioning consequently offers both risk and reward for the NATO coalition as it projects forces into once unthinkable arenas. While the Russian government will not openly assault American capital assets lest they provoke a major conflict, hybrid attacks or non-state interference will likewise fail to achieve meaningful impact so long as partnered forces avoid compromising exposure in peacekeeping operations. Though no operation is ultimately predictable — and it is possible that Moscow will respond by socially, economically, and politically destabilizing partnered nations by inciting ethnic Russians or other disaffected populations — Atlantic Resolve is emerging as the most serious, but scalable, option for facilitating Western military involvement without provoking kinetic confrontation.

America’s leading role in NATO’s plan to establish contingents across Eastern Europe contains additional nuance. By dispersing only limited U.S. forces with relatively small “activity sets,” European host nations and Western contributors are compelled to contribute significant ground units to each coalition task force instead of relying on American largess. Never intended to match the much larger Russian army tank-for-tank or threaten massive invasion, the concept allows an economized and invested alliance to physically and physiologically secure territory in a chess match of strategic posturing. By proactively occupying ground, just as Russia did with Crimea, allied forward positioning severely limits opposing military options without risking expensive escalation with all of the involved nations.

Despite the United States’ laudable decision to place coalition detachments across Eastern Europe on a rotational basis, the current operation may prove only an initial step

Soldiers with the 4th Squadron, 2nd Cavalry Regiment maneuver their M1126 Stryker Combat Vehicles on 13 September 2015 during Dragoon Crossing, a tactical road march that started out at Rose Barracks, Germany, continued through the Czech Republic and the Slovak Republic, and ended in Hungary.

Photo by SGT William A. Tanner



towards countering the Russian challenge. If interference in Ukraine continues, further action may be warranted and justified. To that end, the United States should consider a highly visible and publicized return of permanent mechanized forces to Europe. At a minimum, this should include re-stationing a full division headquarters and an armored brigade combat team of approximately 4,500 Soldiers and heavy equipment in Germany. Resourced to “execute operations with shock and speed” while providing “tremendous striking power,” as defined by FM 3-90.6, *Brigade Combat Team*, the ABCT’s complement of mechanized infantry, main battle tanks, self-propelled artillery, heavy cavalry, and tracked engineers make it the premier forcible entry formation for joint forces in potential major combat operations in Europe.

This type of enduring deployment to a forward theater would incur both controversy and applause. While the decision would markedly increase fiscal costs and compel difficult domestic political choices when choosing which Army post in the United States would produce the required structure, the potential arrival of units like the 1st Infantry Division, 1st Armored Division, and 3rd Infantry Division — storied commands who famously defended Europe during

the Cold War — would offer both practical and nostalgic appeal. Similar to deterrent effects won by the U.S. Army’s long-term, if slowly dwindling, commitment of permanent forces in the Republic of Korea, this partnership would reflect a normative and historically successful option in American foreign policy.

While stationing heavier forces in Germany offers a familiar and proven approach, it still may not be enough. If Russian belligerence continues, America and NATO should consider the heretofore unthinkable: the establishment of a larger and semi-permanent joint combined arms task force in Poland under legally sanctioned status. While such a force would inevitably be centered on combined arms battalions of mechanized infantry and tanks with unmatched capacity for mobile protected firepower, it would also include, in order to possess maximal combined arms potential, task-organized lighter infantry, special operations forces, and attack aviation assets.

This forward positioning, which would complement smaller rotational NATO contingents along Moscow’s periphery, would enable a highly mobile and potent allied force to foster

enhanced partnership with a sovereign ally in acute proximity to Russian territory. More importantly, the logistical footprint required to support a robust combat unit with their uniquely diverse armament of Infantrymen and heavy weaponry would facilitate, and telegraph, the possibility of follow-on NATO forces should further involvement or scalable strategic maneuvering be required. Despite these implications, the presence of a brigade-sized task force would not threaten territorial invasion of Russia and thus communicate only defensive intentions.

A robust and enduring partnership between American and Polish armies would also yield immediate political dividends. The establishment of a long-term Status of Forces Agreement — along with coalition training and wargames — would unmistakably signal America's commitment to defending allies in Europe. Representing high-stakes geopolitical brinksmanship, the move would compel Russia to choose between suffering an uncomfortable NATO build-up near their borders, halting, or at least lessening, its interference in Ukraine and elsewhere, or resorting to highly problematic escalatory measures. Were the Russians to cease provocations, the United States could then simply announce an eventual staged withdrawal to reward desirable behavior.

Positioning robust and permanent American combined arms forces in Poland would finally capture acute historical significance. For Russians with long memories, Poland represents the pathway that German invaders marched through with panzer corps to nearly annihilate their nation. For Poles who remember the brutality of Nazi and Soviet occupation during the Second World War, resolute reinforcement by the U.S. military would conversely provide strategic reassurance. If the former nation could not abide a robust U.S. Army presence in such emotionally significant territory, the latter democracy would certainly welcome it.

Whether pursuing the planned rotational system or more substantial and long-term posturing, America must respond to the Russian threat decisively. As famously declared by Supreme Allied Commander of Europe and later President Dwight D. Eisenhower, "the hand of the aggressor is stayed by strength — and strength alone."⁷ Russia proved the truth of this axiom in 2014 when it forcefully seized Crimea and continues to prove it as it fosters proxy wars in Ukraine and Syria. Given such belligerence, America should continue Atlantic Resolve but be prepared to complement allied political and economic isolation of Moscow with a larger, permanent, and symbolic military presence in Germany or even near Warsaw. If Russia chooses to destabilize European borders, let them find NATO fighting vehicles and riflemen resolutely overwatching theirs. For the United States and the free world, armored combined arms task forces offer the only message that will deter the aggressor.

Notes

¹ TRADOC Pamphlet 525-3-1, *The U.S. Army Operating Concept: Win in a Complex World*, 31 October 2014, iii.

² Joe Gould, "U.S. Army Official: Atlantic Resolve May



Photo by SSG Michael Behlin

An Infantryman with the 3rd Battalion, 69th Armor Regiment, 1st Armor Brigade Combat Team, 3rd Infantry Division, provides security while his squad moves into their fighting positions while conducting battle drills at Pabrade Training Area, Lithuania, on 2 December 2015.

Expand," *Defense News*, 4 March 2015.

³ FM 3-90.6, *Brigade Combat Team*, September 2010, 1-9.

⁴ TRADOC Pam 525-3-1, 18.

⁵ *Ibid.*, 23.

⁶ H.R. McMaster, "Continuity and Change: The Army Operating Concept and Clear Thinking About Future War," *Military Review*, March-April 2015, 14-15.

⁷ Monument, Eisenhower Hall, U.S. Military Academy at West Point, N.Y.

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Editor's Note: As with all *Infantry Magazine* articles, the views expressed in this article are those of the author and do not reflect the position of the Department of Defense or any element of it.

CF-SOF INTEGRATION:

A PLATOON LEADER'S EXPERIENCES DURING VILLAGE STABILITY OPS

CPT RYAN B. CROSS

The successful integration of conventional forces (CF) with Special Operations Forces (SOF) units requires mutual respect, a shared understanding of each other's capabilities and limitations, and most importantly trust. While trust is vital to building a cohesive team, it is oftentimes the most difficult to achieve. Each unit brings a different level of experience and personality to the mission, and it becomes a leadership challenge to ensure these differences complement each other instead of create conflict. I was fortunate to experience just such a relationship while deployed to Afghanistan, which resulted in not only mission accomplishment but also in deterring what could have been a major green-on-blue incident.

In January 2014, I was deployed to Ghazni Province, Afghanistan, in support of Operation Enduring Freedom, serving as an Infantry rifle platoon leader assigned to Able Company, 1st Battalion, 41st Infantry Regiment, 3rd Brigade Combat Team, 1st Armored Division. My company's mission was to support U.S. Army Special Forces (SF) village stability operations (VSO) in Regional Command East. We had received this mission in the fall of 2013 and spent our rotation at the National Training Center at Fort Irwin, Calif., learning about VSO and how to integrate with SF teams.

The VSO mission was based on counterinsurgency doctrine, and many top officials believed this method would break the Taliban and bring stability to Afghanistan. The basic premise of VSO is to place U.S. forces, primarily SOF, into districts and villages where they live with the indigenous populations, thus bringing order and stability while routing insurgent forces. "VSO was designed to build the country from the bottom up. SF Soldiers realized that Afghanistan, in particular, has a very disjointed, village-centered government that has little trust in interaction with government at the national level," explained the commander of the operational detachment alpha (ODA) my platoon worked with during our deployment.

Following our battalion's NTC rotation, Able Company reorganized into four line platoons to better support our upcoming mission. Each platoon consisted of three cross functional teams (CFTs), with each CFT consisting of a standard line squad with an added machine-gun team, medic, forward observer, and mortarman. Some CFTs also included a mechanic or cook depending on operational requirements.



Map — Ab Band District in Ghazni Province, Afghanistan

The theory was that these squads could be detached from the platoon and assigned to SF teams as needed. Many of the Soldiers in these CFTs would be needed to serve in non-traditional Infantry roles, and much cross training was necessary once we were on the ground.

In November 2013, I became platoon leader of 4th Platoon, the newly created platoon, and was given the task of building a cohesive team in less than two months before we were scheduled to deploy. Thankfully, my leadership allowed me to have a good deal of input when selecting Soldiers to fill the platoon's ranks, most importantly my platoon sergeant and squad leaders. Holiday block leave was fast approaching, and we had precious little time to ensure we were combat ready.

I had requested an NCO who had been a weapon's squad leader in a sister platoon in my former company as my platoon sergeant. Although he was only a staff sergeant, his experience, knowledge, and work ethic overshadowed those senior to him. As for squad leaders, I was able to pick the two best NCOs from my former platoon and a third, a staff sergeant from the same sister platoon. It took two weeks, but we were finally able to solidify our platoon and prepare for the task ahead. In December, I learned that my platoon was assigned to an ODA operating out of District Stability Platform (DSP) Ab Band, Ab Band District, Ghazni Province.

We arrived at Bagram Airfield in late January 2014, where we inprocessed and received more details about our mission.

We anxiously awaited orders to DSP Ab Band. A week after arriving, we left Bagram and flew to DSP Ab Band where we linked up with our ODA counterparts. The platoon sergeant and I met with the team's commander and acting team sergeant as well as the platoon sergeant from the uplift platoon — the Infantry platoon currently supporting the ODA we were replacing. We received an orientation of the camp and were brought up to speed on current operations.

Each unit brings a different level of experience and personality to the mission, and it becomes a leadership challenge to ensure these differences complement each other instead of create conflict.

Originally, the ODA had been tasked with replacing another in Logar Province with an already well-established VSO program; however, three weeks prior to deployment, its mission changed to building a VSO program from scratch in Ab Band District. This would be a difficult undertaking given that there was little coalition presence in Ab Band and hadn't been in quite some time.

"We realized we would be doing the VSO mission from scratch since the 7th Group team we were replacing had just established the DSP a month prior to our arrival," the ODA commander said. Initially, the ODA focused on securing the district by aggressively patrolling and clearing areas in South Ab Band, a historic Taliban safe haven. Because of these efforts, they had made great strides in building "white space" — territory no longer influenced by the enemy. According to the commander, the goal was to disrupt Taliban operations prior to winter to allow the team to, "build governance and development while continuing to train ALP (Afghan local police)/AUP (Afghan uniformed police) in preparation for the next fighting season."

The ODAs lived on DSPs which were, in essence, small combat outposts in proximity to district centers, ALP stations, and the villages themselves. DSP Ab Band was situated near the Ab Band District Center, the AUP station, and the Afghan National Army Special Forces (ANASF) compound. The DSP also helped protect the Highway 1 corridor.

Throughout the winter and spring, my platoon worked closely with the ODA and served as drivers, gunners, and security personnel on all patrols. In addition to serving in combat roles, we were also required to perform many of the sustainment functions for the DSP, such as improving the force protection infrastructure, generator maintenance, and heavy machinery operation during aerial resupply drops. We even had one Soldier serve as the camp cook for a while.

Aside from villages near the DSP, Ab Band District and the surrounding area proved to be highly kinetic, and we were regularly involved in firefights and encountered varying improvised explosive devices (IEDs). The efforts of the ODA and 4th Platoon were focused on continuing to create white space while simultaneously training Afghan forces and helping to improve security for the upcoming presidential elections.

Our Afghan partner forces consisted of the ANASF, ALP,

and AUP. The ANASF soldiers occupied a former medical clinic outside of and across the road from the DSP and carried M4s, M249 Squad Automatic Weapons (SAWs), M240Bs, and an assortment of other American weapons. They also had two light duty pick-up trucks and two high mobility multipurpose wheeled vehicles (HMMWVs). The ALP occupied several checkpoints throughout the district. The ALP force in Ab Band consisted of about 50 members who carried AK-47s and PKM light machine guns and had several pickup trucks. Finally, the AUP

had about 100 members spread between the district center and a checkpoint on Highway 1. Like the ALP, they carried AK47s, PKM machine guns, and several RPG-7s. They also had several pick-up trucks.

Although we were actively engaged in the VSO mission, it was no secret that DSP Ab Band would be closing soon. The current plan was for an incoming ODA to relieve the current ODA in Ab Band with the sole purpose of closing the camp and retrograding to FOB Ghazni. The political climate, combined with the fact that U.S. forces were leaving Ab Band District, began to create an atmosphere of unease between the Afghan forces and ourselves.

In early March, our partner ANASF team was replaced by another team. At first, its soldiers seemed eager to patrol and take the lead on operations. However, this quickly changed, and they became uncooperative and apathetic. We began receiving reports that they were bullying local shop keepers and even extorting them for money and goods. It was at this time that the ODA commander decided to request a counterintelligence contractor to fly to DSP Ab Band and polygraph the entire ANASF team. The test results showed that at least three Afghan soldiers, including the commander, failed when asked questions regarding whether they were sympathetic to or working with the Taliban. The ODA decided to start distancing us from the ANASF team while also ramping up retrograde operations and accelerating the base closure timeline.

In early April, I was working in the tactical operation center while a patrol was out to a village in our AO. Recently, we had coordinated with some village elders to continue construction on a school that was to be built adjacent to the district center and across the road from the ANASF compound. While the patrol was out, villagers were continuing work on the school. Around mid-afternoon, we observed a commotion on a surveillance camera at the school between the villagers and the ANASF soldiers. Two members of the ODA, including the team sergeant, went out to investigate. The AUP had also gone out to confront the ANASF soldiers, and there was a tense standoff and verbal altercation that took place between the two Afghan forces. When the team sergeant arrived, he asked the group what was going on. The elders stated that the ANASF soldiers were in the process of taking

the construction materials from them, claiming ownership.

It was at this time that my only squad leader not on patrol began positioning the Soldiers we had left in increased force protection. One Soldier was put in the guard tower with the best view of the situation to provide overwatch.

“After getting a radio check with the TOC, 1LT Cross directed me to watch over the team sergeant for the ODA we were supporting. I saw him to my right, just outside our gate, standing next to the Afghan Local Police and Afghan National Army Special Forces commanders. It looked like there was a pretty heated discussion going on,” he said.

The ODA team sergeant attempted to diffuse the situation, but one of the AUP soldiers drew his weapon. Thankfully, everyone remained calm and no shots were fired. Following the verbal altercation between the ANASF and AUP, both sides, in an effort to prove machismo, took up an aggressive defensive posture, establishing fighting positions with weapons aimed at one another.

Three of my Soldiers continued to watch as the entire situation unfolded. “I continued to pull security when I saw the ANASF soldiers come out of their compound, dressed in ‘full battle rattle’ and dragging every weapon system they had out with them,” one said. “The AUP saw this and responded by bringing out every RPG and PKM they had and lining the roof with men.”

The situation remained tense for roughly an hour, and given that we only had a squad-sized element left at the DSP, we decided it was best to continue to perform base defense procedures until the patrol returned.

Upon the patrol’s return, the ODA commander determined something had to be done to prevent future incidents. With the approval of the SOTF commander, he decided that the

ANASF team commander and team sergeant would be relieved of their positions and new leadership put in place. The next day, the SOTF-SE commander, along with the ANASF’s higher headquarters’ commander, flew to DSP Ab Band to replace the leadership. This action, however, only exacerbated an already tense relationship.

“The catalyst for tension was when I fired the ANASF ODA team leader and team sergeant... the ANASF ODA did not think I had the power and rapport with my chain of command to get them removed when they failed to do their job,” said the ODA commander, reflecting on the situation.

Shortly after the ANASF change of command, we received the order that the DSP would not be handed over to another U.S. ODA as initially planned, but, rather, we would close the site within a month. We switched our focus to retrograde operations and continued to pack non-mission critical systems. Over the next couple of weeks, convoys from FOB Ghazni and FOB Shank, as well as a day of dedicated CH-47 lift support, arrived to remove equipment. Our partner forces understood the situation and that the days of American logistical support were almost at an end. The ODA commander remembers the ANASF soldiers’ reaction to the imminent closure of the DSP: “Once we broke the news to the ANASF, they immediately went into, ‘how can I make a profit off this closure’ mode. They asked me for fuel, trucks, TVs, video games, and anything else they could sell. My answer to all of those things was ‘no.’”

By early April, most of the equipment had left DSP Ab Band. We planned to turn the little equipment that was left over to the AUP along with control of the DSP. The commander from the Afghan Army kandak operating in our AO had coordinated for a civilian fuel truck driver to come get the remaining fuel. The driver arrived in the morning and loaded his truck. While he was leaving the DSP, the ANASF stopped him outside of their compound and demanded a “tax” for him to leave. The truck driver refused and returned to the DSP. We were furious over the situation and agreed to escort the truck driver to the highway. I provided a squad of my Soldiers to serve as drivers and security while my platoon sergeant and I stayed to command and control the rest of our platoon and organize defense of the DSP. The truck driver was escorted to the highway; however, the ANASF team followed in their trucks to try and stop the fueler.

Once at the highway intersection, the ODA commander stopped the patrol providing escort, dismounted, and tried to talk to the ANASF soldiers and ask about the situation. It was at this time that an ANASF soldier pulled out an RPG and took aim at the ODA team leader. Out of reflex, one of my squad leaders, who was in the lead truck, raised his weapon to engage the RPG-wielding ANASF soldier but made the quick-thinking decision not to fire, which would have surely ended in an untold number of U.S. and Afghan casualties. The dismounted U.S. Soldiers were able to quickly get back into their vehicles and return to the DSP.

Prior to the patrol’s return, we went to 100 percent security



Photo by SGT Daniel Chapman

Soldiers from 4th Platoon, Able Company, 1-41 IN, take up positions along the wall of their combat outpost.

and base defense posture. We manned all guard towers and walls preparing for an imminent attack. Our Air Force combat controller immediately began coordinating for air support, and it was not long before we had two A-10s circling over head. The ANASF had returned and were also taking defensive positions with weapons oriented towards the DSP.

“All four towers were manned, and all remaining personnel who were not critical to TOC operations took positions along our perimeter wall,” one Soldier said. “Squad leaders were moving around the inner perimeter checking positions, the 11Cs were setting up their 60mm mortars; this was accomplished with remarkable proficiency, and we were ready to defend or deter an attack within a matter of seconds.”

Roughly an hour went by and the situation was just as tense as when it had started. The ANASF soldiers maintained an aggressive posture and would even point weapons in our direction. The ODA commander ordered that if one more ANASF weapon was pointed at us, we were to engage. Our combat controller had the A-10s conduct a show of force, flying as low as they could over the ANASF compound to deter them from making a decision they would regret. “Security and safety of all U.S. personnel was my main concern after this incident. That is the reason we immediately called in close air support and went to 100 percent security,” the ODA commander said.

The Afghans slowly backed down and retreated inside to their compound. The Afghan kandak commander was alerted to the situation and, after several tense hours, arrived on scene to remove the ANASF team and leave his soldiers

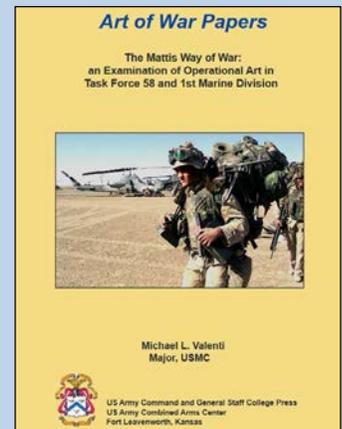
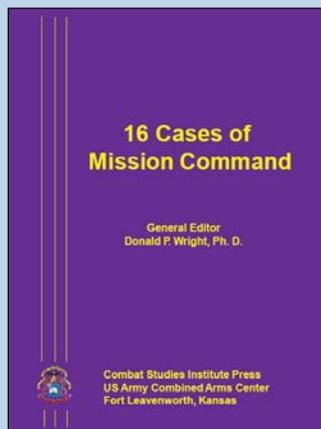
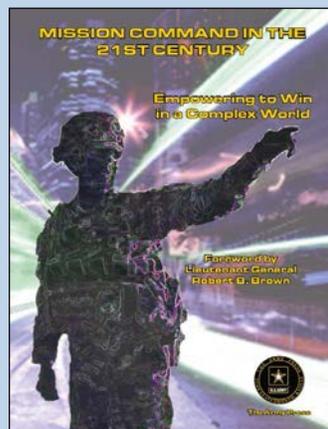
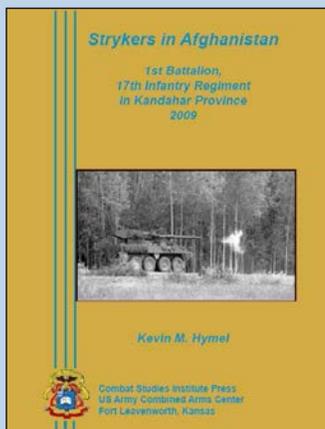
to secure the compound. We remained at high alert for the rest of the night while air support circled over head.

The commander of the Combined Joint Special Operations Task Force ordered DSP Ab Band to be closed the next day. The next day, an American convoy came to retrieve the last of our equipment. The DSP was signed over to the AUP, and the doors were shut.

Although this was an extremely tense and volatile situation, we were able to remain calm and avoid what would have certainly been an awful green-on-blue incident which would have had major negative consequences for the U.S. mission in Afghanistan. However, we received the support we needed from higher echelons which understood the severity of the situation and acted decisively. In retrospect, the ODA commander believed that DSP Ab Band was a success. He said, “Bottom line is that no one on either side was hurt or killed. This situation did not become a national storyboard of a disaster. Actually, it was hailed as a successful way to deal with a bad situation... There is a time for killing and a time to show restraint. Acting out against the ANASF in that situation would have been a good tactical decision. It would have been a colossal failure strategically for both countries.”

At the time this article was written, **CPT Ryan B. Cross** was attending the Maneuver Captain’s Career Course at Fort Benning, Ga. He has served as an Infantry platoon leader in Charlie and Able Company, 1-41 IN, 3-1 AD as well as the executive officer for Foxtrot Company, 2nd Battalion, 54th Infantry Regiment, 199th Infantry Training Brigade. CPT Cross is a 2010 graduate of Norwich University where he earned a bachelor’s degree in political science.

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RISING TO THE CHALLENGES OF CREATING A READY ARMY

*AN INTERVIEW WITH LTG GUSTAVE F. PERNA,
U.S. ARMY DEPUTY CHIEF OF STAFF FOR LOGISTICS, G-4*

Editor's Note: *LTG Gustave (Gus) F. Perna, a 32-year Army veteran who began his career as an Infantry officer before transferring to the Ordnance Branch, has served as the Army's senior logistician for the last two years.*

He is focused on creating an expeditionary logistics force that can go anywhere with no notice. LTG Perna recently spoke with us about what this means to Infantry Soldiers and the importance of property accountability; he also offered leadership advice for new commanders.

Given the Chief of Staff of the Army's (GEN Mark A. Milley's) priority on readiness, how are you focusing your efforts?

Our job is, first, to focus on readiness today, and we have a lot to keep us busy — with Iraq, Afghanistan, Europe, and Korea. Our job at the Pentagon also is to look ahead — 10, 20, 30 years out. My view is that as hard as the last decade has been, when we were fighting two wars, the next 10 years will be even harder. I say that because Army resources will continue to decline, but enemy threats and uncertainty have not gone away.

No one, logistician or otherwise, knows for sure which theater will require our next major use of ground forces in combat. Secretary (Robert) Gates used to say that when it comes to predicting the nature and location of our next military engagements, our record is perfect: we have never once gotten it right! That is why we need to be trained, ready, and equipped to set theaters and get us to the next fight, no matter where the mission is. We have to be able to execute all requirements necessary to get us from fort to port, port to port, port to foxhole, and beyond.

When forces deploy rapidly, it is often at the expense of property accountability. How can leaders mitigate this risk while maintaining a high operations tempo (OPTEMPO)?

It can be done. If leaders have the right systems and processes in place, if they have established standards, and if they exercise them in garrison and training deployments, they will be able to maintain property accountability. It is those organizations who have not taken these steps that get into combat and become flustered. For those organizations, the first things that go out the door are things like property accountability and equipment maintenance.

I am dumbfounded by this thought process, because those



Photo by David Vergun

LTG Gustave F. Perna delivers opening remarks for the Association of the United States Army's Institute of Land Warfare-sponsored Hot Topics: "Strategic Sustainment for a Globally Responsive and Regionally Engaged Army," in Arlington, Va., on 3 June 2015.

units are betting that the supply chain will be able to save them. Quite frankly, my worst fear is decisive action against an enemy that has an equal capability to ours. Not greater capability — I don't think anybody has greater capability — but comparable air capability and artillery capability. Things will be destroyed. Things will be lost in combat. We need to have accountability of our property; otherwise it won't be there. The supply system won't be able to just beam things to you.

What are your thoughts on property accountability over the past decade?

My personal thoughts are that our skills have atrophied — and it is not the fault of the Soldiers or our young leaders. It is a combination of many things. It is a result of our high OPTEMPO with two wars and a process that limited what types of organizations we brought into the wars. We brought in contractors to execute property accountability, taking the responsibility away from our leaders and Soldiers. Now we are trying to regain those skills. It starts with leaders, and it's going to have to permeate through the whole formation, but

it will really take a mindset and culture change.

In terms of property accountability, what can maneuver commanders do to internalize GEN Milley's number one priority of readiness?

First and foremost, everybody in the formation must understand property accountability is important. Again, it starts with leadership. People do what the commander checks, right? Well, leaders must hold people responsible for their property.

Commanders can do simple things like putting operators' names back on vehicle windshields so Soldiers take ownership. They can visit companies and have Soldiers demonstrate how they execute property accountability. They can have Soldiers back brief them on their hand receipts and demonstrate how they manage their inventories. They can spot check Soldiers and NCOs. Commanders need to visit them in their work areas and ask them, "How do you account for your property?"

When it comes time for FLIPLs (Financial Liability Investigations of Property Loss), people have to clearly understand your standards. If FLIPLs are treated nonchalantly — 'I will just write that off' or 'don't worry about it' — and there's no impact related to performance evaluations or financial responsibility, then property accountability will be taken lightly. But if people understand your standards, that you will enforce them, that you will check them, and that you will hold people accountable, then property accountability will become important to those who work for you.

Here is the correlation to GEN Milley's number one priority on readiness: you are responsible for ensuring your unit is ready to go when you get the call. The Army is not going to be able to fill your shortages because you failed to execute to standard. You must understand what you are short. You must report and hold the system accountable for filling those shortages. But you can't do that in an organization that has poor standards and lacks discipline in supply accountability.

Can you share some things that worked for you at the company, battalion, and brigade levels for property accountability?

Leaders must set the standards and the conditions. They must provide vision, time, and resources, and must assess the risk for things that are done or not done. But first and foremost, they must clearly define their vision — in this case, their vision for property accountability. Then they must ensure time is allocated to do what they are telling subordinates to do.

So how do you do that? You make sure that systems and



routines are established on the calendar. You make sure that key standards-related events are highlighted on training calendars. You make sure that leaders are looking for output or metrics in their meetings.

Supply accountability can be done at motor stables; at company, battalion, and brigade maintenance meetings; at division maintenance meetings. It can be done at battalion, brigade, and division training briefs. There are many times that you can assess metrics for supply accountability, and you need to make sure that you take advantage of all of those.

An additional key is mission command. How are you tracking as a commander to ensure it is being done? What processes have you put in place to allow you to validate it?

For example, when I was a brigade commander, I spent an entire day with each company commander. I did this

both in garrison and in combat zones. We would do several things. One, we would eat breakfast together so we would just have a casual conversation. It lessened some of the younger officers' anxiety.

Then, we would go check Soldier living areas together. The first sergeant would meet us — the company commander and me. I could assess several things. Did the commander understand where the Soldiers were living? Did he or she know what was going on with hygiene? With laundry? But more importantly, did he or she truly have an appreciation for the property they were responsible for in the barracks?

Now some will push back and tell me that we don't have to account for that property anymore. And I say they are wrong. It is government property. Your Soldiers are living there. And it is your responsibility.

Next, I would take them into their orderly room. We would go over training calendars and assess the way he or she was executing from an administrative perspective. I would check the way they were accounting for their ability to execute missions. What records were being kept? How were they maintaining proficiency in administrative ways?

I would check the way they were doing training — how were the training calendars? How were they determining training? Were they annotating the right things on training calendars?

The next step was to check their standards for maintenance. I would have him or her go over the O26 report. And if they didn't understand how to read that important report, that was an indicator. I would have them go over their supply hand receipts with me. We would check dates. We would check leaders. I would make them validate that the leaders were

still in the unit. So we would go through the fundamentals. And that allowed me to understand their capabilities from an administrative perspective, which I consider one of the five focus areas of unit leadership. The other four are: mission, maintenance, training, and supply.

Finally, we would go to the motor pool. We would walk around with the motor sergeant, and at the time, the SAMS [Standard Army Maintenance System] clerk. We would walk the line and look at the equipment. Then we would have a discussion about processes. What is the standard for ordering parts? What is the standard for maintaining accountability of equipment? What is the standard for tracking and inventorying tools?

Basically, it was a mission command event. I did this in both battalion and brigade command. I think it was absolutely essential for coaching, teaching, mentoring, training, and holding people accountable. They knew I thought it was important. I didn't stand in front of a formation and say maintenance is important, or supply accountability is important. I demonstrated the importance.

What would happen if you found property was missing?

First, when we found out that property was missing, the company commander had to personally come tell me. That information couldn't be sent to me by email, although in combat I made an exception and allowed phone call reports. But in garrison, they had to personally come tell me that they had identified a loss and they had to tell me what they were doing to account for the loss. First reports were always acceptable, and I never got excited about it, but they were going to tell me directly.

Second, I made the company commander responsible for the narrative on the FLIPL. They weren't allowed to just say property was lost, here is how much it cost, sign their name, and expect some investigating officer to figure it out. The company commander was responsible for doing the research and putting it on paper. And they had to come brief me on their research.

Leaders must set the standards and the conditions. They must provide vision, time, and resources, and must assess the risk for things that are done or not done. But first and foremost, they must clearly define their vision — in this case, their vision for property accountability. Then they must ensure time is allocated to do what they are telling subordinates to do.

Then the FLIPL officer had to take the facts as presented and make an assessment based on Army regulations. He or she would have it checked by the lawyers and then presented to me. I would make the final determination. So it's important to understand the process and execute it and work your way through it.

I only gave people 14 days to execute a FLIPL — because, like units today, we got busy, we were in the field, we were doing a lot of things, and I did not want them to think the FLIPL was not important. If the FLIPL officer got to 14 days and had not outbriefed me yet, then he or she would immediately have to start wearing the Army Service Uniform (ASU). So on Day 15, he or she would show up in my office in the ASUs to present the information to me. The officer had no choice. Everybody knew what was going on. They were not allowed to come out of the ASUs until the FLIPL was done.

Did that help expedite things?

Absolutely. Again, you want to demonstrate to everybody that this is important to you. You want the whole brigade or battalion to understand. It wasn't out of ridiculing people, it was just things I did to make my point that property accountability is important.

Maneuver units are currently being fielded Global Combat Support System-Army (GCSS-Army). How can they leverage GCSS-Army to improve property accountability?

GCSS-Army is a game changer that will help not only logisticians but the entire Army. It will provide more visibility for commanders. They will be able to clearly understand where all of their property is, where it has been assigned, when it is due in, and what are the statuses of their requisitions.

Any final thoughts on property accountability?

Yes, it is commander's business. Period. End of discussion. Make it your business. Set the systems and routines in place. Hold people accountable to a high standard and it will serve you well.



U.S. Army photo

Soldiers from the 1st Cavalry Sustainment Brigade brief LTG Gustave F. Perna.

BCT 2020 LOGISTICS: *WHERE THE RUBBER MEETS THE ROAD*

CPT BRIDGET I. DAY

Gone are the days of a robust, fully mission capable forward support company (FSC) that can provide extensive support to a maneuver battalion. The Brigade Combat Team (BCT) 2020 initiative modified the Army's overall strength and structure to meet future requirements and missions, but unfortunately, the modifications included significant reductions to the FSC.

Under the BCT 2020 organizational structure, assets such as an additional maneuver battalion and a brigade engineer battalion were added to the brigade to increase its autonomy and meet future requirements. These changes affected both maneuver units and logistics capabilities within BCTs.

Changes to FSCs

The BCT 2020 sustainment structure is intended to provide globally responsive sustainment that is relevant, affordable, and synchronized. But the structural changes affected FSCs by decreasing or completely removing a number of its capabilities, such as troop transportation, distribution, maintenance, and welding.

The brigade support battalion (BSB) also experienced an overall reduction in its capability set, while the sustainment brigade and echelons-above-brigade (EAB) units saw an increase in their capabilities. Many of the FSC's capabilities were passed back to the BSB and the sustainment brigade. The new support structure is designed so that the FSC depends on reachback support to meet the supported unit's requirements.

In an FSC, which is the heart of tactical logistics and where the rubber meets the road, the BCT 2020 sustainment structure has missed its mark. For the past 10 years, logisticians at the tactical level have taken great pride in being self-sufficient and had the necessary capabilities at their disposal. BCT 2020 has changed this paradigm and forces FSCs to rely heavily on BSBs and EAB units to support their missions. However, as Peter Drucker famously said, "culture eats strategy for breakfast." The "we can do it all" culture at the FSC tactical level and the precedent of allowing the FSC to be self-sufficient at the BSB and sustainment brigade levels have made the implementation of BCT 2020 nearly impossible.

The BCT 2020 modified table of organization and equipment (MTOE) should be changed to be based on the tactical application and existing culture of FSCs. The BCT 2020 concept of support, which increases the number of personnel at EAB and reduces it in the FSC, hinders the maneuver unit. BCT 2020 is neither effective nor efficient.

In an FSC, which is the heart of tactical logistics and where the rubber meets the road, the BCT 2020 sustainment structure has missed its mark. For the past 10 years, logisticians at the tactical level have taken great pride in being self-sufficient and had the necessary capabilities at their disposal.

Juliet Company

The 1st BCT, 82nd Airborne Division was one of the first brigades to transition to this new structure. The brigade's Juliet Company, 2nd Battalion, 501st Parachute Infantry Regiment (PIR), is an FSC that was restructured under the BCT 2020 model.

Juliet Company supported two Joint Readiness Training Center (JRTC) rotations, multiple joint forcible-entry exercises, and platoon, company, and battalion live-fire exercises. It also supported an outload support battalion for the global response force and a U.S. European Command exercise.

The recent training exercises that Juliet Company supported demonstrate that the rationale behind the concept of support of BCT 2020 can be disputed and is arguably more detrimental than successful. Ideally, the FSC MTOE should be adjusted to meet transportation, fuel, water, security, maintenance, and communication requirements in both garrison and tactical environments.

Distribution Platoon Problems

The MTOE changes that were implemented because of BCT 2020 caused personnel problems in the FSC. The number of personnel in an FSC's distribution platoon was cut to one-third of its original strength. In the BCT 2020 MTOE, the Class III (petroleum, oils, and lubricants), general supply, Class V (ammunition), and truck squads no longer exist. What is left is essentially two squads consisting of a total of 14 personnel of various military occupational specialties (MOS).

The 2nd Battalion, 501st Infantry Regiment, training missions required a great deal of sustainment support. For instance, to train for the requirements that it was tasked to execute, the battalion used a brigade's worth of ammunition in just eight months. In all, Juliet Company supported more than 100 ammunition draws and turn-ins with only one ammunition specialist (MOS 89B), over 200 transportation missions with only eight motor transport operators (MOS 88M), and more

than 50 fuel and water missions with only four petroleum supply specialists (MOS 92F) and no water purification specialists.

Although the support missions were met successfully, the lack of personnel did not enable proper rest cycles or the ability to multitask and support multiple missions at once. The increased safety of not having as many transportation assets on the road was one of the purported benefits of the BCT 2020 structure. However, the FSC conducted the same number of transportation missions as before but with far fewer personnel and while experiencing rest cycles that were inadequate for 24-hour operations. These conditions increased risk.

The 2nd Battalion and Juliet Company made several modifications to support the significant logistics requirements. The battalion's leaders understood that forward support personnel should be the last to be tasked with non-MOS-specific duties, such as traffic control point guards, so they instead gave these duties to Infantrymen.

A second modification that the battalion made was assigning Infantry Soldiers to augment the distribution platoon. The FSC had as many as seven 11Bs at a time augmenting the platoon. At first this seemed like a great solution to the personnel shortage, but it ended up creating a different set of issues. The biggest issue was that the 11B personnel did not join the Army to be truck drivers. Many of the 11Bs in the FSC formation loved being Infantrymen and did not wish to be in an FSC. These personnel were forced to do a job they did not sign up for, and the FSC leaders had the added challenge of motivating them to fill support positions and watch their peers from the sidelines.

BCT 2020 forces units to modify the structures set by their MTOEs in order to accomplish their missions. FSC distribution platoons will inadvertently change themselves back into a support and transportation platoon if they are not given the adequate support and capabilities on their MTOEs. Tactical-level requirements will not decrease, and may even increase, in the near future; therefore, the capabilities of the direct-support unit should remain constant or even increase to ensure the greatest success.

Maintenance Platoon Problems

The pre-BCT 2020 MTOE had nine more paratroopers, which may not seem like a big difference, but it is NCOs that the new MTOE lacks. Like many other units across the Army, 2-501 PIR struggles with not-mission-capable equipment and having multiple, complex maintenance deadlines. Even an experienced mechanic sometimes takes days to conduct an accurate and thorough inspection, and the maintenance team is often stretched thin with the two tasks of identifying faults and installing parts received.

Without the proper NCO leadership, it is difficult to plan a sensible preventive maintenance schedule and keep up with unscheduled services. The majority of mechanics are simply too inexperienced to conduct some of the complex repairs



Photo courtesy of author

A Soldier with Juliet Company, 2nd Battalion, 501st Infantry Regiment, works on a vehicle prior to convoy training.

that the battalion's equipment requires. Repairs often need two or three mechanics and the supervision of an NCO.

The 2nd Battalion, like many units that have transformed to BCT 2020, kept many of its unauthorized vehicles. The units are either in the process of turning in their unauthorized vehicles, which is a long and laborious process, or the unit is holding on to the vehicles to better sustain itself.

Having more vehicles than what is authorized on the MTOE creates a huge gap in maintenance capabilities versus requirements. The BCT 2020 maintenance platoon MTOE will be successful only if units strictly adhere to their authorizations, even if the additional equipment is needed to support the unit's mission.

Headquarters Problems

Before BCT 2020, an FSC's headquarters was authorized an E-6 supply sergeant as well as an E-4 supply clerk. It was also authorized an E-4 chemical biological, radiological, and nuclear (CBRN) specialist. With the BCT 2020 MTOE, the FSC is now authorized an E-5 supply sergeant and an E-4 supply clerk, despite having the largest and most complex property book in the battalion.

Additionally, the FSC is not authorized a CBRN specialist or a communications specialist. This forces FSCs to pull personnel from other sections to operate their training rooms, learn communications equipment, and oversee the CBRN equipment.

Equipment Problems

Under the BCT 2020 MTOE, an infantry battalion FSC suffers from several equipment reductions.

Transportation. FSC troop transportation assets are drastically decreased, leaving a total of only nine family of medium tactical vehicle (FMTV) trucks. The original 35 FMTVs should be maintained on the MTOE in order to support troop transportation and other distribution missions simultaneously.

Class I (subsistence). Neither the pre- nor post-BCT 2020 MTOEs had authorizations for a 2,000-gallon water tank rack (hippo), but both had authorizations for three 400-gallon water trailers (buffalos). The FSC should be authorized two hippos to allow the FSC flexibility in its support of combat trains.

Class III. The FSC fuel truck authorization decreased from two to zero; however, the FSC is still authorized four 92F Soldiers. The authorization should be increased to two fuel trucks, which again will allow the FSC flexibility in its support of combat trains.

Welding. The FSC lost its welding capability; however, no significant decrease in the FSC's ability to accomplish the mission was noted.

Vehicle recovery and combat maintenance. On the new MTOE, the wrecker authorization remained the same, while the recovery vehicle operator authorization changed from six personnel to three. The problem with the wrecker authorization is that the FSC is authorized one heavy expanded-mobility tactical truck (HEMTT) wrecker and two FMTV wreckers. The HEMTT wrecker has a 24,000-pound crane capacity and a 60,000-pound recovery winch capacity, while an FMTV wrecker has only an 11,000-pound crane capacity and a 30,000-pound recovery winch capacity. This means that the FMTV wreckers do not have the ability to recover a load handling system, a HEMTT, or any vehicle weighing more than 36,678 pounds. The FSC authorization should be changed to three HEMTT wreckers to give the wrecker teams the freedom to support multiple recovery missions and not be limited by the type of vehicle needing recovery. Adding security elements to FSCs would allow the maneuver battalion commander the freedom to employ an antitank company without having to work around the added duty of escorting resupply missions. It also adds one more security element to the battalion to assist with battalion security or casualty evacuation missions.

Other Recommendations

The FSC's lack of necessary personnel and equipment hinders its capabilities in the garrison environment and during unified land operations. During the two JRTC rotations and the multiple joint forcible-entry exercises that Juliet Company supported, it had to use the field trains command post and unit maintenance collection points to support as far forward as possible. Juliet Company did not support the battalion from the brigade support area and was sometimes a two-hour convoy away from it.

Based on these experiences, it would be beneficial and arguably crucial that FSCs have the capability to support

their battalions with three days of supply for Classes I, III, and V, as opposed to the one day of supply that BCT 2020 supports. The FSC needs the flexibility to support its battalion using the combat trains model and to deploy multiple combat maintenance teams, employ tactical convoy operations, and use logistics release points while maintaining a command post.

During unified land operations, FSC leaders play a vital tactical role. They need to understand the tactical plan, integrate themselves tactically, and provide the best logistics support. To do so, communication is vital. An FSC should be authorized the same communication equipment as the maneuver companies they support.

The greatest disservice done to FSCs is the lack of security vehicle authorizations. FSCs are authorized the heavy machine guns to arm gun trucks but have never been authorized the trucks. FSCs must conduct countless tactical convoy operations during unified land operations but must do so unsecured or with the assistance of an anti-tank company, which strains the battalion. Adding security elements to FSCs would allow the maneuver battalion commander the freedom to employ an anti-tank company without having to work around the added duty of escorting resupply missions.

This article outlines how BCT 2020 affects a light airborne infantry FSC, but these challenges are not unique to Juliet Company or other infantry FSCs; the BCT 2020 MTOE has had or will have the same effects on heavy and Stryker BCT units. In an Army that is moving toward Force 2025 and Beyond and focusing on unified land operations, we must empower our support units with the capabilities that ensure mission success. Logisticians owe supported units timely and accurate support; units cannot afford to wait for an approval process to get the support that they need to accomplish their missions.

Success in a combat arms battalion relies heavily on trust between maneuver and support. The supported unit must trust that the FSC will be there with their ammunition, water, food, and fuel. They must trust that their FSC will do whatever it takes to be in the right place at the right time with their support. The FSC has its finger on the pulse of the maneuver unit's priorities and mission. Considering the principles of logistics (responsiveness, simplicity, flexibility, economy, attainability, sustain-ability, and survivability), the FSC BCT 2020 MTOE satisfies only the principle of economy. As sustainment moves into a future of expeditionary logistics and unified land operations, the best solution is to place our resources and capabilities as far forward as possible.

CPT Bridget I. Day is currently participating in the Army Congressional Fellowship Program and is studying Legislative Affairs at George Washington University. She was the commander of Juliet Company, 2nd Battalion, 501st Infantry Regiment, 1st Brigade, 82nd Airborne Division. She holds a bachelor's degree in applied health science from Bowling Green State University of Ohio and is a graduate of the Combined Logistics Captains Career Course, Advanced Airborne School, Air Assault School, and Aerial Delivery and Materiel Officer Course.

Editor's Note: As with all *Infantry* Magazine articles, the views expressed in this article are those of the author and do not reflect the position of the Department of Defense or any element of it.

AN EXERCISE IN MISSION COMMAND: *THE PANTHER BRIGADE IN OPERATION INHERENT RESOLVE*

COL CURTIS A. BUZZARD
LTC JOHN C. WHITE
MAJ JARED N. FERGUSON

In the late summer and early fall of 2014, the world watched in shock as the Islamic State in Iraq and the Levant (ISIL — also known as Daish) attacked into Iraq from Syria and seized key terrain in Anbar and Ninewa Provinces. Much of the Iraqi army retreated, and the country appeared on the verge of collapse. In late November and early December, efforts were initiated to provide forces to assist in training and advising the Iraqi army. The 1st Infantry Division was selected to deploy its headquarters and assumed the role as the Combined Joint Forces Land Component Command – Iraq (CJFLCC-I). The 1st Brigade Combat Team (BCT), 1st Infantry Division was already deployed to Southwest Asia in support of Operation Spartan Shield and was tasked to provide elements as a temporary solution. This complex mission was evolving daily and would require an extremely adaptable force that was capable of operating in a complex, changing operating environment and able to interoperate with joint, coalition, and Special Operations Forces (SOF) as well as interagency partners.

The 3rd Brigade Combat Team (BCT) of the 82nd Airborne Division (the Panther Brigade) had recently relinquished the Global Response Force (GRF) mission — ready to deploy on no-notice anywhere and jump, fight, and win — and remained at a high level of readiness and in a “surge-ready” status. An initial request for forces (RFF) was issued for a security element in Baghdad, and elements from the brigade’s 1st Battalion, 505th Parachute Infantry Regiment (PIR) began deploying in late December 2014. A second RFF followed for another 1,000 Soldiers to train and advise the Iraqi army. The 3rd BCT, consisting of the BCT headquarters and elements of six battalions, received the mission and deployed to Iraq by the end of January 2015. Over the nine-month deployment (December 2014 through September 2015), the Panther Brigade contributed substantially to a complex mission and learned a variety of key lessons learned.

As the BCT arrived in country, they replaced a small footprint of 1st BCT, 1st ID and some elements that were in key areas around Iraq and had begun to develop necessary partnerships. Initially, the emphasis was on the build partner capacity (BPC) aspect of the mission and training the five new Iraqi army brigades formed for the Iraqi counteroffensive against Daish. The BPC was generally centralized at two



An Iraqi soldier with the 73rd Brigade, 15th Division works to improve his kneeling firing stance with a Panther Brigade Soldier at Camp Taji, Iraq, on 24 March 2015.

Photo by SGT Cody Quinn

distinct locations – the Taji Military Complex (TMC) and the Besmaya Range Complex (BRC) — while the Marines and Danish operated a BPC site at Al Asad. At the first two sites, we began setting conditions for the arrival of other coalition partners (Australia, New Zealand, and Spain), who would later take over primacy of the individual and collective training effort. Throughout the duration of the deployment, the BCT would lead or assist in the training of more than 12,000 Iraqi soldiers while also assisting with the equipping and specialty training on U.S.-specific weapons and some niche capabilities. While training was ongoing, advise and assist (A&A) teams — built around the BCT and battalion headquarters — were partnered with the Iraqi Ground Forces Command (IGFC); the Baghdad Operations Command (BOC); the Ninewa Operations Command (NOC); the 9th, 15th, and 16th Iraqi Army Divisions; and the Ministry of Peshmerga in Erbil. This also included a French A&A team that was partnered with the 6th Iraqi Army Division. The advisors quickly developed rapport with their partners; trained the staffs; assisted in planning operations; ensured our intelligence, security, and reconnaissance (ISR) and joint fires capabilities were nested appropriately; and helped them measure effects. Quite frankly, they also advised us as we gained a greater understanding of their perceptions, priorities, and challenges. The BCT also secured various critical facilities, oversaw the coalition footprint on TMC, and eventually provided a variety of enablers and sustainment support to Marine A&A teams at Al Asad and Taquaddam. In addition, the BCT maintained a headquarters in Kuwait and rotated elements to train and maintain readiness. We used the location as an “arms room for people” concept, rotating unique capabilities into and out of Iraq as needed, which established a significant intelligence reachback capability in order to stay within the force management constraints. Clearly, the BCT was executing distributed mission command in theater and back to Fort Bragg, N.C., where approximately 3,000 paratroopers remained in a surge-ready capacity.

Throughout the deployment, paratroopers and leaders at all levels — from the youngest private to the BCT commander — were challenged every day in some capacity and learned many valuable lessons. First, it is critical to have an appreciation of the operating environment because many of the lessons are driven from its complexity which will remain an enduring characteristic of this region. Many books are devoted to this area of the world, but we have attempted to briefly capture the key components.

Complexity of the Operating Environment

There is nowhere in the world more complicated right now than Iraq. One must approach the challenges in Iraq and the region holistically and factor in “great power” politics as well. There is clearly a competition for influence — first internal to Iraqi politics, secondly from its border states, and finally between great powers with respect to influence in the region. Collectively, this context must be understood with a level of nuance not always expected of paratroopers and junior leaders, and we learned this in spades throughout the deployment.

First, the Iraqis are still defining their own political solution

Throughout the deployment, paratroopers and leaders at all levels — from the youngest private to the BCT commander — were challenged every day in some capacity and learned many valuable lessons. First, it is critical to have an appreciation of the operating environment because many of the lessons are driven from its complexity which will remain an enduring characteristic of this region.

after the removal of Saddam Hussein, the U.S. military's departure, and growing relations with its neighbors. The military's influence declined after we left, and Prime Minister Nouri Maliki's consolidation of power and personnel moves across the Iraqi military were based more on political favor or influence than competency. While we were training and advising the Iraqi army, it was fundamental to understand the background of our partnered leaders — virtually everyone had a political connection and their own “Tony Soprano.” We found operations were planned and decisions of commanders were driven by politics and heavily influenced by factors outside military competency or priority. This isn't unusual as war is viewed as an extension of politics, so understanding the state of Iraqi politics — who were most influential and their agenda — became very important to us throughout the deployment. Thus, it was vital that we spent time understanding the social analysis network of key leaders and maintaining a pulse on Iraqi politics — most often through open-source media, engagements, and close cooperation with the Embassy.

Any discussion on the complexity of Iraq unfortunately must include sectarian competition and friction. After years of oppression under Saddam Hussein, the newly empowered Shia government and Shia majority exercised dominance over other factions across all facets of government, and the Sunnis felt disenfranchised. This disenfranchisement extends beyond the borders of Iraq and to some degree facilitates Daish's success because Sunnis often wonder which is better — succumbing to Daish's brutal rule or trusting a Shia government that seems unable to effectively court and integrate the Sunnis. Daish is also enabled by disaffected Baathists and former Saddamists, many of whom possess the management and leadership skills necessary to run a government and Daish's army. Thus, defeating Daish is both a political problem and a military one. Effectively reaching out to moderate Sunnis, discrediting Daish's ability to govern, and creating a truly inclusive Iraqi government are essential to success.

But, it is not simply a Sunni-Shia conflict; there's tremendous internal friction within each. Prime Minister Haider al-Abadi is a member of the Dawa Party (the same as Maliki) but is viewed as more of a centrist while being pulled by a variety of forces in Shia politics. He is largely beholden to the Arab Shia in Iraq, led by Grand Ayatollah Ali al Sistani and the marja'iyah, who are Iraqi nationalists and want to limit Iranian influence. When Daish invaded Iraq and threatened Baghdad, Sistani issued a fatwa for Shia militias in Iraq to defend their country, and

these militias have largely been effective and not associated with the perception of sectarian revenge against Sunnis. The other pull is from Persian Shia in Iran. Former Prime Minister Maliki forged strong relations with the Iranian government, and the Iranians have gained significant influence in the Iraqi government. Iranian-backed militias filled an urgent security need when Daish attacked and the Iraqi army was unprepared or unwilling to fight. These militias, which many considered terrorist organizations and responsible for U.S. deaths during Operation Iraqi Freedom, are less nationalistic, not truly under the control of Iraqi leadership, and often exacerbate tension with Sunni populations and also the Kurds. Their intentions and those of their masters clearly do not have the best interests of Iraq as their primary motivation. Prime Minister al-Abadi needs to forge good relations with neighboring countries and is reliant in the near term on these militias, but the question remains how he will control their influence once Daish is defeated. Iraq must depend on a credible national security infrastructure that reports to its leadership and not that of its neighbor.

Within the Sunni population, beholden to tribal allegiances, there is also friction. The inability of the Sunni tribes to unite within key provinces (Anbar, Saladin, and Ninewa) further hinders their ability to gain influence. They are often driven by self-preservation, parochial interests, corruption, and posturing for post-Daish influence, and they risk never seeing a secure Iraq again. This weakens their ability to gain trust with a Shia-dominant government and risks prolonging Daish's occupation in predominantly Sunni population areas. Encouraging them to speak with one voice is a key component of U.S. policy in Iraq, which is essential to defeating Daish.

Of course, we must not forget the Kurds given that Kurdistan is part of Iraq. The Kurdish population is extremely proud of their heritage and their ability to defend themselves from Daish while the Government of Iraq suffered numerous losses and high desertion rates during the fall of Mosul. The persecution of Kurds during Saddam Hussein's regime is a salient feature of Kurdish identity, so distrust persists. A majority of Kurds do not identify as Iraqi citizens and desire to create an autonomous Kurdish state. The Kurdish Regional Government (KRG) operates in several ways as a sovereign country with an elected prime minister, a pseudo-military (known as the Peshmerga but essentially a political militia), and its own flag; but there also remains tremendous discord internally. They are not in favor of a presence of Iraqi Security Forces (ISF) in the KRG, are secular, ethnically Kurd rather than Arab, and often interact with foreign countries as an independent state. Due to the ongoing conflict, the Kurds reclaimed their historical territory and expanded into traditionally Arab areas, which will inevitably be a point of contention following the defeat of Daish and liberation of Mosul.

The struggle for unity between Kurds and Iraqis is a significant obstacle in the war to defeat Daish, especially in terms of Mosul. A large part of the friction revolves around oil and ultimately money. Since Mosul is proximate to Kurdistan (approximately 85 kilometers between Mosul and Kurdistan's capital Erbil), it is essential for the Kurds and ISF to synchronize

efforts, but this is challenging given the generally deplorable history of the Iraqi army in Kurdistan during Saddam Hussein's reign. During the deployment, we played a vital role in bridging the gap between Kurds and Iraqis through our continuous engagement of Iraqi and Kurdish security forces. The brigade staff, partnered with the NOC, worked diligently to garner an agreement to support the Mosul counterattack with training bases and forward staging of equipment. One of our battalion headquarters was partnered with the Ministry of Peshmerga and worked daily to advise and assist while encouraging them to recognize the advantage of cooperating with the Iraqis. While the Kurds remained reluctant to work in a partnered capacity with the ISF, progress was slowly materializing as we departed, which is critical to the defeat of Daish and long-term security of Iraq.

The BCT also had to look beyond the borders of Iraq. Without having a basic understanding of the interests of Turkey, Iran, Saudi Arabia, Kuwait, and, of course, the ongoing conflict in Syria, it is difficult to appreciate Iraqi decision making. Furthermore, great powers are engaged overtly in competition through soft power in order to gain influence in the region. Nations such as Russia and even China, though not neighbors, are looking to influence outcomes, extend their influence, and seek economic gains. Collectively, these nations all have an impact on the political, economic, and security situation in Iraq, and attempting to understand the problem made us better advisors.

Additionally, operating in Iraq on this deployment was much different than previous ones — we were operating in a country enforcing its sovereignty and under a mission led by the U.S. Department of State (DoS). This resulted in a variety of different constraints — limitations to the number of personnel in theater, inability to operate off of forward operating bases, challenges in getting personnel and equipment into country, and limited modes of transportation. As a result, these challenges and the economy of force nature of the mission forced the BCT and its leaders to closely coordinate between various SOF, conventional forces, interagency elements, and coalition partners. The primary lesson learned is that this type of complexity is likely to be the norm in the future and reinforces the Army's emphasis on critical thinking, adaptability, and a mission command approach. It also drove many of the following lessons learned.

Preparing and Organizing for the Mission: Transforming from the GRF to Advisors in 45 Days

Upon receipt of the mission, the BCT conducted a rapid mission analysis — there were few facts and a lot of assumptions about the evolving mission. We would have to adjust from a unit focused on deploying with no-notice, seizing an airfield, establishing a lodgment, and executing decisive action to equipping, training, and advising Iraqi army soldiers and supporting ourselves in a much different Iraq. First and foremost, the BCT aggressively implemented a leader development program (LDP) that initially leveraged the Security Force Assistance Advisor Team (SFAAT) Academy, which is based at the Joint Readiness Training Center, Fort Polk, La. Their program of instruction served as an excellent

primer for advising tasks and the cultural nuances of Iraq, and provided a great start point to examine the mission. However, leaders at all levels knew the mission would require a much more in-depth and continuous analysis of the culture of both the Iraqi army and society.

As a result, BCT leaders focused leader development on a series of LPDs that they felt would have the greatest impact. COL Joel Rayburn, author of *Iraq After America* — a book that examines the Iraqi government and the sectarian and secular factions that emerged following the start of Operation Iraqi Freedom in 2003 and through the departure of U.S. forces — presented a session to key leaders. His insights on how the Iraqi political and military institutions had changed since U.S. forces departed Iraq were hugely beneficial. This session cultivated a relationship with COL Rayburn, and the BCT leveraged his connections to many experts throughout the deployment.

During the session with COL Rayburn, he was joined by someone the BCT would become intimately familiar with during the course of the deployment — Iraqi Army Major General Najim alJabouri, who at the time was working at National Defense University. Najim was born in Qayarah and served in Iraq during some of the most tumultuous times where he gained a reputation while serving as the mayor of Talafar for his ability to work closely with U.S. forces. Prime Minister al-Abadi later named Najim as the commander of the NOC, which had dissolved when Mosul fell and was chartered to plan and execute the counteroffensive. During the deployment, the BCT worked with him daily to prepare the newly formed Iraqi units. Part of any successful advising partnership depends on



Photo courtesy of authors

During its deployment, the 3rd Brigade Combat Team, 82nd Airborne Division worked daily with Major General Najim alJabouri, commander of the NOC.

personal relationships, and it was extremely helpful to have a pre-existing one with Najim and his ability to leverage a tremendous network of contacts throughout Iraq — both inside the army and across the political spectrum.

In addition, the BCT hosted experts from the Combating Terrorism Center, which is located at the U.S. Military Academy at West Point, N.Y. They shared their most updated products and information on



Photo by SSG Mary S. Katzenberger

Paratroopers assigned to the 3rd Brigade Combat Team, 82nd Airborne Division disassemble a foreign AK-47 rifle during a class at the U.S. Army's John F. Kennedy Special Warfare Center and School at Fort Bragg, N.C., on 22 January 2015.

the Islamic State and offered valuable perspectives on the retreat of Iraqi forces and politics in Baghdad. The BCT also invited the West Point Negotiation Project and executed a seminar focused on developing negotiation strategies for the BCT's leaders. Aside from a variety of professional reading, we found a valuable publication produced by our Army titled *How the Iraqi Army Operates*. It described how the Iraqi army recruited, manned, trained, and equipped, etc.; it gave insight to just about every aspect of the Iraqi army. Arguably, it was the most important reference we had. Throughout the deployment, we found that it was still largely applicable and served as a touchstone for us.

Finally, the BCT executed a mission rehearsal exercise at Fort Bragg, just weeks before deploying. This culminating training event focused on the known and likely missions the BCT would execute in country as well as addressed our combat readiness should circumstances change and we found ourselves conducting limited offensive operations. This event also served as a final validation for each of the battalions as they transformed their formations and solidified their task organizations. The SFAATs themselves were leader centric and composed of staff expertise across the warfighting functions as well as unique skill sets — prior advising experience, Arabic skills, balancing intelligence and fires across all battalions, etc. Within broad guidance, each battalion had a slightly different approach to the advising, security, and sustainment requirements for the distributed and sometimes austere locations they would occupy. This reflected our Army's mission command philosophy — all relied on the strengths of their respective units, their in-depth knowledge of their personnel, and the overall trust in the units to exercise initiative in how they approached the mission and continuously adjust or “right size” throughout the deployment as conditions changed. This agility would prove critical over time.

Adaptability

From notification of the mission throughout execution, adaptability was critical. We continually had to evaluate our assumptions and reconfirm our facts in the ever-challenging environment. The mission required problem solvers, innovative thinkers, and creativity. No region, relationship, or Iraqi unit was the same, and we couldn't treat them as if they were. Our leaders and paratroopers were well trained and masters of the basics, and we used this as the foundation from which to adapt to the mission.

As an example, our initial mission analysis bore out that we needed to ensure maximum flexibility with respect to combat capabilities, given that the mission was evolving. We established a headquarters at Camp Buehring, Kuwait, upon arrival and used our footprint there for two purposes:

(1) To facilitate training necessary for maintaining readiness given that our requirements could change; and

(2) As an "arms room for people." We positioned a variety of unique capabilities that we would deploy forward for specific purposes and time periods within the force management constraints. Capabilities included everything from unique intelligence and engineer assets, mobile training teams for short-duration equipment fielding and training, and even our chaplain and behavioral health provider.

It was necessary to make some extremely difficult decisions regarding which capabilities should be brought forward and what could be left behind. Every commander wants to have a robust intelligence capability; however, the constraints we operated under did not allow this to occur on a routine basis. The initial intelligence package at the BCT level consisted of only three personnel forward: the OIC, a senior all-source warrant officer, and one cryptologic linguist. The battalion intelligence sections were also shorthanded and usually had no more than three Soldiers at a time. To combat these shortfalls, we came up with several very creative and unique methods of gaining, developing, and sharing intelligence within our own formation and our partners. The first place we looked for a solution was through creating a reachback capability for in-depth analysis. We embedded an analyst from the National Ground Intelligence Center (NGIC) who had continued to look at Iraq after the U.S. military's departure and had a great deal of expertise for us to leverage. We also immediately stood up an analytic cell on Fort Bragg and, after discovering that Kuwait was capable of hosting our brigade intelligence support element (BISE), we quickly brought the majority of our all-source, geospatial intelligence (GEOINT), and cryptologic sections forward. Bringing those elements forward to Kuwait had the additional benefit of co-locating our analysts with the division analysis and control element (ACE) and the Operation Spartan Shield BISE. This allowed our analysts to interact directly with our higher intelligence cell and

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adjoining forces. This also allowed the Operation Spartan Shield analysts to focus on a real-world problem set, thereby increasing the analytic expertise across the force. Throughout the deployment this also enabled the BCT's intelligence section to quickly rotate forward the subject matter expert for any number of issues that arose.

A second area that facilitated our success centered on information sharing. Everyone in theater was extremely shorthanded. While collaboration is essential, it rarely occurs as freely as desired. During our deployment, every coalition

partner and task force worked diligently to ensure all information made it to the force that could best utilize it. In addition, our partnership with host nation forces allowed a very free-flowing information channel. These working relationships provided situational awareness for all commanders and increased the utility of assets across the battlefield. On numerous occasions our coalition partners provided information that directly contributed to the safety of U.S. service members, and our BCT intelligence sections worked relentlessly to ensure the safety and success of our partner and coalition forces.

As the deployment progressed, the BCT's intelligence apparatus took a specific shape in which the cell in Baghdad supported expeditionary operations and immediate response requirements. The BISE in Kuwait took responsibility for near-term projects and battle rhythm events, such as the intelligence summary and collection requirements. Finally, the reachback to Fort Bragg held the responsibility for the long-term projects such as overall atmospheric and deep dive research.

By no means was this solely a single section's effort. Rather, it was a demonstration of multiple entities across the battlefield taking a less-than-ideal situation and working together in the way that the intelligence community espouses but rarely does. Adaptability was key across the BCT, and these examples highlight just a few of the innovative approaches undertaken as part of this mission.

Interoperability

Immediately upon alert for the mission, we recognized that we would find ourselves working closely with SOF, interagency, and coalition partners at the BCT level. This requires leaders and paratroopers at all levels to build personal relationships and trust as well as ensure the technical means to communicate are available. We had paratroopers assigned to various locations serving with SOF and coalition partners in many different capacities. The economy of force nature of the mission necessitated partnering. Our paratroopers assigned to Union III had to work hand-in-hand with U.S. Marines who were tasked with the base defense of the Baghdad Embassy complex. Synchronizing efforts, understanding each other's standard operating procedures, and gaining knowledge from their



Photo courtesy of authors

A Panther Brigade leader discusses training with Spanish Legion coalition partners.

lessons learned were paramount to our success at Union III and providing overall security.

The intelligence assets available from the SOF community proved vital in our decision-making process and ability to gain greater context. They were able to provide us with a level of situational awareness and background information that we otherwise would not have had, which we then used our reachback capabilities to evolve further. Our coalition partners were also a big part of our success. They came in motivated and ready to advise and train the Iraqi forces to which they were assigned. Our paratroopers gained valuable insight to the cultural differences between militaries and immediately recognized we could still work together and actually complement each other's capabilities to accomplish the common mission.

Our biggest challenge throughout the operation was the ability to communicate classified information with our coalition partners. During the deployment, we worked side-by-side with Spanish, Australian, and New Zealand forces training the Iraqi army. Additionally, we had a French A&A team part of our task organization which was partnered with the 6th Iraqi Army Division in Baghdad. To mitigate this issue, we employed expeditionary digital liaison support teams (EDLSTs), a concept developed by the 82nd Airborne Division during its numerous multinational training events as the GRF. Though the mission was different, we provided a small package of experts (communications, intelligence, a liaison officer, and linguist where required) with the required U.S. equipment and systems to our coalition partners in order to provide them with the proper information and analysis. The requirements were minimal but unexpected at the beginning of our mission, and as they evolved over the deployment proved priceless. In the end, this mission reaffirmed that we can expect to fight in the future with

coalition partners that bring credibility to a mission along with important capabilities, so interoperable communication systems will remain a priority. Similarly, it remains clear that we will continue to find ourselves working closely with various elements of SOF. Ideally, personal relationships will already be in place with SOF, interagency, and coalition partners, but if not, we must build them quickly and in a way that positively supports the mission.

Talent Management

Perhaps the most important decision each deploying battalion had was determining who should deploy and who needed to remain at Fort Bragg and lead the surge-ready force, which was the majority of the BCT. Without question, we knew that the unit required quality leaders at all locations and we could not overload one force without hindering the other. We also realized that regardless of whether a paratrooper deployed or not, they would be asked to execute many tasks and solve many problems they were not accustomed to doing.

For those deploying, we initially looked at who had previously been part of an advisory mission or had similar experience. We also identified those who had previously deployed to Iraq, particularly on advisory teams, and may have dormant relationships with Iraqis that could be leveraged. Since the majority of our paratroopers had not deployed before and even less had previous Iraq experience, we decided to look even closer at the additional skills our paratroopers could bring to the fight. We identified those who could speak a second language, especially Arabic or Kurdish. Those who spoke Spanish or French turned out to be valuable assets when working with our coalition partners. We identified those with previous experience as an observer/coach/trainer at one of the Combat Training Centers since A&A was very similar, just doing so within a unique cultural



Photo by USAF SrA James Richardson

A linguist attached to the 2nd Battalion, 505th Parachute Infantry Regiment talks with Iraqi soldiers prior to conducting weapons qualification at Camp Taji, Iraq, on 8 March 2015.

context. We even sent some of our organic engineers to additional training to enhance their vertical engineering skills, with a focus on welding, carpentry, electrical, heating/air, and contracting. However, we eventually came to realize that our junior leaders and paratroopers all had a unique skill set, no matter their military occupational specialty (MOS) — they were able to quickly build rapport and trust with Iraqi soldiers and our coalition partners because they were well trained in the basic fundamentals of warfighting. This skill set alone carried us through the deployment and contributed to more successes than thought possible.

As previously mentioned, however, we had to leave the right level of leadership at Fort Bragg in order to continue to maintain readiness, discipline, and standards for the more than 3,000 paratroopers who would remain. Although the battalions each handled it differently, they all empowered those who remained at Fort Bragg with the necessary information and guidance to execute in the absence of continuous orders — the pure essence of mission command. The deployment allowed paratroopers at all levels to expand their own knowledge base and lead with distinction, often being responsible for tasks normally meant for those one or two levels above their pay grade.

Building Partner Capacity – How to Train, How to Fight through Equipment Challenges, and the Enduring Importance of Leadership

Upon deploying, the priority initially was the BPC mission — the mission of training new Iraqi army brigades. These brigades were newly formed for the liberation of Ninewa and specifically Mosul. However, as they arrived to either TMC or BRC, they were usually undermanned, poorly equipped, and led by a mix of quality committed leaders and others who were inexperienced, aligned with malign actors, or more concerned with political issues than tactical ones — largely a result of the Iraqi army's decline since the departure of U.S. forces in 2011. The majority of the forces were Shia, with a small percentage also moonlighting with Shia militia groups, causing us to be very cognizant of force protection requirements. However, with respect to BPC, we generally found the Iraqi soldiers eager to learn. Just like ours, they disliked mundane tasks and classes and most enjoyed hands-on training. We quickly realized several key aspects to a successful BPC mission:

- 1) Consistency in the training;
- 2) The need for common equipment that was supportable by the Iraqis; and
- 3) The presence of Iraqi leaders during training.

The newly formed brigades consisted of a mixture of different types of Iraqi soldiers. Some were new recruits, others were transferred from existing Iraqi army units, and some had even been in the units responsible for the original defense of Mosul and fled when it was inevitable that Daish would overtake the city. As a result, their experience level varied, and it was our responsibility to train them to a common standard and establish a consistency for the Iraqis to accept. However, that standard needed to be an Iraqi standard — not an American or coalition standard. Through close collaboration with all the



Photo by SGT Deja Borden

An Infantryman with the 2nd Battalion, 505th Parachute Infantry Regiment instructs Iraqi soldiers during a breach assault and building clearance course at Besmaya Range Complex, Iraq, on 18 April 2015.

BPC sites and CJFLCC-I planners, we established a common training curriculum focusing on the basics of physical fitness, marksmanship, and small unit collective training. This was not only important for the Iraqis but for all coalition members conducting the training as well. We learned that the Iraqis would become frustrated if we taught them something one way and then our coalition partners taught them the same task a different way. We quickly had to develop a common training strategy with our coalition partners, particularly the Australians at the TMC and the Spanish at the BRC.

Once the Iraqi army units mastered the basics (which our junior leaders and paratroopers taught very well), we were able to move onto larger company and battalion-size collective training and focus on operations that would be beneficial in future offensive operations, such as a combined arms breach. Our focus was on teaching conventional military tactics not counterinsurgency operations because Daish was largely fighting like a conventional army. Daish constructed obstacle belts, built engagement areas, and maneuvered in the offense using basic military tactics. Daish fighters weren't particularly good fighters; they just were skilled at using tactics that evoked fear, such as snipers, various forms of improvised explosive devices (IEDs) in the defense, and vehicle-borne IEDs as their version of "strikes." We trained the Iraqi soldiers on basic maneuver and how to counter these tactics. The biggest lesson we took from the training

was that we could not desire success more than the Iraqis. No matter how hard we pushed a particular unit or leader to train or meet established standards, it would only work with prescribed guidance from higher. This was the exact opposite of our Army's mission command philosophy, and the BCT had to learn to work within that specific constraint of the Iraqi army. To solve this problem, we utilized established partnerships at all levels — from CJFLCC-I to DoS to our coalition partners — to influence the necessary Iraqi decision makers to provide the appropriate guidance to the training units.

Throughout the BPC mission, equipping the Iraqi army was a challenging endeavor. Our ability to train them was dependent on units being properly equipped. Working through the larger enterprise within Iraq proved even more challenging due to various loyalties held by power brokers within the Iraqi army and its stove-piped warehousing system. Though coalition partners would assist via donating equipment, once the equipment was given to an Iraqi entity at the strategic level, we lost visibility; final disposition was relatively unknown at the tactical level. For instance, 30 vehicles given to the Iraqi Minister of Defense on a particular date did not necessarily mean the Iraqi brigade we thought the vehicles were slated for would actually receive them. Though a formal acquisition through the Iraqi army supply system is theoretically possible, many times the struggle revolved around an Iraqi staff's reluctance to utilize the process in favor of a more informal practice built around pre-existing

loyalties and relationships. We found the Iraqi logistical system, particularly equipping, was counterintuitive in many respects when compared to our Army system of modified table of organization and equipment (MTOE) authorizations and equipping priorities. As a result, we had to rely on the logistical A&A teams in country to help us gain visibility on the location and scheduling of a fielding for a particular Iraqi unit. Through this process, we were able to influence what Iraqi units needed priority for fielding based off of Iraqi operations. Essentially, we helped the Iraqis create an Army Force Generation (ARFORGEN) cycle where units were manned, equipped, trained, and then employed in combat operations, and then this cycle would be repeated. The Iraqis came away recognizing the importance of such a cycle and the value of training because they saw effectiveness in the units that completed this cycle.

The last major lesson learned while conducting the BPC mission — and perhaps the biggest lesson learned throughout the deployment — was the absolute necessity for Iraqi leaders to be present and actively participating in the training; however, this was often easier said than done. As mentioned, some Iraqi leaders were not placed in a leadership position because of their competence. This meant that their desire to train or improve their respective unit was not always noticeable. We originally thought we could train the Iraqis on how we train, with junior leaders or NCOs leading the training. However, we eventually realized that the Iraqis operate off a very centralized



Photo by SPC Paris Maxey

A paratrooper assigned to A Troop, 5th Squadron, 73rd Cavalry Regiment assists an Iraqi soldier at a range on Camp Taji, Iraq, on 27 June 2015.

command structure with almost everything revolving around the commander. Once we identified this, we came to the understanding that without the commander's "buy in" to a particular training plan or idea, it would not be successful. We had to modify our training approach, and our junior leaders had to interact with Iraqi leaders much more their senior. Lieutenants or captains, and sometimes even platoon sergeants or first sergeants, began to dialogue with Iraqi colonels and generals with great success. We found that over time, as these partnerships grew and the good Iraqi leaders began to trust us more, that we had a tremendous responsibility to provide candid feedback on some Iraqi leaders who were not executing the orders or the training plans as necessary. Over time, this resulted in some leaders at the tactical level being rotated and some Iraqi leadership positions being filled by competent Iraqi soldiers.

Ultimately, the BPC mission was a success because each Iraqi unit that rotated through a training site became better. In fact, as we were leaving, with our help, the Iraqis developed a training rotation plan for existing units, and some Iraqi army units were even "lobbying" for a chance to train with us or our coalition partners.

Advising and Assisting — Listening, Training Commanders and Staffs, and Helping Them "See Themselves"

The other, and equally important, task we executed during the deployment was the A&A mission. As described earlier, we were partnered mostly with the new Iraqi army brigades intended for the Mosul counterattack and the BOC, which were responsible for the security of Baghdad and the surrounding area. While our companies concentrated on BPC, the BCT and battalion staffs focused primarily on the A&A mission. Much like the BPC effort, we initially began to advise our counterparts on what WE thought they should do, without much thought, knowledge, or synchronization with what the Iraqis wanted to do. We then realized that it was their mission and only sustainable if they accomplish it, not us. Once we took a step back and LISTENED to our counterparts, and began to analyze and understand all the other complexities to each situation, our A&A activities became more effective. As such, over time we learned the following lessons to various degrees over the deployment:

(1) We not only were there to advise and assist the Iraqi unit



Iraqi army staff members participate in one of several command post exercises.

Photo courtesy of authors

staffs, but we had to train them as well within the constraints of a very centralized commander's decision-making process; and

(2) We had to allow and help the Iraqi units "see themselves" before we could properly assist with the decisions of the Iraqi commanders.

In the beginning, we thought we were going to just advise our counterparts on the plans they developed. However, we quickly realized, for many different reasons, they did not always develop their own plans independently or in conjunction with guidance from a higher headquarters. Our problem was that we had to figure out a way for our Iraqi staff counterparts — and to some extent the commanders — to be proactive instead of reactive. They needed to learn to anticipate potential friction points to provide the commanders or higher headquarters with facts or analysis to allow the commander to make a decision. As a result, we began to train them on a modified military decision-making process that fit within their very centralized commander's decision-making style. Understanding the "pulse of the commander" and developing personal relationships with each were key to building trust and ultimately the ability to have a positive influence.

We started with, and never really graduated from, training the Iraqi staffs on very simple and basic staff functions and responsibilities. Unlike the staffs in our Army, the Iraqi system is generally stove-piped when it comes to information sharing (information is power), and collaborative planning or staff cross talk did not exist. In an attempt to get them to understand the importance of this, we were able to design and execute several command post exercises (CPXs) with some of the Iraqi army units. The results were astonishing in that once a staff member realized that if information was shared with others, then the overall analysis or recommendation was more complete. Through many rehearsals and repetition,

the commanders realized, or admitted, that their staffs were functioning better in a collaborative manner and that the unit was more successful, which in turn allowed the commander to be seen as a more effective commander.

This also contributed to our other A&A lesson learned: help and allow the Iraqi units to “see themselves.” In the Iraqi army culture — and Iraqi society in general — no one in a position of power or influence wants to admit they don’t know something or cannot do something because they will potentially be seen as a failure. This often resulted in staffs or commanders saying they had the necessary equipment or had requested something when in fact they had not. At first, it was very frustrating to witness this sort of dialogue within the Iraqi army. However, through our candid advisory efforts and by utilizing our own staff functions, over time we were able to provide the Iraqi leaders with a more accurate assessment or analysis, which in turn they began to expect from their own staffs. By essentially becoming an extension of an Iraqi commander’s staff, we were able to influence the guidance and direction he gave his own staff, which then allowed us to train the Iraqi staffs in a more efficient manner. Only then were we better able to synchronize our primary capabilities — ISR and joint fires — in support of their operations and ensure reinforcing effects. Successes included a variety of short-term, tactical operations in and around Baghdad and Fallujah. By employing expeditionary A&A teams to support initial operations in Ramadi as well as advising at the operational level, we were able to reinstate a force generation and training model for the Iraqi army at the IGFC and set conditions with NOC for the eventual counteroffensive in Ninewa to liberate Mosul. Again, the A&A mission appears to be likely in the future, both in Iraq and elsewhere, so these lessons will continue to apply.

Mission Focused — Challenge of Expectation Management

Last but not least, the mission itself required frequent explanation to our paratroopers. We are all certainly proud of the fact that our young paratroopers and leaders volunteered to serve while we remain at war. However, a small percentage did not expect to find themselves primarily training and advising host nation forces instead of also fighting with them. They had seen all of the recent war movies and expected this to be their opportunity to fight, share hardship, display courage, and build lasting memories of ground combat. They didn’t have the experience of previous deployments to Iraq, had not seen the cost of war in blood, and quite honestly could not fully comprehend the importance of Iraqis doing it themselves. Those of us who had been in Iraq before generally agreed that for success to be sustainable, the Iraqi Security Forces had to clear, hold, and build with their own ground troops. Although our participation in offensive operations would be exciting, it would likely result in U.S. casualties and only have a temporal impact that would unlikely provide for an enduring peace unless the U.S. agreed to an open-ended commitment. Bottom line, the senior leaders of the BCT spent significant time and personal energy explaining “why” to both our young paratroopers and

to the Iraqi soldiers themselves. Not because we had to, but we knew it would assist in managing expectations and also explain how truly important and historical this mission was. Iraqi soldiers would live and die based on the quality of our training and advising. Fighting through a proxy is hard, but we came away from the mission tremendously proud of the performance of our partnered forces.

Conclusion

Over the nine-month deployment, both the paratroopers deployed and those who remained at Fort Bragg learned many valuable lessons. Our leaders and paratroopers embraced a complex, evolving mission and contributed substantially to progress in what will undoubtedly be a long and enduring campaign. Collectively, they gained insights on an exceedingly complex, culturally sensitive operating environment that epitomizes those we can expect to operate in the future; demonstrated tremendous adaptability, initiative, and innovation throughout an ever-changing mission; validated the importance of our own high level of training and readiness and our ability to transfer those skills to Iraqis; and learned valuable lessons in interoperability and the importance of a coalition. As one looks at predictions of the future operating environment, one cannot help but see similar requirements and missions on the horizon. Through a mission-command approach, proper leadership, adaptability, and creative thinking, success is achievable.

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A COLD, SOGGY, BOGGY SLOG: GROUND FORCES IN HIGHER LATITUDE COMBAT

DR. LESTER W. GRAU

There are apparently no spots on the planet that are so remote, so inhospitable, and so devoid of transport and infrastructure that man will not fight over the possession of them. Mountains, jungles, and deserts have all seen their share of combat. People have even fought in the Arctic and in proximity to the Antarctic — and not just the indigenous populations. The land areas approaching and within the Arctic and Antarctic Circles provide unique challenges to military operations. Terms to describe this combat have included northern warfare (a Western-centric term that excludes the areas near the Antarctic), arctic warfare (a term which excludes the Antarctic as well as those inhospitable areas south of the Arctic Circle), and cold weather combat (there are permanent ice and snow-covered areas, but much of this area is devoid of snow and cold during the summer thaw, and movement and combat during the thaw can be quite difficult and requires different techniques and equipment). Geographers refer to the sub-Arctic, Arctic, sub-Antarctic, and Antarctic belts. The sub-Arctic and sub-Antarctic belts do extend at places below 40 degrees northern and southern latitudes, however, so this is not particularly definitive. Higher-latitude combat generally occurs above 55 degrees northern and southern latitudes, understanding that blizzards, ice storms, and snowstorms do occur frequently and regularly below 55 degrees northern and southern latitudes. Sub-arctic combat is not necessarily easier than arctic combat, it just has different challenges.

A Quick, Recent History of Higher Latitude Combat

Significant, large-scale combat has taken place in the higher latitudes. The terrain, weather, and limited infrastructure impose severe difficulties on untrained and non-acclimated soldiers. The prime concerns are mobility and shelter. Tactics and force structure require modifications and adjustments.¹ Equipment does not run as efficiently and may require special lubricants, garaging, fuels, and support. Everything takes more time. The past 100 years have witnessed some major confrontations in the higher latitudes. The future will undoubtedly see similar confrontations.

In 1918-1920, some 14,000 U.S. Army combat and support troops deployed near the ports of Murmansk and Archangel in northwestern Russia and near the port of Vladivostok in the



Department of the Army photo

Troops hauling supplies forward to units fighting the Japanese on Attu in May 1943.

Russian Far East. Their mission was to protect the quantities of war supplies that the allies had shipped to the armed forces of the Tsar during World War I. Civil war swept over Russia as the Whites [Russian counterrevolutionaries] fought the Reds [Bolshevik revolutionaries]. Japan, the British Empire, France, Italy, Poland, Serbia, Romania, China, and Greece also sent contingents to support the intervention.² About 50,000 Czech soldiers, originally with the Austro-Hungarian Army, were trapped inside Russia and trying to transit eastern Russia to the Pacific Ocean and then to sail to France and eventually join the allied forces fighting there. Japan and Britain were hardly neutral, and the U.S. Army was hard-pressed to maintain some form of neutral posture while acting with the allies. On occasion, the U.S. forces fought Bolsheviks along with other allied forces. The 27th Infantry Wolfhounds, in conjunction with a Japanese division, marched more than a thousand miles in pursuit of retreating communist soldiers. U.S. Soldiers guarded the ports and portions of a 2,000-mile stretch of the Trans-Siberian railroad. U.S. forces also maintained and enforced a truce of sorts between warring Russian factions.³ Not all the allied intervention forces were involved in higher latitude combat, but enough were to realize that these regions require different training, tactics, equipment, and support.

On 30 November 1939, the Soviet Union attacked Finland in the Winter War that lasted until 20 March 1940. It was a short, brutal war that cost the Red Army 65,384 killed in action (KIA) or died of wounds, 14,142 missing in action (MIA), 186,584

wounded in action (WIA), 5,468 prisoners of war (POWs), and 9,614 cold-weather casualties.⁴ Finnish casualties were lower (some 26,662 dead and 39,886 wounded), but Finnish forces were much smaller and the Soviets won the 105-day war. Some of the fighting occurred on the Kola Peninsula within the Arctic Circle, but the main fight occurred in south and central Finland.⁵ The Finnish forces were able to withstand the Soviet onslaught for as long as they did due to their specialized training, acclimation, and familiarity with winter movement.

In May 1943, the U.S. 7th Infantry Division landed on Attu in the Aleutian Island chain to oust Japanese occupying forces. A few months later, a combined Canadian-7th Infantry Division force invaded the nearby island of Kiska. Expulsion of the 3,000-man Japanese force cost U.S. forces some 3,929 casualties of which 1,481 were deaths. More than half of the casualties resulted from the cold, wet environment; lack of proper cold-weather gear; and friendly fire incidents in the fogged-in terrain.⁶

In October 1944 the largest Arctic ground operation in history occurred in Northern Finland and Norway between the Soviet 14th Army and the German 20th Mountain Army. The 133,500 men of the Soviet Army, supported by the Soviet Northern Fleet, faced some 45,000 Wehrmacht and German allies. The Soviet Petsamo-Kirkenes offensive forced the German army to withdraw and captured the crucial Finnish nickel mines in Pechanga/Petsamo. The Soviets massed ski troops, naval infantry, artillery and tanks, supported by 30 engineer battalions, horse and reindeer transport companies, and significant airpower. The Soviet advance was successful but limited by the retreating German destruction of the meager road network.⁷ Soviet losses were 21,233 (6,084 KIA and 15,149 WIA) in the 23 days of fighting.⁸ Soviet sources estimate German losses at 18,000 KIA and 713 POW.⁹

On 2 April 1982, Argentina invaded the British Falkland Islands (Malvinas). The islands are some 300 miles east of the South American coastline and about the same southern latitude as the northern latitude of Attu Island in the Alaskan Aleutians. Britain responded with a naval and amphibious task force and on 21 May, British ground forces landed. On 14 June, Argentina surrendered. During the 74-day conflict, Britain lost 258 killed and 777 wounded in addition to two destroyers, two frigates, two auxiliary vessels, and 34 aircraft. Three Falkland Islands civilians (British citizens) were killed. Argentina lost 649 killed, 1,068 wounded, 11,313 captured in addition to losing a submarine, a light cruiser, and 98 fixed-wing aircraft.¹⁰

Climate and Terrain

The Arctic and sub-Arctic belts are not of uniform width, but bend, narrow, and expand due to prevailing winds and geographic features. The sub-Arctic belt generally falls between 50 and 70 degrees north latitude. The sub-Antarctic belt contains very little land mass other than the southern tips of Argentina and Chile plus some southern islands. The sub-Arctic characteristically has very cold winters and short cool or mild summers. Permafrost prevails in much of the area except along the southern border and in islands and areas bordering the ocean. Temperatures can range from -40 to +85 degrees

Fahrenheit. Coniferous trees (pine and spruce) create large forests (taiga) in the Russian and Canadian sub-Arctic. These forests are home to bears, fox, wolves, wolverines, bobcats, moose, caribou, and rabbits.

The tundra climate is found between 60 and 75 degrees latitude and is normally along the coast of the Arctic Ocean. This climate has a very harsh winter and a cool summer. During the summer, much of the snow and ice melts to form marshes and bogs. However, some of the deeper parts of the soil remain frozen [permafrost] to a depth of three feet. Temperatures range from -50 to +50 degrees Fahrenheit. Trees do not survive in the tundra, but mosses, lichen, and algae do. The tundra is home to polar bears, musk ox, arctic foxes, caribou, and lemmings.

The ice cap climate is found over the north and south poles, much of Greenland, some northern islands, and at the top of the highest mountains. There, the temperature seldom climbs above freezing, no vegetation grows, and the animals (polar bears, seals, albatross, and penguins) are found along the sea coast but not in the interior. While Antarctica is a large landmass continent, there is no land mass beneath the ice of the North Pole. About 20 percent of the earth's land mass lies under ice cap. Antarctica is far colder than the Northern Polar Region. Temperature extremes of 6 to -129 degrees Fahrenheit have been recorded in Vostok, Antarctica.

The higher latitudes contain much of the world's land mass. The northern higher latitudes have long been occupied by native peoples, whereas the human population of the Antarctic is comprised of temporary residents working in research settlements and even more temporary tourists. Although military expeditions conducted much of the Antarctic exploration, the Antarctic Treaty, which came into effect on 23 June 1961, bans military activity in Antarctica while treating the continent as a scientific preserve with freedom of scientific investigation. By treaty, military personnel and equipment may only be used for scientific research and other peaceful purposes, such as transport and logistics, on the continent. Despite this and other treaties, seven countries retain claims on part of Antarctica while Russia and the United States have reserved the right to make future claims. Other treaties prohibit mineral and energy extractions in Antarctica; however, recent mineral and oil discoveries there might lead to exploitation and confrontation despite the existing treaties.

Mobility and Maneuver

Vast swampy tundra, mountains, rivers, large quantities of boulders, and limited roads complicate mobility and maneuver in the higher latitudes. It is a difficult region for even simple engineering projects, and in winter, deep snow drifts, the polar night, and low temperatures add to the difficulty. Weather is always a complicating factor, and radio communications are often interrupted by metrological conditions. The Russians consider March/April through October as the best time for maneuver in the north. Snowmelt starts in the spring, and the "white nights" allow for 24-hour observation. Military advances and retreats normally follow roads, rivers, beaches, and trails across the tundra. Military objectives are frequently villages, road intersections, defiles, isolated

Soldiers from the 3rd Squadron, 2nd Cavalry Regiment drive their Stryker in wintry conditions on their way to the Tapa Training Area to begin winter camp in Estonia on 15 February 2016.

Photo by SSG Steven M. Colvin



heights, mountain passes, river crossing sites, and water-landing points. Tracked vehicles are often optimum for movement, but they can tear up the rather delicate earth surface and create their own obstacles.¹¹

The Germans who fought the Soviets in the Arctic had a different view. "The characteristics of terrain and climate in the Far North are such that winter is the more favorable season for offensive campaigns, while summer is more suitable for defensive operations. Early and late winter are particularly favorable for attack operations; midwinter with its deep snow is a less appropriate time for offensive warfare."¹²

The U.S. Army has a view somewhat similar to the Germans, but it has more affinity for midwinter. "The most suitable time for ground operations is from midwinter to early spring before the breakup period. The snow is 'settled,' giving well-trained and supported troops an excellent opportunity for oversnow mobility. During this period, operations are possible even in a roadless wilderness. Early winter, after the formation of ice, is also favorable; however, it does not afford well-trained troops the same oversnow and cross-country mobility as midwinter... In midwinter, the environmental factors — extreme cold and snow — may be used to advantage by leaders with initiative and ingenuity."¹³

Why the marked difference in opinion between Russia and Germany and the United States? Russia prefers the warmer weather with nearly 24-hour visibility, a reduced requirement for warming-up stations during operations, lessened chances of blizzards and other incapacitating weather for the trade-off of more difficult cross-country and road mobility. They build their wheeled and tracked vehicles with high clearances for use in their native terrain. Their track width is usually broader than similar U.S. tracked vehicles.

The Germans, who started World War II with narrow tracks on their tracked vehicles and low road clearances on their wheeled vehicles, were mired in the Russian spring thaw and

autumnal heavy rains [распутица]. The frozen soil and frozen lakes and rivers of the severe Russian winter permitted cross-country mobility for German vehicles. However, the deep snows of midwinter, along with the debilitating cold, again limited mobility and maneuver. The Germans put wider tracks on their tracked vehicles and used a lot of captured Soviet wheeled vehicles but still were never as mobile on Russian terrain as the Soviets. Cold-weather casualties during the severe Russian winter plagued the German forces throughout the war.

In winter, variations in temperature and precipitation exert great influence on the nature of terrain and the mobility of troops. During the early part of winter, severe frosts (before snow begins to fall) make it possible to cross otherwise impassable terrain. Rivers and lakes freeze and may be crossed by vehicles, but swamps which are under a blanket of snow usually have only a thin and weak ice surface. The effect of snow and freezing temperatures varies with local conditions, but generally snow can immobilize wheeled and tracked vehicles of all kinds except on first class roads.

Even a light snowfall, piled into snowdrifts by the wind, may lead to serious traffic difficulties. Drifts may begin to form early in winter and may pile very high, especially on the great steppes. Visibility is usually good in clear, frosty weather, and noises carry to great distances. An overcast sky makes observation difficult. Exact terrain appreciation and target designation may become impossible because elevations and depressions show up only slightly, and serious errors can occur in estimating distances.¹⁴

The Americans prefer the hard, cold winter during almost continual night for maneuver. They prefer the deep snow of midwinter even though the HMMWV and Stryker are road-bound in more than a foot of snow.¹⁵ So why the differences in opinion among these nations? The differences may be a result of the nations' perception of higher latitude warfare.

Winter wars are seldom limited to a single season, and the armies involved are there for the duration. The Russians are accustomed to living and working in the winter and have a long history of winter combat. They fought the Winter War with Finland entirely during the winter, launched their incursion into Afghanistan over the snow-covered Hindu Kush Mountains, and completed their withdrawal over those same mountains during the winter. The Russians consider snow as a normal combat condition and a prime design factor in building military vehicles. The Russian T90 tank has higher ground clearance, lower ground pressure, lower silhouette and considerably less total weight than the U.S. M1A2 tank and is the better snow vehicle. The Russian MT-LBV is an effective armored transport fielded in the 1980s that is still the premier winter tracked vehicle. But fighting in the winter is more than equipment. Fighting in extreme cold requires remarkable efforts in preventing cold-weather casualties and maintaining mobility.

In the northern sector during the Winter War and the Soviet-Finnish/German Continuation War (fought from 25 June 1941 – 19 September 1944), the fights were in the forests and on the tundra for possession of the few east-west roads in the region. Down south on the Karelian Peninsula, defensive lines were continuous and tied in. Further north, open flanks were common by necessity, and the fights were attempts to turn a flank while maintaining pressure along the road. Soldier survival was of paramount importance and, in winter, required nearby warming stations and living accommodations to keep soldiers alive. During the Continuation War, the Finnish efforts were directed to restoring territory lost to the Soviets during the Winter War, maintaining border integrity, and interdicting Soviet railroad lines. Railroad was the most reliable means of transport in the far north and, along with the roads and population centers, represented key terrain.

The U.S. has fought in cold weather. The Battle of Trenton and the Winter Campaigns against the Plains Indians were the most successful. Valley Forge, the Battle of the Bulge, and the retreat from the Yalu River were all crisis events that were compounded by cold weather and snow. In World War II, the U.S. Army suffered 84,000 cold-weather casualties.¹⁶

Amphibious landings and raids are often a major component of arctic ground maneuver.¹⁷ During the spring and summer, rivers and lakes provide the ability to move and maneuver using shallow draft boats with low overhead clearance. However, navigation of glacier-fed waterways can be treacherous due to the shifting channels, sand or gravel bars, and other obstructions.

Perhaps the answer is that there is not a single optimum maneuver season for high-latitude combat, and even if there were, high-latitude combat is seldom settled over a single season. Simple tasks take longer in the higher latitudes, and complex tasks may become impossible. The primary concern of high-latitude combat is to keep one's soldiers alive, disciplined, and capable of coordinated combat. The optimum maneuver season will be a function of the mission, enemy, terrain, logistics, and weather.

Perhaps the answer is that there is not a single optimum maneuver season for high-latitude combat, and even if there were, high-latitude combat is seldom settled over a single season. Simple tasks take longer in the higher latitudes, and complex tasks may become impossible. The primary concern of high-latitude combat is to keep one's soldiers alive, disciplined, and capable of coordinated combat.

Staying Alive

The critical component of arctic and sub-arctic combat is keeping the force alive and motivated. Snow and cold dictate a heating plan, which includes establishing winter garrisons/warming stations and countering thermal/smoke detection sensors. Warming and maintaining warmth in normal tents requires inordinate amounts of fuel and are readily identifiable to heat sensors. Engineer support in constructing troop shelters is complicated by the cold and wind, reducing their effectiveness some 30-50 percent.¹⁸

Eating, drinking, field sanitation, and prevention of cold-weather injuries are difficult in the Arctic, particularly for soldiers not trained and accustomed to working there. Poor morale and psychotic behavior can also break out quickly. Aggressive small-unit leadership can prevent or mitigate problems in these areas, but ground units need to plan frequent rotation of ground units to keep them combat effective.¹⁹

High-Latitude Combat

North of the Arctic Circle, the conduct of operations is circumscribed by time and space elements unknown in temperate regions. The midnight sun of summer, the 24-hour night of winter, and the muddy transition periods of spring and autumn nullify conventional concepts of freedom of maneuver.

In the Arctic a military decision communicated by an order is irrevocable. Whatever forces have been committed, whatever course of action has been initiated, an interminable time elapses between original impulse and final effect. Once started, the chain reaction must run its course. To stop, to reverse, to change direction is to run the risk of losing the initiative. First, decisions must be correct. Command procedure must be adapted to the unorthodoxies of warfare in the north. Leaders at all levels, down to the squad, must make decisions far transcending the scope of their usual responsibilities.²⁰

Ground combat in the Arctic often begins with the contending forces not in direct combat, and the depth of the objectives can be significant. This requires combined-arms task organization blending tanks, mobile infantry, mortars, artillery, and engineers. If the region has lakes, amphibious vehicles may be needed in the summer, whereas skis will do

as well in the winter. Flanking detachments frequently work with air assault forces to seize road junctions and bridges. Planning considerations for the scheme of maneuver include swamps, regions of deep snow pack, order of march, flank and rear security, and increased combat support. Movement across snow may require marking the way with dye, coal dust, or oil. Naturally, flank and rear attacks are better than frontal attacks. Ground combat may require movement during polar night, blizzards, fog, and snow storms. Most of this movement will be directed by compass azimuth or satellite signal. In many areas of the Arctic, compasses and satellite signals are not reliable. Keeping units warm, intact, and moving will be a challenge.²¹

“The ability to carry out a march in winter may be the basis for the successful outcome of a battle. If possible, the enemy must be surprised, and surprise is more likely if the troops avoid highways and roads and move across terrain which is considered impassable. Experience has shown that enemy resistance is weakest in terrain that he considers inaccessible, and that cross-country marches frequently permit envelopment of his position. The enemy is particularly susceptible to attack on his flanks and rear. A frontal attack is very difficult in deep snow, even when it is executed on skis.”²²

Eike Middeldorf fought the Red Army in World War II and in 1956 he published *Taktik im Russlandfeldzug: Erfahrungen Und Folgerungen*. This is an excellent examination of effective tactics of the Wehrmacht and Red Army. The following sections on offensive and defensive winter combat are extracted from Chapter 7 which deals with winter warfare.²³

Offensive Winter Combat

Offensive winter operations are usually accompanied by significant losses in men and material. However, winter operations carried out during the worst winter conditions have often proven successful. It is difficult to conduct strong offensive action with decisive results in winter. The critical point of the attack is realized later than in a summer attack. The maneuver element is tied to the roads. Therefore, their formation becomes very compact and they may be cut off easily. Flanking a strong pocket of resistance takes a great deal of time and requires a great deal of effort by the force. In the majority of cases, a frontal attack over a deep snow cover is impractical. If these will not work, a double envelopment is necessary. Attacking at night or during fog or a snowstorm will facilitate a flanking attack. Every attack must be carefully prepared. Combat actions, as a rule, are conducted along narrow lines (for example, along a road or deployed for the seizure of a nearby inhabited area). The firing positions of the heavy weapons, antitank weapons and artillery, in the majority of cases, are positioned close to the road. A specially-trained ski unit may be used to expeditiously attack the flank or rear of the enemy.

Using a map to determine one's location in the winter leads to mistakes. Besides using the map, it is necessary to conduct a thorough physical reconnaissance, especially in areas of snow drift. If the weather or wind direction changes, it is necessary to again conduct a physical reconnaissance

of the area. Aerial reconnaissance can provide information about the presence of roads through vehicle tracks. Moving and stationary forces can be detected by lights during the winter night. Preparation for an attack during winter requires more time than during summer. The assembly area is closer to the enemy and occupying it needs to be conducted quickly while using existing cover to get into it. Clearing the avenue of approach to the assembly area must be done at night. Prior to the attack, it is necessary to feed the troops hot rations and drinks, but under no circumstances should they be given alcohol.

Attack missions should not be too deep, for example seizing a village, a piece of forest or an important road. Heavy weapons need to be moved forward as much as possible to the forward line in order to avoid shifting positions at the start of combat as that takes a great deal of time. Special attention must be given to considering the difficulty of moving forces under winter conditions.

In the offensive, infantry must cross ravines and other terrain features during movement; however, these places may experience heavy snow drifting. Tanks must travel along elevated terrain, avoiding twisting slopes and hollows covered with snow drifts. They also have to bypass sections of open ground.

If the ground is frozen solid and the snow cover is not deep, the lethality of high explosive fragmentation rounds increases. Under such circumstances, try to disperse the force over a larger area. Winter advances, like advances in forests, are conducted along individual, important axes, requiring that forces be deeply echeloned. During the second stage of the advance, it is necessary to conduct feint attacks, reconnaissance by battle, artillery strikes and take other measures to mislead the enemy. It is important to remember that after beginning an advance, it is practically impossible to change its direction.

If the advance does not achieve its goals, it is best to transition to the defense along an advantageous line or even withdraw to an assembly area in order to reorganize and rest before resuming the attack.

Any winter advance makes major demands on the engaged forces. Winter combat requires battle-hardened forces that have experience in the conduct of winter combat.

Defensive Winter Combat

It goes without saying that winter defense is far easier to conduct than a winter advance. The main element of the modern advance is maneuver, especially over great distances while constrained by deep snow and limited daylight. Further, many winter nights are characterized by good visibility, supported by defensive possibilities of conducting effective fire. On the other hand, winter defense allows a defender to conduct a surprise attack without abandoning his defensive positions while destroying an unsupported enemy force that is unprepared for defense.

The main differences between a winter and a summer defense are as follows:

* When the ground is frozen solid, preparations of defensive positions and construction materials entails a great deal of time. During the fall, when the fighting is still in full swing, it is necessary to construct rear area defensive positions in time using combat formations and local inhabitants. Even after a successful advance, it may be more advantageous to withdraw forces into prepared positions than try to build positions under unfavorable circumstances and fight on suffering more casualties. The timely withdrawal of forces into prepared positions may limit the number of forces necessary for the defense;

* The selection of defensive positions will be different for a winter defense from a summer defense. For example, rivers, lakes, and swamps are no obstacles in the winter. Frozen rivers running into the depths of the defense often provide a ready and covered route through the forward defensive belt. Villages, which in the summer are often avoided, in the winter are unavoidably converted into important populated centers. Therefore, it is necessary to convert them into individual strong points, laid out for all-around defense. In the villages, it is necessary to reinforce underground basements with local building materials and use these as bunkers;

* The enemy will attempt to build fortifications in open areas in order to protect his forces. Open areas in the forward defenses may only be lightly held. No-man's land, particularly during the day, will only come under fire, but military security forces will not enter. At night it will be necessary to send reconnaissance groups and listening posts into no-man's land. It will be necessary to fully occupy those defensive areas where visibility is limited such as sections of forest, brush or broken terrain. This will prevent a surprise attack by an infiltrating enemy.

In the winter, as in the summer, it is necessary to pay particular attention to the layout of the anti-tank defenses. This is particularly important to positions located near rivers and swamps where a strong freeze can quickly convert these into 'tank country.'

Trenches, dugouts, and separate weapons positions must be built to their proper dimensions, although the depth of these can be lessened by piling up snow, dirt, and ice to achieve the proper depth. Well-fortified observation posts are constructed side by side with the larger number of dug-in firing positions.

In the majority of cases, units and gun crews will only be able to construct one well-fortified primary fighting position. Therefore, it is necessary to prepare additional "snow positions" to the rear of the primary positions. These have snow walls up to 1.5 meters high and are used as alternate or separate positions or else to shelter subunits held in reserve.

If the enemy attacks through deep snow, his movement is constricted and the defender can open up on him earlier with all types of weapons. The enemy will be readily seen against the snow and present an excellent target. Further, the defender should strive to open fire earlier from his concealed positions, forcing the attacker into deep snow and exhausting his force. On the other hand, the concentrated fire of the attacking enemy is less dangerous than in the summer.

If the enemy advances over an open area (for example, on a frozen lake or a plain without ravines), it is better to let him advance closer to the forward edge of the battle area (FEBA) and then open up with surprise powerful fire.

During the conduct of a winter defense, the reserve is located significantly closer to the FEBA and is significantly larger than in the summer. From this it follows that the defender should maintain a smaller-than-usual force on the FEBA and a larger-than-usual force in the depths of the defense. In the winter, it is necessary to rotate frequently the subunits located on the FEBA. After the subunits have warmed up and rested, it is preferable to return them to the same sectors of the defense that they held earlier.

During the conduct of the defense in the winter, the forces must remain particularly determined since the slightest retreat may result in the loss of warming bunkers and a withdrawal into the unknown.



Soldiers with the 2nd Battalion, 503rd Infantry Regiment, 173rd Airborne Brigade, conduct cross-country ski training with Italian army soldiers from the 7th Alpine Regiment near Belluno, Italy, on 24 March 2015.

Photo by SGT A.M. LaVey

Conclusion

Soldiers and units cannot learn high-latitude and winter combat by merely reading books and articles. They have to learn by doing. If the unit does not have seasoned “sourdoughs,” it takes much longer to train the unit. A soldier may learn the basics with a month of training in the environment, but it will take a winter to train a unit to a minimal level of effectiveness. Living in a cold climate does not create a winter warrior any more than living near a football stadium creates a great quarterback.²⁴

Military history is filled with many examples of the tragic effects of conducting winter and high-latitude combat without proper training and equipment. The United States has not been involved in serious winter combat since the Korean War, and there are not enough units trained and equipped for winter and high-latitude combat in the force. The military requirement for potential commitment to high-latitude and cold-weather combat is growing and should be a concern for U.S. and allied leadership.

Notes

¹ Many senior leaders believe that Army doctrine is universal and can be applied to all AOs in all conditions. The climactic conditions in the Arctic (and assumedly in the Antarctic) require major modifications to tactics and, therefore, force structure.

² Japan sent the largest contingent of any of the major powers to the Far East. They originally deployed more than 70,000 troops and finally topped out at 250,000 prior to their total withdrawal in 1922.

³ D. M. Giangreco, *United States Army: The Definitive Illustrated History* (NY: Fall River Press, 2011), 246-250.

⁴ *Grif sekretnosti snyat: Poteri voeruzhennykh sil SSSR v voynakh, boevykh deistviyakh i voennykh knofliktakh* [The Secret Seal Is Lifted: Casualties of the Armed Forces of the USSR in War, Combat Actions, and Military Conflicts] (Moscow: Voenizdat, 1993), 99.

⁵ Carl Van Dyke, *The Soviet Invasion of Finland 1939-1940* (London: Frank Cass, 1997) provides a good overview of the war, mostly from a Soviet perspective.

⁶ Giangreco, 290. Much of this fighting was defensive, hopping from trench to trench. Future arctic combat may resemble this — establish a temporary defensive line, infiltrate/penetrate, take the next line, move logistics up, then start the whole process again.

⁷ David M. Glantz and Jonathan M. House, *When Titans Clashed: How the Red Army Stopped Hitler* (Lawrence, KS: University Press of Kansas, 1998) provides a concise summation of this operation. James Gebhardt, *The Petsamo-Kirkenes Operation: Soviet Breakthrough and Pursuit in the Arctic, October 1944* (Fort Leavenworth, KS: Leavenworth Press, 1989) is the most comprehensive study of this operation in the English language.

⁸ *Grif sekretnosti snyat*, 210.

⁹ Kh. Khudalov, “Petsamo-Kirkenesskaia operatsiia” [Petsamo-Kirkenes Operation], *Voenna-istoricheskii Zhurnal* [Military History Journal], No. 10 (October 1969): 116.

¹⁰ The Falkland Islands conflict of 1982, <http://www.falklandswar.org.uk>, accessed 6 June 2014.

¹¹ V. Kuselev and I. Vorbyev, “Nastuplenie v severnykh rayonakh” [The Offensive in Northern Regions], *Armeiskiy sbornik* [Army Digest], February 2013, 2-3. Repeated movement of tracked vehicles over the same arctic terrain will soon close the area to further movement. Ski movement of units works, but it is difficult to train a unit to minimum standards for ski maneuvers, let alone resupply.

¹² Department of the Army (DA) Pamphlet 20-292, *Warfare in the Far North*, October 1951, 7.

¹³ FM 31-71, *Northern Operations*, June 1971, 1-4, para 1-9. The U.S. preference is based on having an ample amount of trained arctic warriors. Climbing and going down certain mountains in summer is much

harder than glissading or skiing down in winter. But this is all contingent on knowing how to glissade and ski, plus keep yourself warm, move, eat, cook, camp and perform bodily functions in the arctic winter. The only personnel who have this training today work at AMWS, NWTC, some SOF units, or cultivate these skills on their own time. There aren’t many of them. There are fewer fully trained units.

¹⁴ *Army High Command, Taschenbuch für den Winterkrieg* (Berlin, 5 August 1942), translated and issued by Military Intelligence Division, German Winter Warfare, Special Series No. 18, War Department, Washington, D.C., 15 December 1943, 1. This manual, based on German experience of fighting in the Russian subarctic in 1941 and 1942, was captured by U.S. forces and translated for their use. Page numbers refer to the translation.

¹⁵ Army Tactics, Techniques, and Procedures (ATTP) 3-97.11/Marine Corps Reference Publication (MCRP) 3-35.1D (FM 31-70 and FM 31-71) *Cold Region Operations*, January 2011, page 4-8, para 4-41.

¹⁶ *Ibid*, page v.

¹⁷ Viktor Leonov, *Blood on the Shores: Soviet Naval Commandos in World War II* (Annapolis, MD: Naval Institute Press, 1993), 63-127.

¹⁸ V. K. Shamshurov, *Inzhenernoe Obespechenie boya v Osobykh Usloviyakh* [Engineer Combat Support in Special Conditions], (Moscow: Voenizdat, 1985), 193.

¹⁹ Kuselev and Vorobyev, 3. This “belaya depressia,” or white depression, is a common Russian phenomenon. Non-residents start to feel unsettled. After a few days, as one’s body is eating itself to stay warm, people get really lethargic and just want to sit in the tent and eat.

²⁰ DA Pam 20-291, *Effects of Climate on Combat in European Russia*, February 1952, 63. This alludes to German auftragstaktik where junior leaders know the senior leader’s intent and innovate and change orders to meet it. This requires a level of junior leader initiative and senior level trust that not always evident. Implicit here is that junior leaders have to understand arctic warfare. But it takes more than one rotation into the arctic to get it right.

²¹ Kuselev and Vorobyev, 3.

²² *Army High Command, Taschenbuch für den Winterkrieg*, 7.

²³ Eike Middeldorf, *Taktik im Russlandfeldzug: Erfahrungen Und Folgerungen* (Hamburg: E. S. Mittler & Sohn, 1956) translated into Russian and published as *Russkaya Kampaniya: Taktika i Vooryzhenie-SPB* (Moscow: Poligon, 2000). Since the German original was not available to this article’s author, he used the Russian version accessed on 19 November 2014 at militaria.lib.ru/h/middeldorf/07. Eike Middeldorf was a company and field grade officer during World War II and rejoined the Bundeswehr in 1956. He retired as a major general with last posting as Chief of Staff of III Corps in Koblenz.

²⁴ Nathan Fry, “Survivability, Sustainability, and Maneuverability: The Need for Joint Unity of Effort in Implementing the DoD Arctic Strategy at the Tactical and Operational Levels,” *Military Review* (November-December 2014) addresses many of the concerns and challenges involved in preparing a U.S. force for arctic combat.

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Training Notes



Photo by Mike Casey

MAJ Michael Stinchfield, left, and MAJ Greg Pavlichko demonstrate the virtual capabilities of the Stryker Virtual Collective Trainer concept at the Combined Arms Center - Training Innovation Facility on Fort Leavenworth, Kan.

TRAINING INNOVATION CENTER SHOWS PATH TO FUTURE ARMY TRAINING

MAJ MICHAEL STINCHFIELD

The Army faces the challenge of providing training capabilities that prepare Soldiers to win in an increasingly complex world. To make that challenge even more difficult, the training capabilities must be produced quickly and at low cost. The Combined Arms Center – Training (CAC-T) at Fort Leavenworth, Kan., is collaborating with other Army organizations to meet those challenges.

At the Combined Arms Center – Training Innovation Facility (CAC-TIF), a team of Soldiers and Civilians are using today's off-the-shelf technologies to demonstrate how to create new Army training capabilities, largely using existing programs of record.

Last year, the CAC-TIF was formed to examine current capabilities and recommend future requirements for simulations. Located at Fort Leavenworth's National Simulation Center, CAC-TIF is demonstrating how emerging technologies such as virtual reality and common commercial devices such as touchscreens can be leveraged for immersive training.

Virtual Reality

Virtual reality is a fully immersive, artificial environment presented through a display system embedded in goggles. It

is a challenging method to present training, but the CAC-TIF is showing its real potential for affordable military application with several different demonstrations.

The CAC-T team is looking at the civilian world to see how virtual reality can improve Soldier training and education. NFL teams are using virtual reality technology to train quarterbacks how to recognize various defensive schemes. To teach astronomy, one commercial game places the student in a small spaceship to tour the solar system and some of the Milky Way's largest stars. Using technology this way, fundamentally enhances education by giving the student a sense of being there.

For military education, virtual reality offers great opportunity to make learning more interesting and compelling. Soldiers learning about the Battle of Gettysburg could sit upon MG George Meade's horse as he directs the defense and just as easily transfer their point of view to GEN Robert E. Lee ordering an attack.

Virtual reality also will provide opportunities for Army leaders who could use photographic data from digital maps to virtually conduct reconnaissance of potential operational areas.

The CAC-TIF team works to understand these emerging technologies and how they can be used to fill training gaps, reduce costs, and improve home-station training. Team members are not working alone. They collaborate with the operating force and the Program Executive Office for Simulation, Training, and Instrumentation to recommend requirements for training gaps.

Stryker Concept

The CAC-TIF's work on the Stryker Virtual Collective Trainer concept exemplifies how the facility is looking at applying affordable commercial hardware to develop requirements for a training capability gap. Stryker Brigade Combat Team (SBCT) leaders have expressed the urgent need for a Stryker training simulator.

To demonstrate the concept, CAC-TIF team members used commercially available virtual reality headsets to create a 360-degree immersive environment outside the vehicle. Improvements are on the way to enhance virtual reality as companies introduce new retail headsets with even better capabilities. The concept vehicle uses touch screens instead of an expensive console with a number of buttons. The CAC-TIF, however, did incorporate some items that needed to be exact. The joystick has the same form, fit, and function of one in the Stryker vehicle.

The Stryker virtual trainer concept is just for demonstration, not for actual training. The CAC-TIF team wants to know what the force thinks of the concept, what works, and what needs improvements. They displayed it at the Interservice/Industry Training, Simulation, and Education Conference in December 2015 and the Stryker Leadership Summit in February 2016. They are also taking a platoon capability demonstration to some SBCTs in 2016 to get feedback from Soldiers in order to refine requirements.

In addition to the Stryker, the CAC-TIF aims to demonstrate inexpensive interfaces for collective aviation and mounted maneuver training.

Synthetic Training Environment

Future CAC-TIF work will focus on more than just virtual reality and vehicle simulator interfaces. Their primary objective is to refine requirements for future simulation capabilities, specifically the Synthetic Training Environment (STE).

The STE will provide a single simulation service, no matter what the training objective. Whether you need to fly a helicopter, rehearse a Stryker platoon attack or conduct a staff exercise, the virtual world created by the STE is the one which you will interface. The CAC-TIF's projects ultimately refine requirements for the STE and demonstrate how you will interface with that simulation environment in future training.

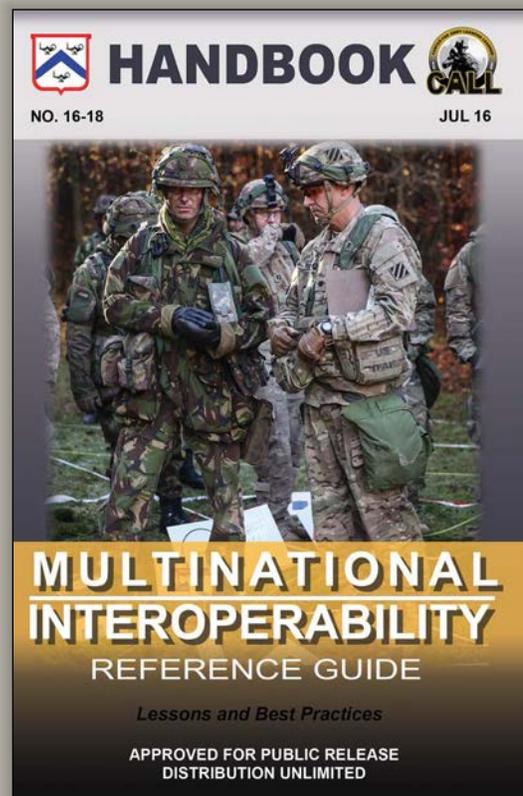
You can submit suggestions for future CAC-TIF projects to MAJ Mike Stinchfield at (913) 684-8122 or e-mail: usarmy.leavenworth.cac.mbx.cac-t-pao@mail.mil.

MAJ Michael Stinchfield currently serves as the chief of the CAC-TIF.

CALL RELEASES INTEROPERABILITY REFERENCE GUIDE

The challenges and complexity of the future will require the Army to provide a broader range of capabilities to achieve strategic outcomes across a complex and diverse range of global missions. The Army Vision cites "integrate operations" as one of the unique roles performed by the Army, providing combatant commanders with foundational capabilities, to include headquarters capable of integrating joint, interagency, and multinational operations. In the future, the need for interoperability will extend to lower echelons of Army forces in order to effectively integrate smaller national contributions into multinational operations.

<http://usacac.army.mil/sites/default/files/publications/16-18.pdf>



TOMAHAWKS TAKE ON NTC: STRYKERS IN A COMPLEX FIGHT

1LT KEVIN P. BASSNEY

In August 2015, the 4th Battalion, 23rd Infantry Regiment (Tomahawks), 2-2 Stryker Brigade Combat Team (SBCT), 7th Infantry Division, began preparations for its January 2016 rotation to the National Training Center (NTC) at Fort Irwin, Calif. While at NTC, the Tomahawks achieved success during urban operations in two of the population centers, Ujen and Razish. The battalion was able to secure both objectives while suffering minimal casualties during both operations. This article discusses some proven methods used to train Soldiers for NTC and how to fight Strykers in urban terrain. The discussion centers around the battalion's training, planning preparation for urban objectives, and the lessons learned from fighting in urban environments from a Stryker platform.

Setting the Team

To understand how the battalion fought at NTC, a description of the battalion's capabilities is required. As a standard Stryker Infantry battalion, 4-23 IN consists of three rifle companies, a headquarters and headquarters company (HHC), and a forward support company. Each company has 16 Strykers task-organized into three platoons with four Strykers each; two Strykers serve as the headquarters element providing mission command, and two more Strykers comprise the 120mm mortars section. Each Stryker has a mounted crew-served weapon, either a M2 machine gun or

a MK19 automatic grenade launcher. The battalion deployed with only 575 Soldiers for the January rotation due to manning shortfalls. This created a significant shortage of available Infantrymen to integrate with the mounted elements with each platoon fielding only one Infantry squad and one weapons squad on average.

The battalion executed a conventional progression of individual weapons qualification, Stryker gunnery, squad/platoon live-fire exercises (LFXs), and situational training exercises (STXs), culminating with company-level force-on-force LFXs. In addition to these training gates, each squad in the battalion refined its Battle Drill 6 skills with close quarters marksmanship (CQM) qualifications and a squad shoot house LFX. This not only certified the battalion to conduct urban LFX operations but also enabled the refinement and establishment of company and battalion standard operating procedures (SOPs) in preparation for NTC.

Getting to the Fight

Prior to departing for NTC, the battalion held a series of leader professional development (LPD) events focusing on topics such as indirect fires, maintenance operations, movement to contact, area defense, and urban operations. Various subject matter experts presented their material and participated in open forums to define battalion SOPs as well as train and certify leaders as part of the eight-step training

Strykers driven by Soldiers with the 4th Battalion, 23rd Infantry Regiment maneuver to the unit's next objective as part of Decisive Action Rotation 16-03 at the National Training Center at Fort Irwin, Calif.

Photo by PFC Deion McBride



model. During these LPDs, the battalion commander (LTC Dan Rayca) established expectations for mission command nodes, reporting requirements, mounted and dismounted maneuver, and SOP development focus areas. The battalion leadership at echelon successfully established effective SOPs on the highlighted focus areas and reinforced them throughout the entire training cycle and deployment to NTC.

During after action reviews (AARs) following the rotation, the senior officer and NCO leadership within the battalion were in agreement that company-level force-on-force training had the most value in preparing each company for the complex operational environment (OE) it experienced at NTC. For this event, 2-2 SBCT reserved approximately 60 square kilometers of training area at Yakima Training Center, Wash. Using Multiple Integrated Laser Engagement Systems (MILES), companies conducted iterations of movement to contact, area defense, and attack against a sister company. Both the battalion and brigade tactical operations centers (TOCs) assisted the companies with replication of fires and enabler support, which facilitated refinement of reporting SOPs at echelon. Additionally, it allowed for senior-level leadership to execute mission command in a decentralized environment. A sister battalion within the 7th ID (1st Battalion, 23rd Infantry Regiment) that had completed an NTC rotation three months earlier provided observer controller/trainer (OC/T) support and facilitated lessons learned from its rotation. Allowing commanders and subordinate leaders to conduct mounted maneuver in terrain similar to NTC and in a competitive environment proved critical. Soldiers were intrinsically motivated for this training because of inter-company/battalion rivalries and were invested in the overall success of their unit. Additionally, many of the commanders felt that this forced platoon leaders to face critical tactical decisions and gain a greater understanding of their roles and responsibilities. Many of the commanders believed that this was some of the best training for synchronizing battalion-, company-, and platoon-level leadership on mission command.

To develop urban operations capabilities, the battalion conducted simunition training at a local military operations on urban terrain (MOUT) site on Joint Base Lewis-McChord (JBLM), Wash.; this served as the culminating training event prior to the battalion deploying to NTC. Each company tailored its urban training to meet the training objectives that had been developed during the close quarters battle LFX. Units



Photo by PFC Kyle Edwards

Soldiers communicate over the radio during a mission at NTC on 18 January 2016.

conducted force-on-force missions and executed squad- and team-level operations to refine skills and establish SOPs.

Concurrently, company-level training occurred throughout the battalion and focused on repetition in order to build muscle memory; tactical physical training (PT) and “sergeants’ time” training focused on the urban fight in order to refine that skill set based on the planned threat. B Company took a unique approach to planned training and developed a training event at the Mission Training Complex on JBLM. Using the programs offered, the company commander war-gamed numerous scenarios with his leaders using tactical decision games around maps in the company conference room; this allowed his platoon leaders to understand his approach to fighting. He believed that this was critical in allowing his subordinates to understand his intent during the actual battle periods. The event also allowed him to evaluate the decision-making processes of his platoon leaders and platoon sergeants and assess their strengths and deficiencies. This allowed him to give broad limits to his subordinate leaders and be confident that they would understand his intent and also allowed him to pair subordinate leaders with missions that enabled disciplined initiative. Additionally, he was able to execute decentralized mission command among his different platoons, which was essential to commanding an urban fight.

Utilizing a 15-day recovery model, the battalion focused on recovery and maintenance during its last critical piece of preparation. In November, the battalion maintenance team executed shift work to facilitate 24-hour operations and brought the operational readiness (OR) rate up to 95 percent prior to departing for NTC. With command emphasis placed on maintenance, subordinate units, maintenance teams, battalion staff, and signal personnel had the opportunity

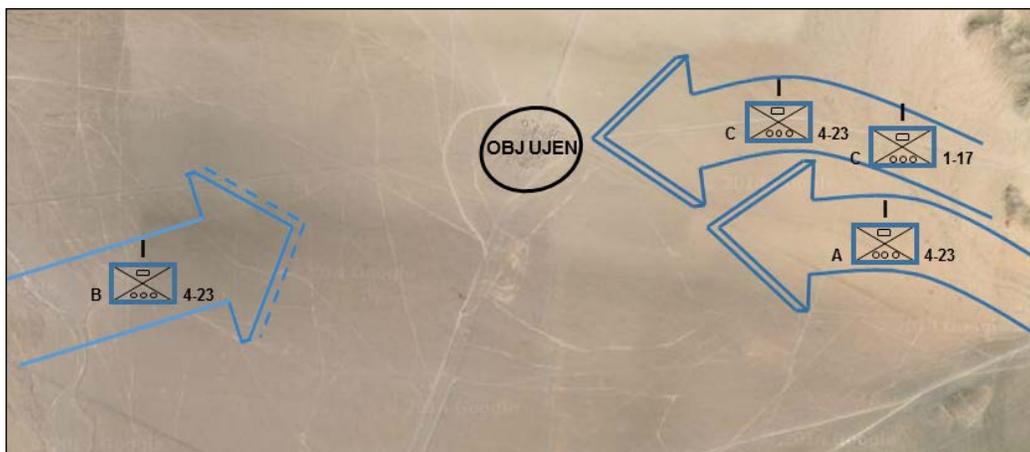


Figure 1

to focus on the details and solve problems that had been overlooked previously as well as leverage additional resources from across 2-2 SBCT and 7th ID. The OR rate of the Joint Capabilities Release (JCR) was critical as it was the most critical communications device in each Stryker. This preparation resulted in a significant reduction of maintenance and communication issues that affected the mission in previous NTC rotations.

The Ujen Fight

Planning and Preparation — The town of Ujen was the battalion’s objective during the third phase of NTC Rotation 16-03. The terrain around Ujen is extremely open in every direction, and there are five high-speed avenues of approach ranging out from the objective. The enemy situation template (SITEMP) consisted of 50-75 enemy fighters within the objective; these fighters were primarily armed with small arms and anti-tank (AT) capabilities. The opposing force’s (OPFOR’s) primary AT weapon was the AT-5 (Russian-made 9M113 Konkurs) with a top range of four kilometers. The S2 section determined that the enemy was familiar with the terrain and would aggressively defend Ujen. For this operation, the task force received an additional infantry company — C Company, 1st Battalion, 17th Infantry Regiment (Chosin).

The battalion was working on an extremely compressed timeline. The battalion commander brought in all of the company commanders and briefly sketched out a scheme of maneuver on a map. The company commanders collaborated and worked with the battalion commander and S3 to synchronize and refine the attack. At 2200, C Company Soldiers would leave their Strykers with a minimal force to secure their position and execute a 10-kilometer

dismounted movement to the objective for a 0300 time on target (TOT) in order to seize a linear foothold on the east side of Ujen. This would provide a “wall” of buildings to protect follow-on forces from AT fire. A Company and Chosin would follow, attacking mounted under the cover of C Company’s foothold. B Company would execute a mounted feint to the northwest of Ujen. Staying out of the range of the AT weapons systems to draw enemy forces west, the company would then

approach Ujen from the east and follow and assume behind C, A, and Chosin companies.

Once C Company secured its foothold on the objective, it would clear up to Phase Line (PL) Cherokee and hold for reinforcements to arrive. A Company Soldiers would dismount their Strykers at a vehicle dismount objective (VDO) north of the objective, conduct a battle handover with C Company, and maneuver to PL Aruaco, with Chosin Company providing the next follow-on forces. Finally, B Company would approach the objective in Strykers from the east, dismount at the VDO, and maneuver to PL Braves. Following this, all units would move to secure the objective and hold for a follow-on mission.

Execution — The companies had very little time to brief their subordinate units but were able to create shared understanding and conduct rapid planning through the simplicity of the operation and effective SOPs. They mitigated tactical risk by executing operations during limited visibility and within hours of arriving to the area of operations (AO), utilizing speed and surprise to full advantage. C Company initiated movement towards Ujen as planned at 2200. At approximately

Figure 2



0245, B Company initiated its feint and successfully drew enemy forces north and west. It was critical that C Company not be identified while maneuvering dismounted towards the objective to prevent heavy casualties from emplaced machine guns. To ensure they were not detected, C Company moved slowly and deliberately with strict noise and light discipline, taking six hours to move the 10 kilometers. Due to B Company's successful feint, C Company surprised the enemy and established a foothold in multiple buildings along the eastern side of the objective. Enemy elements that remained in position then attempted to counterattack C Company's position, and as C Company's forces were culminating in vicinity of PL Cherokee, A Company arrived under the cover of 155mm smoke to follow and assume the advance west.



Photo by PFC Kyle Edwards

Soldiers with 4-23 IN pull security during a mission as part of NTC Rotation 16-03 on 18 January 2016.

A Company cleared to PL Aruaco and held its position until directed to advance further to support operations. Chosin was the next company to arrive and conducted its forward passage of lines with A Company. B Company then moved into Ujen, conducted a battle handover with Chosin and A Company, and cleared the remainder of the objective. Once Ujen had been cleared, the NTC OC/Ts initiated suspension of battlefield effects (SOBE), and the task force prepared for follow-on operations in the town of Razish — the largest population center in the BCT area of operations.

Strykers were used within Ujen as dismounted elements assessed a decreased AT threat on the objective. During this operation, the majority of the Strykers remained in the VDO to the north of Ujen and provided isolation of the objective area non-standard medical evacuation. The Strykers were critical in allowing the three companies to move rapidly into the fight and mass infantry on the objective while providing additional protection and firepower during the fight.

The Razish Fight

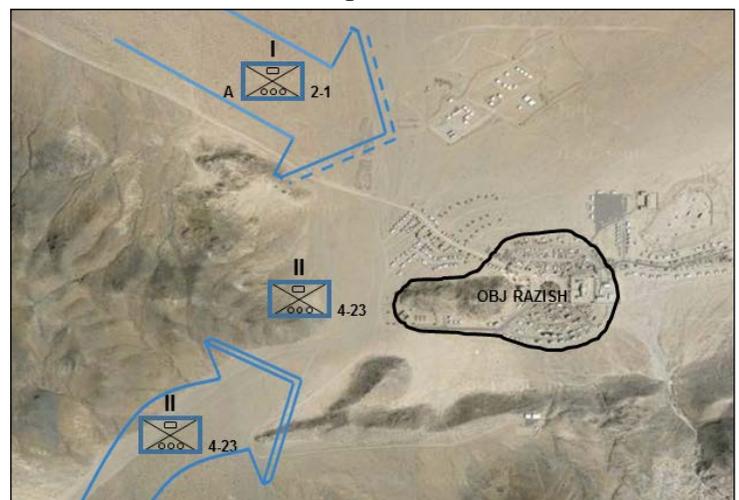
Planning and Preparation — The timeline for Objective Razish allowed for a longer and more deliberate military decision-making process (MDMP) at echelon. The terrain around Razish is different than Ujen, with Razish having canalizing terrain and limited visibility on three sides because of large ridgelines surrounding most of the objective. There is also a large hill mass called the “rock pile” located in the center of Razish which offers clear visibility over the entire objective. The task force identified the rock pile as decisive terrain as it provided any unit that occupied it dominance over the entire objective. Located to the south of the rock pile, the S2 second designated a small prison complex as key terrain as it controlled the main avenue of approach

from the south. Razish had a similar enemy force composition to Ujen with 55-75 OPFOR expected on the objective with AT capabilities. The S2 section predicted that the enemy also had mounted capabilities with 1-3 BRDMs (lightly armored Russian armored personnel carriers) expected in Razish.

As a BCT mission, the 2nd Battalion, 1st Infantry Regiment would be first in the order of movement to conduct an attack from the northwest while the main attack would come from the southwest. B Company would maneuver into Razish from the south, clear the prison, and secure the rock pile. It would then lay down suppressive fire on Objective Aruaco from that location. Once B Company had seized the rock pile, A Company would maneuver to secure Objective Aruaco. Once A Company had secured this objective, C Company would conduct a battle handover and maneuver to clear Objective Aruaco II.

While 4-23 IN cleared the southern half of Razish, 2-1 IN

Figure 3



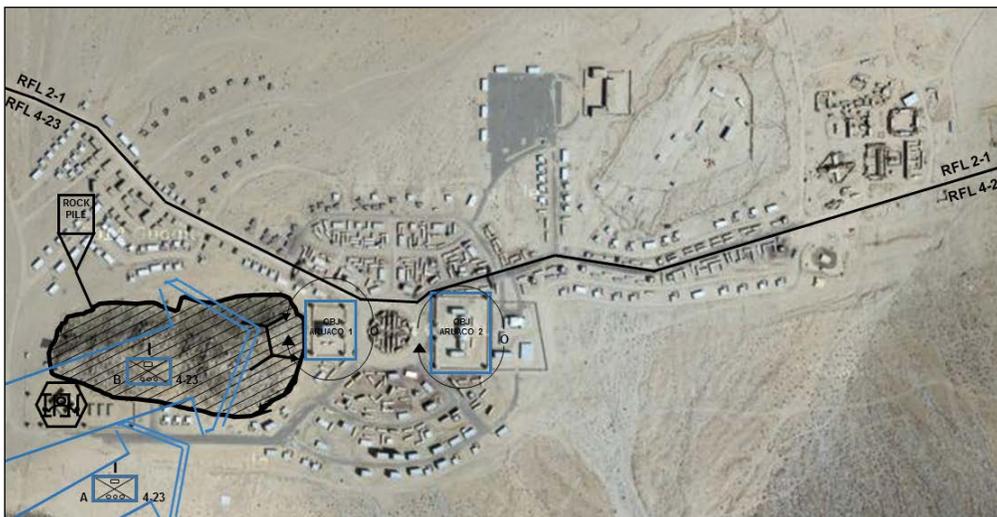


Figure 4

cleared the northern half of the objective. The BCT created a restricted firing line (RFL) dividing Razish into northern and southern halves, allowing both battalions to operate simultaneously throughout the objective.

Execution — 2-1 IN initiated its attack with the majority of the OPFOR in Razish oriented to the northwest when the operation began. B Company maneuvered towards Razish and, using dismounted infantry, cleared through the prison and established a support-by-fire position on the rock pile. B Company identified a BRDM from the rock pile and monitored its movement throughout the mission. A Company then maneuvered to Razish and dismounted its Strykers adjacent to the prison. It was immediately fixed by enemy fire while maneuvering towards Objective Aruaco. Advancing one Stryker up the main avenue of approach, A Company suppressed the enemy and allowed freedom of maneuver for the company. During the fight, the B Company fire support officer employed a Guided Multiple Launch Rocket System (GLMRS) round on the central building in Objective Aruaco, enabling A Company to occupy the complex with minimal casualties. A Company then began suppressing the remainder of Razish, firing below the RFL on the core of city. A Company and C Company commanders conducted a battle handover and began clearing towards Objective Aruaco II. Once C Company had begun maneuvering towards Objective Aruaco II, the NTC OC/Ts initiated SOBE as all enemy fighters were killed or captured.

Enemy indirect fires were effective at destroying some Strykers after the infantry had dismounted. The battalion also lost several Strykers to an anti-aircraft gun mounted on a technical vehicle but overall suffered minimal losses of Strykers. During this operation, Strykers were critical in providing protection and firepower as squads maneuvered through buildings to clear the enemy AT threats ahead.

Lessons Learned

One of the key tactical lessons from both of these phases at NTC was a focus on setting the conditions to allow for

the proper implementation of Strykers. In both of these fights, Strykers were not maneuvered out of cover and concealment until dismounts or enablers had minimized the risk from an AT threat. Examples of this include C Company securing a foothold in Ujen and B Company providing suppressive fire on Razish from the rock pile. In both Ujen and Razish operations, A Company rapidly approached the objective while mounted and engaged the enemy because conditions were set to mitigate the AT threat. This also required time-distance

analysis during planning and tactical patience on the part of commanders during execution (for example, allowing C Company six hours to approach Ujen undetected). This is a drastic change in tempo from what is typically expected in a mounted unit, but it was necessary to allow for the task force to leverage infantry on the objective. By focusing on setting conditions, it allowed the battalion to execute using organic elements and external enablers with an end result of mission accomplishment with minimal casualties.

Another major takeaway involved the unit's focus on the enemy AT capability. Because of the nature of Stryker units, a successful AT attack on a Stryker can make a platoon-sized element combat ineffective; it is up to commanders to understand enemy capabilities and work to mitigate tactical risk. The task force created conditions that allowed it to exploit the inherent advantages of the Stryker, primarily speed and mobility in approaching objectives. By commanders focusing at all levels on understanding and mitigating the enemy's capabilities, successful units are able to exploit the initiative.

The battalion was successful not because of unconventional tactics but because it understood the Stryker and its capabilities and limitations. The Tomahawks did not fight as a heavy armored unit, and they did not function as a light unit; they operated as a Stryker unit. At all levels, the command team understood the strengths and weaknesses of the Stryker platform and tailored training and tactics to capitalize on those capabilities. Therefore, the successes of the battalion can be credited not only to the tactical abilities of its Soldiers but also to the in-depth knowledge leaders had of their own formation.

1LT Kevin P. Bassney is currently serving as the assistant S1 for the 4th Battalion, 23rd Infantry Regiment, 2nd Stryker Brigade Combat Team (SBCT), 2nd Infantry Division, Joint Base Lewis-McChord, Wash. He previously served as a platoon leader in A Company, 4-23 IN. He earned a bachelor's degree in industrial and labor relations from Cornell University and a master's degree in European integration from the University of Belgrade-Faculty of Law. He also received a Fulbright Research Scholarship to Serbia.

THE MARRIAGE OF SCIENCE AND ART: *UTILIZING DOCTRINE TO CONDUCT UNCONVENTIONAL OPERATIONS*

1LT JULIAN D. KIM

The sky is piercing blue and the hot Mojave sun beats down the sweating necks of Comanche Soldiers. Lying in the prone in squad-sized elements across a 500-meter stretch of open desert, they wait in a whirlwind of fine gritty sand for the UH-60s to exfiltrate from helicopter landing zone (HLZ) Cardinal. This was the beginning of the movement phase for an operation that Comanche Company, 1st Battalion, 23rd Infantry Regiment, had never previously executed — one that was planned in its entirety within two days. The company was tasked to secure an American consulate within the town of Razish in order to conduct a noncombatant evacuation (NEO) as part of National Training Center (NTC) Rotation 15-08.5 at Fort Irwin, Calif.

The NEO mission was essential to 3-2 Stryker Brigade Combat Team's (SBCT's) tactical operations to establish the foundation for the upcoming hybrid battle with the insurgent Bilsuvar Freedom Brigade (BFB) and the invading conventional Donovanian Forces. However, the short planning timeline and the fact that the NEO mission was not a METL (mission essential task list) task for a regular infantry company presented Comanche Company with numerous challenges. The question was inevitably asked, "How do conventional Infantrymen conduct an unconventional mission that doesn't fall under their unit's METL?" The rapid planning process and effective execution of the NEO mission can be chiefly attributed to how the operation was approached and handled — the company commander and platoon leaders recognized that the tasks of a NEO mission were not different to that of a raid mission, a METL task that is not foreign to Comanche Company.

According to Joint Publication (JP) 3-68, *Noncombatant Evacuation Operations*, a NEO mission is "conducted to assist the Department of State (DoS) in evacuating U.S. citizens, Department of Defense (DoD) civilian personnel, and designated host nation (HN) and third country nationals (TCNs) whose lives are in danger from locations in a foreign nation to an appropriate safe haven." The NEO mission was conducted in cooperation with representatives of the DoS in order to secure the American consulate located within Razish, and to evacuate American citizens (AMCITs) located within the greater Erdabil Province. The secondary objective of the NEO mission was to build and maintain trust amongst the local Lezgin population that, at the time, was not sympathetic toward the BFB/Donovian Forces nor U.S coalition forces. In order to initiate the planning process, Comanche Company assigned 1st Platoon with the processing of AMCITS, 2nd Platoon with securing the evacuation control point as well as the AMCIT evacuation route to the HLZ, and 3rd Platoon with security of the American consulate. However, early in the planning process, Comanche Company leaders realized the military-political obstacles that were inherent to the NEO mission and acknowledged that the mission was going to be a delicate operation, especially for 3rd Platoon and its security elements. During a NEO, the DoD works in support of the U.S ambassador whose primary concern is to maintain control over the regional geopolitical landscape.¹ In order to comply with the DoS's objectives, Comanche Company needed to

Traveling in UH-60 Black Hawks, Comanche Company Soldiers infiltrate 300 meters northeast of Razish at the start of the NEO mission.

Photos courtesy of author

minimize its military footprint “to maintain a semblance of diplomatic normalcy” within a politically sensitive environment.

Regardless of the limitations that were imposed on the planning and execution of the NEO, the company utilized principles of unified land operations (ULO) in order to create a lethal and adaptive plan that fit both the military and political objectives of the DoS. Though a discussion regarding ULO doctrine merits an article of its own, in essence it “describes the Army’s approach to generating and applying combat power in campaigns and operations.”² Pertinent to the NEO mission, ULO doctrine recognizes that “Army forces do not operate independently but as a part of a larger joint, interagency, and frequently multinational effort;” it is the responsibility of Army leaders to integrate Army operations within this larger effort.³ In order to achieve this level of required integration in an operation that is novel to a regular infantry company, Comanche leaders had to creatively understand, visualize, and describe an unfamiliar problem in order to exercise the military decision-making process (MDMP) and execute troop leading procedures (TLPs). Army leaders repeatedly state and understand that planning is both an art and science.⁴ The company commander and platoon leaders realized that by linking the similarities between the NEO mission and a raid — a common infantry task — the “science” aspect was established as the foundation for further planning. Though the principles of a raid dictated the conditions and key tasks necessary for the NEO, the “art” portion remained for Comanche leaders to adapt the principles of the raid to the NEO mission. Subsequently, certain key characteristics of a raid were deemed applicable to the NEO mission: rapid seizure of a specific objective, achievement of violence through a concentration of firepower and an aggressive posture, collection of priority intelligence requirements (PIR), capture/kill enemy forces, and planned withdrawal.

Comanche Company achieved the rapid seizure of the objective (the American consulate within Razish) through the use of UH-60 Black Hawks and CH-47 Chinooks in order to quickly infiltrate a company-sized element into the town from a direction of travel that was unseen from the enemy’s perspective. At the time of the operation, the main American coalition force was located approximately 20 kilometers to the west of Razish. To ensure swift movement, the company utilized air assault assets to infiltrate an HLZ that was located 300 meters northeast of Razish. The close proximity of the HLZ to the town ensured a quick dismounted maneuver across the open desert terrain that inherently provided security for Comanche Soldiers by minimizing the time of friendly exposure to potential enemy fire. This approach provided a friendly

Army leaders repeatedly state and understand that planning is both an art and science.⁴ The company commander and platoon leaders realized that by linking the similarities between the NEO mission and a raid — a common infantry task — the “science” aspect was established as the foundation for further planning. ...The “art” portion remained for Comanche leaders to adapt the principles of the raid to the NEO mission.

avenue of approach that was both unpredictable to enemy situational templates (SITEMPs) and provided rapid access to the American consulate. Swift maneuver and surprise allowed 3rd Platoon to quickly gain security of the consulate and ultimately preserve the operational momentum for AMCIT evacuation.

Similar to a raid, the hasty security element emplacement allowed the continuation of tactical operations and freedom of maneuver for Comanche Company, DoS personnel, and

AMCITS not only within the consulate but throughout Razish. Though the political, cultural, and societal landscape of Razish severely limited the use of lethal force and aggressive posture, the company was able to emplace key weapon systems at strong points throughout the consulate as well as escalate our security posture in response to the situation at hand. The American consulate is a modest-sized compound measuring approximately 100 meters in length and width. This compound is distinguishable by a vehicle traversable main gate located on the west side, a small foot-traffic gate on the east side, and six three-story guard towers that dominate the corners of the compound as well as the flanks of the main gate. Heavy weapon systems, which include the M240 and AT-4s, were placed on the guard towers and were able to achieve interlocking sectors of fire from mutually supported battle positions (BPs). The towers provided superb cover, concealment, and fields of fire. More importantly to the NEO mission, the covered towers reduced the visual signature of the M240s and AT-4s, which minimized the appearance of American aggression and presented a more palatable security arrangement to the non-hostile protestors. Though the mutually supporting BPs provided security, both near and far, they also served as observation posts (OPs) that provided critical regular reports on the developing situation outside of the consulate walls, providing forewarning to security elements at the main gate.

As AMCITs entered the compound after the establishment of security and evacuation operations continued uninterrupted within the consulate, the Comanche security elements were dealing with a much more amorphous situation at the gate. A large protesting crowd of Lezgins gathered at the front gate of the consulate demanding security and travel visas to the United States. It would have been a simple mission to merely lock down the gate and deny access to all personnel, but it was essential to keep this gate open in order to allow AMCITS to enter the consulate so that they may be processed for movement to HLZ Cardinal for evacuation. Due to the close proximity with the protestors and our inevitable interactions with local Lezgins, enablers such as Civil Affairs (CA) and



A Comanche Soldier addresses the protesting Lezgins as he tries to identify American citizens who are seeking admittance to the consulate for evacuation.

Military Information Support Operations (MISO) were attached to Comanche to facilitate the pacification of the protesting Lezgins. Measures were taken in an attempt to quell the crowd such as broadcasting Arabic messages for civilians to stay in their homes for their safety and English messages for AMCITS to come to the consulate for evacuation. Concertina wire was also used to physically restrict the gate, but it appeared that all these measures had little effect and may even have exacerbated the situation.

Counterintuitively, the most effective technique was not to shun the protestors but to embrace and engage the crowd. Gate guards identified people who appeared to be the key organizers of the protest and engaged them in dialogue, with the help of skilled CA personnel and DoS translators, in order to understand the demands and the circumstances of the protest. This method closely-imitated tactical questioning (TQ) which yielded valuable information that met the PIR for battalion and brigade-level leadership. Through casual dialogue, Lezgin protest leaders yielded information such as recent BFB activity, BFB base of operations, and location of BFB-held territories. Through the gate guards' engagement with the protest leaders, Comanche Company was able to conduct intelligence gathering as well as disrupt the protests by essentially detaching key civilian leaders from the protesting mass. Because protest leaders were being occupied by the Comanche security elements, there was no organizing force that was capable of inciting Lezgin protestors to rush the gate or chant slogans in unison. This disintegration of

organization provided a more manageable security situation at the gate for 3rd Platoon's gate guards.

Likewise, the engagement with the protesting civilians allowed Comanche gate guards to identify suspicious personnel embedded within the protest who were subsequently pulled from the crowd for TQ. These potential militants were either released or sent to a guarded enemy prisoner of war (EPW) collection point within the consulate according to their responses. Additionally, 3rd Platoon security elements encountered those who appeared to be part of the local police force conducting extrajudicial executions of innocent civilians in the proximity of the consulate. Though the platoon leader and the gate guards were successful in securing the first civilian from execution through direct and deliberate confrontation with the vigilante police force, the vigilantes appeared a second time and were successful in publicly executing an innocent Lezgin. We later discovered, through our engagement with the Erdabil Province police chief, that this group of vigilante policemen were in fact BFB who had earlier ambushed and killed local policemen. Each brazen attempt was characterized by the yelling of "Kafir!" (which translates to unbeliever or heretic) and a careless waving and pointing of their weapons at civilians in an obvious attempt to draw our attention and efforts away from the consulate and into the town.

Plumes of flames from improvised explosive devices (IEDs), indiscernible explosions in the distance, and erratic sniper fire were regularly reported by the gun teams in the towers of the consulate in addition to roving unmarked civilian vehicles and suspicious movement in the windows of multiple-story buildings. All of these distractors, in



Gate guards from 3rd Platoon react as an IED is triggered by BFB forces in the town of Razish.

conjunction with the extrajudicial killings, served to draw Comanche Company into the town center of Razish and divert our attention from the main objective. Through the chaos, the company's focus on the evacuation of the consulate and the company's pre-planned withdrawal provided direction and an end-state for Comanche Soldiers. Had the company become decisively engaged outside of the consulate, the combat power protecting the compound would have been overextended and thus debilitated the security around the consulate. Without a timely Comanche Company withdrawal, 3-2 SBCT would have been coerced to become prematurely engaged with enemy forces forward of any friendly lines of support.

The NEO mission yielded a successful evacuation of the consulate along with actionable intelligence for future operations in vicinity of Razish. As a by-product of the effective execution of the NEO mission, U.S. coalition forces created positive relations with the Lezgins which permitted the establishment of the Home Guard, a local pro-American Lezgin guerilla force that assisted in combating BFB forces through the NTC rotation. Though Comanche Company was not trained in conducting a NEO, and no Army NEO publication currently exists, the principles of a raid were utilized to conduct planning and execution. Comanche Company was able to rapidly conduct adaptive planning and troop leading procedures, coordinate an air assault to swiftly secure a point target, establish security, secure friendly forces, fulfill higher headquarter PIRs, and rapidly disengage from the objective through a pre-planned withdrawal.

In summary, a regular infantry company is capable of conducting any operation under the condition that the mission is analyzed in terms that are familiar to an infantry company's METL and ULO doctrine. Characteristics of an offense (surprise, concentration, audacity, and tempo) and of a defense (preparation, disruption, concentration, flexibility, and security) are principles that should not be relegated to simple battle drills but can be applied to any conventional or unconventional military operation. The U.S. Army has already established the science of military



Before bringing him in for tactical questioning, a Comanche Soldier searches a possible militant who was loitering outside the consulate.

operations through doctrine and publications, but it falls upon the disciplined initiative of adaptive and mentally agile Army leaders to creatively tailor doctrine to all lethal and non-lethal military operations through MDMP and TLPs. Army leaders can only hope to understand the full spectrum of military operations and the inexorable fog of war through the marriage of the unfaltering "science" and unpredictable "art" — doctrine and palpable execution. The application of these principles and those of the subtasks of an offense (i.e., raid) and/or defense (i.e., area defense) through the military decision-making process and troop leading procedures ensured victory for Comanche Company in Razish and will continue to do so for any U.S. infantry company regardless of operational requirements and objectives.

Notes

¹ JP 3-68, *Noncombatant Evacuation Operations*, 18 November 2015.

² ADP 3-0, *Unified Land Operations*, October 2011, 7.

³ Ibid.

⁴ Ibid.



Comanche Soldiers lower the flag outside the U.S. consulate in Razish, signifying that the consulate had been evacuated.

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THE STRYKER-TANK COMPANY TEAM

CPT RYAN KERTIS
CPT TOM IBARRA

The essence of the Army Operating Concept within unified land operations is to “win in a complex world.” To meet these complex challenges, the Stryker rifle company must be augmented to increase its lethality and survivability against a near-peer armor threat. Recently, Stryker brigade combat teams (SBCTs) experimented with armor attachments to combine their ability to mass dismounted infantry in an area of operations with armor firepower to better defeat enemy armor and anti-tank weapon systems.

This article explores the experiences of 3-2 SBCT, 7th Infantry Division during National Training Center (NTC) Decisive Action Rotation 15-08.5 at Fort Irwin, Calif. Here, 3-2 SBCT had the unique opportunity of task-organizing tank platoons to a Stryker rifle company within the 5th Battalion, 20th Infantry Regiment. The creation of Stryker-tank company teams provided the brigade commander with a more lethal strike force and created unique opportunities to experiment with maneuver tempo across restrictive terrain and during a combined arms breach. The addition of armor assets significantly increased the company’s sustainment requirements, specifically for Class III and IX, and also presented challenges for breaching operations.

U.S. Army Soldiers from 5th Brigade, 20th Infantry Regiment establish an overwatch position during NTC Decisive Action Rotation 15-08.5 at Fort Irwin on 21 July 2015.

Photo by SGT Matthew Minkema

The Hybrid Formation: The Stryker-Tank Company Team at NTC

FM 3-21.11, *Stryker Infantry Rifle Company*, states that “the SBCT combines the tactical mobility aspect of mechanized units while emphasizing and exploiting the infantry fight where decisive action occurs.” Similarly, it asserts that “the organic vehicles in the platoons are for moving infantry to the fight swiftly” and identifies the significant firepower shortcoming of the Stryker company. The purpose of the task organization during NTC 15-08.5 was to increase the lethality and survivability of the company team against a near-peer threat with significant anti-armor capabilities. As a result, the attached tank platoons provided significant increases in firepower and mobility across restrictive terrain at NTC.

Strykers in the Open

The challenge for a Stryker Infantry company at NTC is moving across open terrain quickly. Since the Stryker is lightly armored and does not have a mounted gun capable of destroying tanks and BMPs (*boyevaya mashina pekhotys* — infantry fighting vehicles), it has a significant disadvantage against enemy armor. One method of overcoming this disadvantage is to dismount Javelin teams in overwatch while bounding another element forward — the dismounted Javelin teams protect the Strykers as they bound. They also use the Fire Support Vehicle (FSV) with the Long-Range



Advance Scout Surveillance System in overwatch which has substantially better observation range.

To alleviate the time constraint of dismounting Javelin gunners, B/5-20 IN employed Javelins from the hatches of the Stryker against enemy armor. This helped offset the enemy's advantage in immediate firepower. This tactic does have its shortcomings though. The best solution continues to be having Javelin teams in overwatch at all times during the maneuver. This is effective but incredibly time-consuming because it requires dismounting Javelins at every intervisibility line.

The Stryker-Tank Company Team

B/5-20 found that the ideal method of moving Strykers safely through open terrain is through a task organization with armor. In this organization tanks provide the necessary firepower to counter the enemy armor threat. The Strykers were extremely beneficial to the tanks by providing infantry to clear restricted terrain and urban areas. The task organization for B/5-20 IN during NTC 15-08.5 included a Stryker rifle company headquarters, one Stryker rifle platoon, two M1A2 tank platoons, and a Stryker sapper platoon.

- The company headquarters consisted of two Infantry Carrier Variants (ICVs), two Mortar Carrier Variants (MCVs), one Medical Evacuation Variants (MEVs), two high mobility, multipurpose wheeled vehicles (HMMWVs), and two light medium tactical vehicles (LMTVs).

- The rifle platoon consisted of four ICVs with three dismounted squads. The dismounted squads were two rifle squads and one weapons squad (at the time manning was insufficient to fill the third authorized rifle squad). The rifle platoon retained the ability to simultaneously employ three command launch units (CLUs).

- Both tank platoons consisted of four tanks each. To support the addition of eight M1A2 tanks, B/5-20 also received one M88A2 recovery vehicle and one team of tank mechanics.

- The sapper platoon consisted of three Engineer Support Variants (ESVs — including one mine clearing plow and one mine clearing roller), three dismounted sapper squads, one mine-clearing line charge (MICLIC), and one Volcano on a load-handling system.

The normal mechanized companion to the tank is a Bradley Fighting Vehicle. In comparison, Strykers carry more Infantrymen than Bradleys, making them even more effective at clearance operations. However, Strykers have less armor, lack the armor-killing weapons, and are wheeled instead of tracked. This caused the B/5-20 commander to modify his maneuver by keeping the Strykers less exposed than he would Bradleys. He also could not use the Stryker itself as an armor-killing system. Lastly, a Stryker cannot maneuver over rough terrain as well as tracked vehicles so the commander chose Stryker routes carefully. Once Strykers arrived to the dismount point, they were able to provide more dismounted infantry and were, therefore, an enormous advantage because they could fight in areas where armor could not.



Figure 1 — Blocking at Three Sisters and Debnam

Employment at NTC

Most offensive operations executed during the rotation were movements to contact. To best develop a simple and bold plan to defeat the enemy, 5-20 IN used a fighting style rooted in a hockey-play concept: fluid maneuver that quickly adjusts to the location of the hockey puck and seamlessly transitions between offense and defense. For 5-20 IN, it enabled the battalion to maneuver in such a fashion that the first company to make contact with the enemy would immediately attempt to fix while the other companies maneuvered to flank and destroy. This flexibility was critical to 5-20 IN serving as the brigade decisive operation and prevented the battalion from becoming mired in rigid plans.

For example, during Battle Period One, 5-20 IN had to be prepared to attack the enemy through one of three different passes: Brown's Pass, Debnam Pass, or Three Sister's Pass. B/5-20 was tasked to secure and/or block Debnam and Three Sister's Passes. All three of these passes are canalizing with high ground on each side of the pass. The task force leveraged its task organization by deploying its armor capability to the widest pass and employing dismounted infantry and javelin teams in the most restrictive pass to maximize each unit's capabilities. This was effective at preventing the enemy from committing combat power to each pass and forced them to bypass to the south. In contrast, a Stryker pure company would need to seize the restrictive terrain before enemy armor was committed to maximize the effectiveness of their javelins. Still, a rifle company has only a certain number of javelin missiles available to adequately delay or destroy a mechanized infantry battalion.

Leaders with 5-20 IN employed the Stryker-tank company team where it was best able to use the open terrain to rapidly move to advantageous positions and employ dismounted infantry. Specifically, during Battle Period Two, 5-20 IN attacked through Brown's Pass to meet the enemy east of Junction City near Hill 876 and the peanut (this area is open terrain with a few hills in the center). While two separate Stryker-tank company teams maneuvered south of Junction City to attack east, B/5-20 maneuvered along the northern wall near

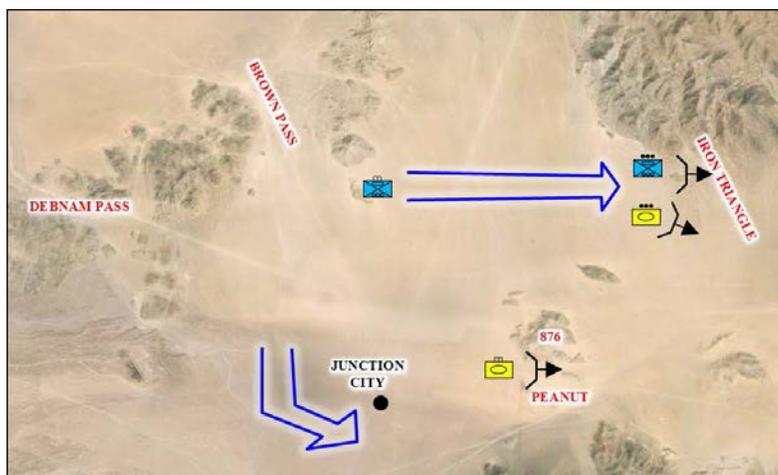


Figure 2 — Overwatch at the Iron Triangle

the iron triangle to establish an attack-by-fire position oriented east-southeast. To maximize its lethality, it deployed its armor capability first, allowing them to lead the company through Brown's Pass north of Junction City (taking care to avoid anti-tank systems) and into the severely restrictive terrain near the Iron Triangle. Here, the tanks assumed a defensive posture at turret defilade while the infantry deployed javelin teams and the FSV established overwatch. From this position, the company team achieved a point of domination with direct and indirect fires over the northern sector of the central corridor.

The Stryker-tank company team also operated effectively in the defense. Task Force Regular occupied battle positions (BPs) in the restrictive terrain north of Siberia, a vast open area with restrictive terrain to its west, north, and east, with the intent of destroying the enemy in an engagement area east of the John Wayne Foothills. The restrictive terrain of the BP did not facilitate tank movement or maneuver, and this was confirmed during both mounted reconnaissance and rehearsals. As a result, it employed the Stryker platoon forward to maximize its ability to conceal itself in the restrictive terrain and employ javelins. The tank platoons were employed to the rear where they could occupy positions that provided natural turret defilade and maximize observations and fields of fire that would provide overwatch for the Stryker platoon during the initial occupation of the BP as well as during the withdrawal to alternate BPs. After withdrawal to alternate BPs, B/5-20 assumed the role as the task force reserve. The tanks allowed the company to become a more effective reserve than a rifle company because it could be committed in a variety of situations, to include supporting adjacent battalions. During the defense, the reserve was committed to block the northern section of Porta Potti Wadi, the eastern border of 5-20 IN's battle position. Here, dismounted infantry seized the restrictive terrain and oriented anti-tank systems south into the wadi as the tanks oriented east to engage enemy armor forces as they moved north from Red Lake Pass.

Raven UAS Employment

The Stryker company is authorized a Raven unmanned aerial system (UAS), and B/5-20 uses the Raven as often as possible. However, the rapid movement of the Stryker-tank

company team reduced the ability and necessity to employ the Raven. Unlike sister companies throughout the brigade that relied heavily on the Raven during more static operations, the speed of the company team was faster than the approval time of an immediate restricted operating zone, and the area the company team can cover with a combination of mounted and dismounted forces did not facilitate employing the Raven. Similar to dismounted clearance, the employment of the Raven is a time-consuming process that is not well suited for armored warfare. For example, during the brigade attack, B/5-20 rapidly moved through Red Lake Pass, avoiding indirect fire and chemical attacks to quickly occupy positions in a wadi system east of the whale. Stopping to deploy the Raven would have forced the company to become static for too long and become susceptible to indirect fire, family of scatterable mines (FASCAM), and chemical attacks. In fact, the contemporary operating force employed a FASCAM in Red Lake Pass that was unsuccessful in blocking B/5-20's movement. This does not mean that the Raven cannot be useful for a unit moving quickly, however. Dismounted infantry still benefit from using a UAS in severely restrictive terrain as well as employing it as a security enabler during assembly area and defensive operations. If the company had been tasked to move through a defile, it could have launched the Raven in conjunction with dismounted infantry.

Challenges

While the Stryker-tank partnership was a good fit in maneuver, the company team experienced challenges with mission command systems. First, the tank platoons were equipped with Blue Force Tracker (BFT) and the Stryker units were equipped with Joint Capabilities Release (JCR). The battalion attempted to build a "bridge" between the systems that would allow FIPR (flash, immediate, priority, routine) messages and graphics sharing but was unsuccessful. This hindered mission command because the battalion relies heavily on JCR graphics for mission planning. The ability for adjacent units to share graphics, plot obstacles and enemy

Figure 3 — Southern Corridor



locations, and use movement control measures is essential for fluid movement and maneuver.

Second, the Stryker company commander does not have survivability to lead and fight with his tank platoons as compared to a tank or Bradley company commander. Thus, he must remain in a covered and concealed position while directing a tank battle. Conversely, a tank company with Stryker platoons attached does not have this challenge, though the JCR/BFT interoperability still remains a mission command shortcoming.

The 5-20 IN anticipated sustainment of the company team being a problem. Stryker rifle companies are intended to be self-sustaining for up to 96 hours while an armor company relies heavily on Class III and IX. Certainly, these requirements can vary based on the mission variables, but many of the constraints associated with armored forces were transparent at the company level for the Stryker-tank company team. The battalion provided a logistics package twice daily. At the battalion level, there were challenges with getting Class IX shop stock and organizing recovery assets, but these difficulties did not affect company operations.

Mobility Support

SBCT engineers have robust mobility assets for Strykers but have difficulty supporting armored forces. The SBCT engineer company consists of combat engineer platoons and one mobility support platoon. Given the significance of tactical mobility to successful attacks, each engineer company is comprised with the ESV. The ESV is designed to neutralize obstacles and mark lanes using their mine-clearing plow, straight blade plow, mine-clearing rollers, and towing a trailer with MICLIC. SBCT engineers' most distinctive capability is that during the combined arms breach, they can reduce, proof, and mark a lane for the width of the Stryker vehicle.

During the NTC Rotation 15-08.5, 5-20 IN was challenged with supporting armor companies with Stryker engineers. Given the differences between the Stryker wheel base and the M1 track base, the SBCT requires force tailoring in order to adequately support the armor formation's base during the breach.

The combat earthmover is a mounted system that mitigates the use of dismounted sappers, but it does not provide the speed required to maintain momentum and lethality during the point of penetration.

With augmentation, the SBCT is a full participant in armor division combat operations. Contingencies requiring armor formations will require that the SBCT be augmented with additional engineer assets such as the following:

- M1 Assault Breacher Vehicle (ABV) is based on a modified M1 chassis and equipped with two MICLIC launchers.
- M1 Mine Clearing Blade is attached to the M1 Abrams.
- M1 Mine Clearing Roller is attached to the M1 Abrams.

Another possible tactic that engineers can use is augmenting the armor formation with two Stryker engineer platoons. By doing this, two ESVs with the mine clearing plows can overlap their lane, creating a wider lane. The risk: if this tactic is used, the maneuver commander then loses mobility capabilities with another maneuver company because two Stryker engineer platoons are already committed to support the armor formation.

Conclusion

The experimentation with this form of hybrid doctrine is beneficial to the Armor, Infantry, and Engineer communities. Rifle company commanders who have the opportunity to lead a unique task organization must learn the capabilities and limitations of attachments and expand their vision of the battlefield. They must pay particular attention to the differences in weapons ranges and the mobility of the systems. For the Stryker-tank company team, the commander must be prepared to use the wide range of capabilities to clear restricted terrain and move quickly in open terrain. Most importantly, however, the toughest challenge is overcoming the lack of communications interoperability. The Stryker company commander must be prepared to radically modify his method of mission command if both units are not JCR.

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U.S. Army Soldiers maneuver M1A2 Abrams tanks to engage enemy forces during NTC Rotation 15-08.5 at Fort Irwin on 18 July 2015.

Photo by SGT Richard W. Jones Jr.



TACTICAL EMPLOYMENT OF THE RAVEN SUAS

CPT CHRISTOPHER J. COLYER

The RQ-11 Raven is an extremely useful collection asset for an infantry company. This small unmanned aerial system (SUAS) provides company commanders with an organic capability that delivers real-time video. This capability is enhanced further by configuring the Raven for mounted operations, which includes launching and recovering the Raven from a moving vehicle. Charlie “Rock” Company, 5th Battalion, 20th Infantry Regiment — a Stryker rifle company in the 3-2 Stryker Brigade Combat Team — experimented with this concept while preparing for and executing National Training Center (NTC) Rotation 15-08.5 at Fort Irwin, Calif. This article will explore the use of the Raven through the lens of the Army’s warfighting functions.

Mission Command. C/5-20 IN placed the Raven operator in the executive officer’s (XO) Stryker. This placed the Raven operator a sufficient distance from likely enemy contact to conduct short halts for pre-flight inspections. Further, co-locating the Raven operator with the XO expedited submission of enemy sighting reports to the battalion and allowed the XO to inform the company’s common operating picture (COP) while the commander maneuvers platoons. Joint Capabilities Release (JCR) competence within the XO’s crew and across the formation also helps ensure the company COP retains shared understanding and communicates operations and intelligence information through another medium.

Intelligence. A tactic C/5-20 IN employed during NTC 15-08.5 involved launching the Raven from a moving Stryker. This gave the company real-time intelligence from the Raven, enabling more expeditious use of the information gathered. This allows the unit to retain situational awareness and make informed decisions with over-the-horizon line of sight after crossing the line of departure. For instance, when the Raven is flown while maneuvering in an attack, the commander can make immediate adjustments to his plan and take more effective action against the enemy.

Movement and Maneuver. Experimentation with employing Ravens to identify threats in front of the formation began at Joint Base Lewis-McChord (JBLM), Wash., on 18-19 May 2015. The goal was to use the Raven during offensive operations without halting the attack. This testing resulted in more than five successful launches of the Raven from a moving Stryker. Using the Raven in this manner allowed the Stryker formation to move in traveling overwatch until the SUAS detected the enemy. The formation then transitioned to bounding overwatch. Since traveling overwatch is much faster than bounding overwatch, a forward Raven dramatically increases the tempo of a Stryker company, allowing it increased freedom of action to seize positions of relative advantage. Due to its



Photo courtesy of author

A Soldier from C/5-20 IN launches a RQ-11 Raven UAS from a Stryker.

light armor, the Stryker has to be more cautious than tanks or Bradleys. This normally means dismounting infantry and clearing every intervisibility (IV) line or every area with restricted terrain. However, by using the Raven while moving, the Stryker formation can continue to move without dismounting infantry. The Raven is therefore able to extend the commander’s visibility past the maximum engagement line of most anti-tank weapons, thereby reducing the company’s vulnerability.

Protection. Employing the Raven from a mobile platform significantly increases mobility and survivability because the system remains mobile, not in a static position susceptible to small arms fire. A static launch site takes time to set-up and break down due to the tripod mounted line-of-sight antenna, which is only designed for ground mounting. During NTC Rotation 15-08.5, C/5-20 IN launched the Raven from the Stryker during the battalion defense and piloted it from the Stryker while displacing from one battle position to another. The company employed a Stryker mounted antenna system developed during the train-up to NTC.

During the movement in the defense, C/5-20 IN received a report from the battalion S2 of a chemical attack to the east of their position that posed a risk for contamination. Since the Raven was launched while on the move, Strykers immediately closed all hatches while still maintaining situational awareness with the Raven. During this incident, the Raven proved useful, allowing the company to visually clear routes until they left the suspected contamination area. This employment technique provided tactical flexibility that could save lives in a combat situation.

Restricted Operating Zone (ROZ). ROZ request challenges can be reduced significantly if brigade planners assume that companies will employ their Ravens whenever possible. Early in the planning process, planners must deconflict airspace coordination measures by time, space, or altitude for all assets operating in the area. Brigade planners who understand how companies use Ravens on-the-move could execute ROZs more like air corridors to provide the companies flexibility while reducing the frequency of ROZ cancellation inherent within a dynamic operating environment.

Employing the Raven from a moving Stryker is very effective and should be pursued by companies in the future. Regrettably, the current ROZ planning timeline does not allow companies to use the Raven as a responsive collection platform. To provide companies better flexibility, 5-20 IN staff developed a reconnaissance and surveillance plan during the planning process and collaborated early with the brigade aviation element (BAE) to plan additional ROZs. This allowed C/5-20 IN to make timely adjustments to the ROZ requests to avoid air space conflicts with pre-established ROZs or air corridors. Raven employment during training events does take more planning and coordination to accomplish, but it must be done in order to maintain proficiency.

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UPDATED ATP 3-21.8 AVAILABLE FOR DOWNLOAD

DOCTRINE AND COLLECTIVE TRAINING DIVISION

The Maneuver Center of Excellence's Doctrine and Collective Training Division announces the recent publication of Army Techniques Publication (ATP) 3-21.8, *Infantry Platoon and Squad*. This new ATP provides techniques for the employment of Infantry platoons and squads of the Infantry, Stryker, and Armored brigade combat teams (BCTs).

The ATP, which was published in April, replaces Field Manual 3-21.8, published in March 2007; Army Tactics, Techniques and Procedures (ATTP) 3-21.71, published in November 2010; and ATTP 3-21.9, published in December 2010. It presents doctrinal guidance; describes relationships within the platoon and squad; defines organizational roles and functions, capabilities, limitations; and describes the responsibilities for platoons and squads during unified land operations.

"This manual consolidates all three organizational Infantry platoons (IBCT, SBCT, and ABCT) into one manual. It will provide a one-stop shop for all Infantry Soldiers, no matter which platform they are operating from," said Bruce Moore, ABCT doctrine branch.

"This new manual combines traditional techniques with current methods developed during operational deployments and at the Combat Training Centers," said COL Marty Barr. "The new '7-8' provides a doctrinal foundation for pre-commissioning sources who organize leader training using the Infantry platoon model, new Infantry leaders, and Soldiers who work with the Infantry."

ATP 3-21.8 is available for download from the Army Publishing Directorate at www.apd.army.mil/ProductMaps/TRADOC/ATP.aspx.

A doctrine supplement, which includes additional digital resources, is also available at <http://www.benning.army.mil/infantry/DoctrineSupplement/ATP3-21.8/>.

The screenshot shows the Army Publishing Directorate's website for ATP 3-21.8. On the left is a navigation menu with a search bar and a table of contents listing chapters from 1 to 8, plus Appendixes A through D. The main content area displays the 'Introduction' page, which includes a header image of soldiers in a combat environment. Below the image, the text reads: 'Introduction to ATP 3-21.8' and 'Army Techniques Publication (ATP) 3-21.8 encompasses techniques for the Infantry platoons and squads of the Infantry, Stryker, and Armored brigade combat teams (IBCT, SBCT, and ABCT). It replaces Field Manual (FM) 3-21.8, published in March 2007; Army Tactics, Techniques, and Procedures (ATTP) 3-21.71, published in November 2010; and ATTP 3-21.9, published in December 2010. ATP 3-21.8 provides doctrinal guidance; describes relationships within the platoon and squad; defines organizational roles and functions, capabilities, limitations; and lays out the responsibilities for platoons and squads during unified land operations. The Infantry platoon and squad is an all-weather, all-terrain unit. Against this backdrop, the Infantry platoon and squad must be ready to adapt to various levels of conflict and peace in various environments. This requires bold, aggressive, resourceful, and adaptive leaders—leaders of character, competence and commitment—who are willing to accept known risks to accomplish the mission. Infantry leaders must use their initiative and make rapid decisions to take advantage of unexpected opportunities. This publication addresses the significant changes in Army doctrinal terminology, concepts, and constructs and proven tactics, techniques, and procedures (TTT). The following paragraphs provide a summary by chapter. Chapter 1 – Organization: Provides a brief description of operational environments for Infantry platoons and squads. An overview of the Army's operational concept of unified land operations, operational structure, and law of war, rules of engagement (ROE), and combat power. Addresses the role and organizational characteristics the Infantry platoon and squad as trained to conduct offensive, defensive, and stability tasks.

UKRAINE'S VOLUNTEER BATTALIONS

MAJ MICHAEL COHEN
SSG MATTHEW GREEN

Ordinary Ukrainians taking up arms to defend their country is nothing new. Ukraine has spawned several movements of irregular fighters throughout the last century. To fully appreciate this, we must examine Ukrainian history further back than 1991, the year that the USSR dissolved into 15 independent countries. During the brief existence of post-World War I independent Ukraine, irregular fighters including the “Free Cossacks” successfully aided Ukraine’s military leaders in frustrating Russian Bolshevik attempts to conquer Ukraine until 1921. During the street battles in Kyiv between the Ukrainian People’s Republic and Bolshevik forces in 1918, Bolshevik Commander V. Antonov considered the Free Cossacks to be among the Ukrainian Republic’s fiercest and most loyal fighters.¹ From 1942 until roughly 1956, the Ukrainian Resistance Army (UPA in Ukrainian) fought a long insurgency against Poland, Germany (WWII), and the Soviet Union without any external support. Using a combination of tactics borrowed from neighboring militaries, iron discipline, effective organization, and tight operations security (OPSEC), the group managed to inflict a higher mortality rate on Soviet soldiers and security officers than did the Soviet-Afghan War.² The red and black flag of the UPA can still be seen in many parts of West Ukraine today and has been adopted by some contemporary paramilitary formations to include Right Sector.

Background on the Current Crisis

In April of 2014, Russia illegally annexed the Crimean Peninsula from Ukraine after an unrecognized referendum and an unacknowledged (at the time) Russian military intervention. Ukraine’s armed forces in Crimea quickly found their bases cut off or stormed by Russian troops but did not use force to oppose Russia’s actions.³ When armed, masked men started seizing government buildings in eastern Ukrainian cities in April, many observers expected a quick repeat of the Crimea scenario. Certainly, no armed resistance was met by the pro-Russian forces in the beginning. In fact, the true situation on the ground was even worse. According to the Ukrainian interior minister, up to 70 percent of police in the region had allowed or actively assisted the building takeovers.⁴ Eyewitnesses in Kramatorsk told journalists about how patriotic crowds gathered outside the city administration building to try and prevent its occupation by separatists. The police gave up the building anyways in cooperation with the heavily armed fighters once they arrived. Within a couple of days, the police were back at work, now following the orders of separatist authorities. At the Kramatorsk Airfield, outside the city, the local military garrison consisting of conscripts put up a sustained fight to defend the strategic object from repeated separatist attacks but were not prepared to attempt a storm of their occupied home city.⁵ Perhaps due to the low

public support that the separatists had in eastern Ukraine, or perhaps with the benefit of hindsight after seeing what happened in Crimea, groups of patriotic Ukrainians stopped waiting for the authorities to act and started to take matters into their own hands to actively fight the separatists.

Holding the Line

In the eastern Ukrainian city of Dnipropetrovsk, one of the first to take decisive action was the regional governor and billionaire businessman Ihor Kolomoiskiy. With permission from the Ministry of Interior, he put \$10 million of his own fortune into the creation of a battalion of volunteer fighters to keep the separatists from taking over the city in April 2014.⁶ Many of those who initially signed up were recent participants in the demonstrations on Maidan.⁷ The unit Kolomoiskiy equipped and funded, Dnipro 1, can largely be credited with preventing the city’s fall into the hands of the separatists. Dnipro 1 took up positions along major avenues of approach into the city to block the movement of separatists from the east. Additionally, battalion fighters performed presence patrols in the city and protected key government buildings. The unit also participated in operations outside of the city, allegedly burning a police station in Mariupol (and those inside it) to the ground while assisting another volunteer battalion (Azov) with retaking that city from separatists.⁸

Other volunteer battalions, including some of the more well-known ones, were created not long after. Donbas, composed mostly of natives of Donetsk and Luhansk, was formed in April 2014 and adopted by the Ukrainian national guard.⁹ Azov, a controversial battalion formed and led by radical far-right figure Andriy Biletskiy, was adopted by the Ministry of Defense in May.¹⁰ Aidar and other battalions followed quickly in June. By October 2014, more than 44 territorial defense battalions, 32 special police battalions, three volunteer national guard battalions, and at least three pro-Ukrainian unregulated battalions that answered officially to no one (Right Sector’s “Volunteer Ukrainian Corps”) had been stood up in Ukraine.

Equipment and Training

Initially, the volunteer battalions had to fight with what they had on hand. Uniforms were usually donated collections of mismatched camouflage patterns from different militaries around the world. The weapons used by battalions were as varied as the uniforms. Dnipro 1 was initially handed a collection of 300 AK-74 rifles, 30 M-16s, and crew-served weapons of different types and calibers. Donbas initially made do with old sniper rifles, hunting rifles, pistols, and some rocket-propelled grenades (RPGs). When the battalions were being formed, the question of arming them from government stores became a heated struggle between the Interior Ministry

(in favor) and the Minister of Defense (opposed the idea).¹¹ Many battalions went into battle ill-equipped against Russian-backed separatists in terms of ammunition and weapons. The Azov Battalion worked out a barter system with Ukrainian border guards and received weapons and ammunition through those channels, but other units like Shakhtarsk initially had no weapons with which to arm their fighters. In a reversal of the story portrayed by Russian propaganda, which stated that separatists were using captured Ukrainian equipment, some battalions such as Aidar and Azov ended up using captured Russian armored vehicles and tanks in their operations. With time and as more volunteer battalions were adopted by Ukrainian government ministries, arms and equipment began to arrive to the battalions.

Supporting the battalions logistically was initially a serious challenge for the Ukrainian government, and social media proved a method of grass-roots funding and assistance. Unit Facebook accounts and web pages solicited donations and sought volunteers, and people contributed in large amounts. Approximately 60-70 percent of funds required by the battalions were provided by private contributions. Volunteers provided medical assistance, meals, equipment, and items purchased both domestically and abroad. Offices were established in many cities to coordinate assistance. Many of these offices, especially in Kharkiv and Odesa, later became targets of bombing and arson attacks blamed on pro-Russian terrorists.

In the beginning, training for the volunteer battalions was mostly a secondary thought. Training varied greatly between the battalions, which were largely responsible for instructing their recruits. Some volunteers came with experience from prior military service in Soviet and Ukrainian forces, and volunteers with prior service arrived from other countries in the former USSR and elsewhere as well to help with training the inexperienced fighters. Azov drew in part upon foreigners with prior service from Europe (from Sweden, for example) for training, and boasted that its fighters received more time training with a weapon than recruits in the Ukrainian conventional forces.¹² In contrast, Aidar volunteers received a week of training before seeing combat for the first time, and those of Donbas initially received training over a couple of days at most. Units such as Donbas eventually hired foreign instructors on their own to try and raise their combat effectiveness.¹³

Culture of the Battalions

By conventional standards, the environment of the battalions could have been seen as seriously lacking in discipline. Ranks, if anyone had them, didn't command much authority on their own. Charisma, experience, and the ability to lead in combat were more important to the volunteers. Commanders didn't refer to themselves by their ranks, most of which had been given to them by either the Interior Ministry or Ministry of Defense shortly before but instead referred to themselves by position. For example, a battalion commander typically referred to himself as "KomBat," and company commanders

referred to themselves as "KomRota" (rota means company in Russian). When they had to work with regular Ukrainian forces, volunteers often joked sarcastically about how Ukrainian officers slept in comfortable, air-conditioned tents while soldiers slept under the stars.¹⁴ The volunteers all lived more or less under the same conditions, without regard to rank. The mismatched uniforms and beards of many of the volunteers also shocked some regular officers and soldiers who worked alongside them. What the volunteers may have lacked in conventional discipline and tactical proficiency, they made up in will to fight.

The potential to fight the separatists was a powerful draw to the battalions, especially for those who otherwise could not officially join the fight. Alyona, a 21-year-old female in the Shakhtarsk volunteer battalion, initially joined the Ukrainian national guard, but said in an interview: "That was roadblocks and checking documents. I wanted to fight."¹⁵ Women in volunteer battalions, in contrast to the regular Ukrainian armed forces, took an active part in combat. In the Shakhtarsk battalion, women and men ate together, shared living quarters, and fought side by side. Donbas formed an all-female combat unit in the summer of 2014, and informed volunteers that standards and requirements would remain the same as for men.¹⁶ Many of the women fighters, such as one interviewed from Aidar, had been protesters on Maidan in Kyiv and left with their friends to fight in the east when the time came.¹⁷ Having shared the experience on Maidan together with their male friends, they couldn't imagine not going east with them. The combat performance of women in the volunteer units even re-energized a larger societal debate in Ukraine about whether or not to allow female conventional soldiers into combat roles. The arguments for were readily at hand and already coming from experience in east Ukraine.

Performance

From the beginning, volunteer battalions were on the front lines often ahead of the regular units they were doctrinally supposed to follow and support. They conducted reconnaissance behind separatist lines, called for and adjusted fire from conventional artillery units, and carried out skirmishing to test the strength of separatist positions. The battalions were often indistinguishable from separatist units, and Donbas successfully passed themselves off as separatists in their escape from the Ilovaisk Massacre in August 2014. Against similarly armed and trained separatists, the battalions successfully cleared towns and villages in the east after intense but short bouts of urban combat. The volunteer battalions took heavy casualties, and senior officers and NCOs were out front and frequently among the wounded, killed, and captured as unit pages and Facebook accounts attest. In the Battle of Ilovaisk, for instance, the commanders of the Dnipro, Donbass, Kharkiv, and Kherson battalions were either killed or wounded in the fighting.

Ilovaisk Massacre

By mid-August 2014, much of the separatist-held areas had been recaptured, lines of communications between Donetsk

and Luhansk had been severed, and the self-proclaimed separatist republics were facing imminent defeat. Led by the Donbas, Dnipro, and Azov battalions, Ukrainian forces entered the city of Ilovaisk in the early morning of 19 August and raised the Ukrainian flag over the city administration building. Intelligence estimates had predicted limited resistance from small elements of separatist fighters — after all, the war (technically an anti-terrorism operation) was considered almost won. After a day's worth of urban fighting, approximately half the city was under Ukrainian control. Fighting unexpectedly intensified later on the 20th, and Ukrainian forces in Ilovaisk settled into hasty defensive positions amidst repeated separatist counterattacks. From 24-26 August, separatist fighters, assisted by Russian regular military units which had recently crossed the Ukrainian border, encircled the city and prevented the arrival of Ukrainian relief elements.¹⁸ A withdrawal of forces was negotiated with, and quickly broken by, the Russians and separatists surrounding Ilovaisk. Retreating columns of volunteers and Ukrainian regulars were canalized into prepared kill zones and ambushed, sustaining tremendous losses. As of 21 August, 25 percent of all volunteer battalion losses in the fight in the east had occurred at Ilovaisk.¹⁹ That figure from the Interior Ministry was calculated before the withdrawal-turned-deliberate-ambush had taken place.

After the Battle of Ilovaisk, the tide had definitely turned in favor of the Russians (saying separatists would be untrue, since by this time most fighters were either Russian volunteers or Russian active military).²⁰ Rounds of intense blame-laying and finger-pointing ensued between the commanders of the volunteer battalions, the active military leadership, and the politicians. For their part, the volunteer commanders blamed the Ministry of Defense and Ministry of Interior leadership for failing to send promised relief to fighters trapped in Ilovaisk. Important to note, however, is that most of the volunteer battalion fighters ordered to fight in Ilovaisk failed to show up in strength (or show up at all), and that one battalion (Priкарпатиya) allegedly broke and ran under fire, collapsing a key flank during the battle.²¹ Some volunteer commanders expressed the opinion that they had been racing to capture towns and villages at breakneck speed on the orders of officials back in Kyiv attempting to take credit for winning the fight. They argued that the intelligence which led to their assault on Ilovaisk had been faulty, and the predictions of success premature. Optimism, in other words, had adversely affected the plan. Official inquiries followed for months afterwards, blame continued to be apportioned, and the Ukrainian Minister of Defense was even replaced after the battle. None of these actions could change the result of the battle itself, however. The high tide of the volunteer battalions had receded. The fighting would assume a much different face from then on. The volunteer battalions, although still taking part in fighting the battles to come, would become expanded and professionalized into altogether different fighting forces than they had once been.²²

Conclusion

In the aftermath of Ilovaisk, it is tempting for critics to

highlight the deficiencies of the volunteer battalions. Their indiscipline, poor equipment, lack of standardized training, uneven integration/cooperation with regular forces, and political activism (and in the case of Azov, repugnant far-right ideology) come under frequent attack. When faced with trained and equipped conventional forces, such as at Ilovaisk, the volunteers proved a less-than-equal match. Added to this list can be allegations of corruption, smuggling, and looting, which have hounded some battalions such as Shakhtarsk (disbanded as a result) and Tornado. Right Sector, which resisted subordination to Ukrainian control until the very end, wound up in a shootout with Ukrainian police in west Ukraine in July 2015 that many allege was over control of illegal cigarette smuggling routes.²³ All of that aside, the Ukrainian volunteer battalions need to be given due credit for their accomplishments. They rose to fight for Ukraine when Ukraine's military could not do so in a coordinated fashion (paralyzed by a rapid change of government and fast-moving events on the ground), fought the separatists using similar tactics and equipment, and sent a message to Russia that ordinary Ukrainians were willing to take up arms to defend their land. Most crucially, the volunteer battalions bought Ukraine time. Ukraine had time to complete several waves of mobilization, time to reorganize its interior and military forces after a long period of neglect, time to conduct reinvigorated training, and time to clean traitors from its military and civilian ranks. Ukraine had time for international sanctions to begin to bite Russia and time for locals in Donetsk in Luhansk to begin to regret what the Russians and separatists had brought them.²⁴ They held the line and prevented further destabilization and occupation of further Ukrainian provinces. They showed that the last line of defense in any country is a loyal citizenry willing to take up arms in its defense.

Notes

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Lessons from the Past



A LEGACY OF PRINCIPLES AND LEADERSHIP: DECISIVE VICTORY AT COWPENS

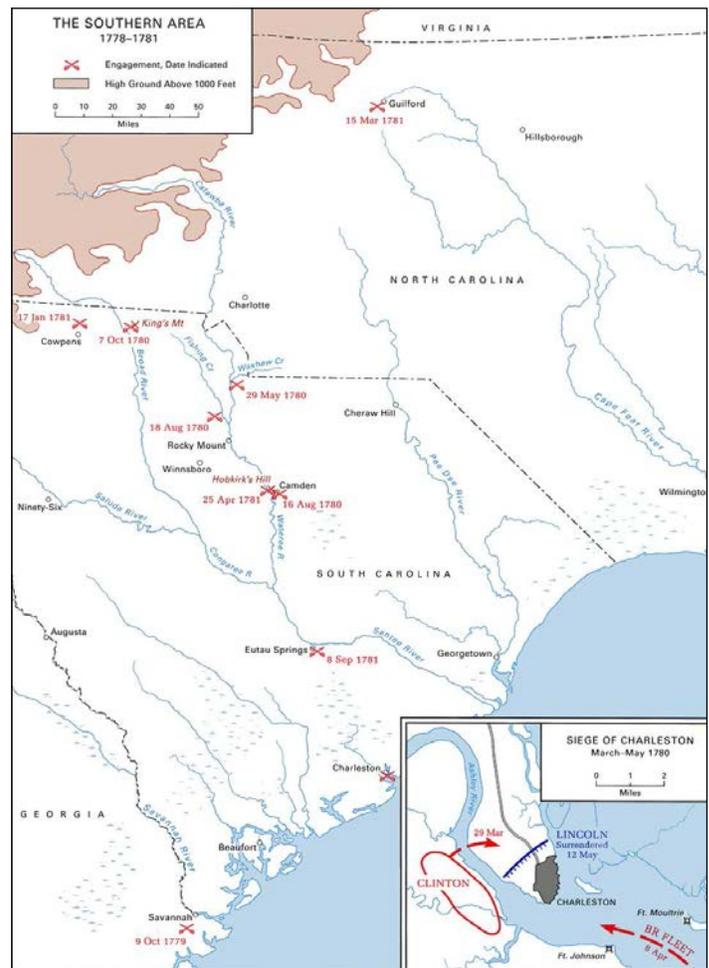
CPT BRADY DEARDEN

In his renowned treatise *On War*, Carl von Clausewitz identified three specific factors which “produce decisive advantages” at the tactical level: surprise, the benefit of terrain, and concentric attack.¹ Beginning his professional writings just three decades after the American Revolution, it is probable the famous Prussian studied the battle of Cowpens, a decisive American victory which exemplifies all three of his prescribed tactical factors. Whether or not Clausewitz studied Cowpens stands conjectural, but the battle unquestionably represents a lesson in the sound application of warfighting fundamentals. Decisions based upon core tactical principles enabled an outnumbered detachment of American regular and militia forces to route a highly experienced British combined arms unit at a pivotal moment in the American Revolution. The battle’s legacy continues to the present — a powerful reminder of the roles maneuver, firepower, and engaged leadership play in determining war’s victors. Most importantly, as understood through the strategic, operational, and tactical levels of war, American success at the Battle of Cowpens illustrates the effective application of doctrine as seen through characteristics of the defense and the use of mission command.

Background

At the strategic level of war, the American Revolution developed into a stalemate in the northern colonies by the fall of 1778. Retreating to the safety of defensive positions in New York City, the overall British commander of the war, Lieutenant General Sir Henry Clinton, decided to shift the war’s focus to a new theater in order to take advantage of supposed Loyalist sympathies in the southern colonies.² In pursuit of this new strategy, he ordered Lieutenant Colonel Archibald Campbell to sail and capture the influential city of Savannah. Campbell and his combined arms invasion force routed American forces at Savannah in late December 1778. In a foreshadow of battles to come in the southern colonies, the British Redcoat’s professional military experience enabled them to infiltrate and capture the city with only 26 casualties as compared to 550 Americans killed or captured.³

Following Savannah, the British continued to militarily dominate the southern colonies. In October 1779, they successfully defended Savannah against a combined

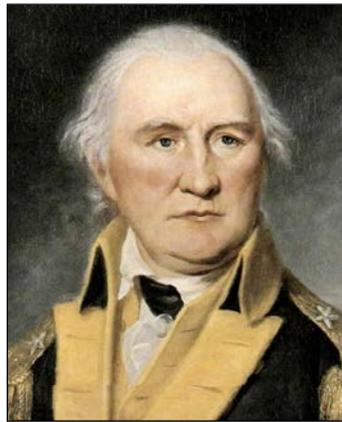


American Military History Volume 1, *The United States Army and the Forging of a Nation, 1775-1917*

Map 1 — The Southern Area, 1778-1781

American and French force which outnumbered the British by a ratio of more than two to one. The British inflicted several hundred casualties during the assault, and the Americans and French were not able to penetrate the defensive fortifications hastily erected against the surprise attack.⁴ Six months later, the British led an expedition to occupy the city of Charleston. Although an American garrison of more than 5,000 Soldiers led by Major General Benjamin Lincoln defended the city for over a month, the city was eventually surrendered on account

of a lack of supplies for both Soldiers and civilians in the city.⁵ The surrender has been noted as the greatest American defeat of the revolution. American morale, however, fell even further three months later in August 1780 when General Charles Cornwallis thoroughly defeated General Horatio Gates, victor of Saratoga, during the Battle of Camden. Although relatively equal in strength, once more the British outmatched their opponents and routed the Americans, forcing Gates to flee for his life.⁶



Morgan



Tarleton

At the **tactical** level of war, the British employed a highly experienced combined arms team. In addition to the regular infantry and cavalry complement of the British Legion, Tarleton also received reinforcements in the strength of three light infantry companies (flagged under the 16th Regiment, the Prince of Wales Loyal American Volunteers, and an impromptu company of local Loyalist guides) and

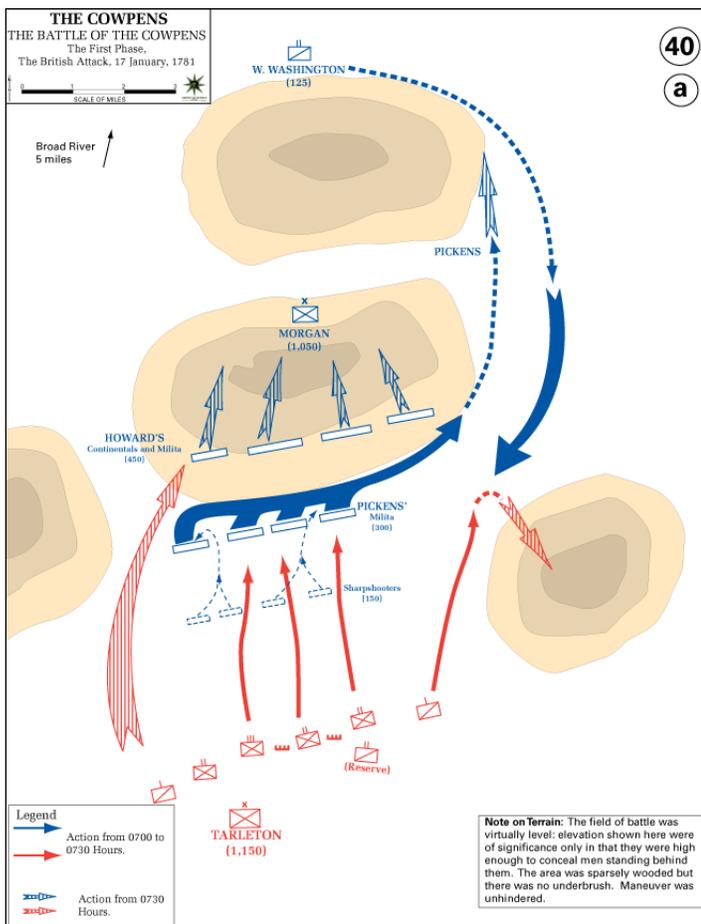
two battalions of regular infantry (flagged under the Royal Fusiliers of 7th Regiment and the Royal Fusiliers of 71st Scottish Highlanders). Additionally, the unit also included a royal artillery battery with two brass cannons and 60 rounds of shot, and a troop of cavalry (flagged under the 17th Light Dragoons).¹⁰ In total, Tarleton commanded approximately 1,100 soldiers.¹¹ Standing in opposition, American strength comprised 300 continental infantry from Maryland and Delaware, approximately 100 continental light dragoons, 250 Virginia militia, 150 militia from North and South Carolina, and 150 militia from Georgia.¹² American strength totaled approximately 800-1,000 continental and militia forces.¹³

The Battle

At the **operational** level of war, key terrain and weather played a critical role in the development of the battle. Dispatched by Major General Nathaniel Greene, the new commander of American forces in the southern colonies following Gates' defeat, General Daniel Morgan led his Army from east to west across the front of the British army led by Cornwallis. The majority of British forces were located in the general vicinity of Winnsborough, S.C., and advancing towards Charlotte, N.C. Morgan moved to position himself on the left flank and rear of the British army, posing a threat to Cornwallis' advance and lines of communications, endangering the British outposts of Ninety Six and Augusta which were crucial to maintaining British Loyalist support, and encouraging western South Carolina militias to aid the American cause.⁷ Cornwallis moved to address these threats by dispatching the British Legion to parry Morgan's maneuvers. Commanded by the young 26-year-old Lieutenant Colonel Banastre Tarleton, the British Legion comprised approximately 550 men in a half cavalry, half infantry quick-strike and reconnaissance force.⁸ Heavy rains in the area turned creeks and rivers into dangerous barriers to movement. In particular, the Pacolet River to the south of Morgan's army and the Broad River to the north developed into unfordable boundaries which limited maneuver options for the Americans. The British Legion unexpectedly crossed the Pacolet River during the darkness of night on 15 January. Now within six miles of Morgan's camp, the Americans retrograded northward to a large clearing and pasture known as the Cowpens. At first contemplating the possibility of removing to the north side of Broad River, the American columns stopped at Cowpens, five miles short of the river's crossings. If the British were to attack while the Americans tried to ford the river, a difficult and costly withdrawal would result. However, with sufficient room to maneuver and the ability to select a battle site of their own choosing, the Americans had much to gain from selecting Cowpens as the field of contest. Assessing his options for movement and fighting, Morgan chose the latter on the night of 16 January.⁹

In further discussion of the tactical level of war, the micro terrain of Cowpens played a significant role in preparation for and execution of the battle. At the southeastern end of the clearing from which the British entered the battlefield, the wooded terrain opened to a grassy plain in a width of approximately 200 meters. The field widened as it stretched to the northwest, reaching around 250 meters at its widest point in the middle of the field. In terms of elevation, the terrain gently sloped upward towards the middle of the field. A small, almost imperceptible, crest in the middle of the field offered excellent concealment for Morgan's main line of defense. Approximately 150 yards behind the first crest of the field, a second crest (and the highest point of the battlefield at 990 feet), offered a secondary location of advantageous concealment which Morgan could use to shield his forces. The field gently sloped downwards from this second crest for 700 meters to a ravine running parallel to the American line of battle, northeast to southwest. Beyond the ravine, the swollen Broad River lay five miles to the north, preventing an American withdrawal if the battle turned unfavorable.¹⁴

After marching since 0300 that morning, the green-jacketed dragoons of the British Legion, the vanguard of the British force, approached the edge of the Cowpens' clearing around 0700 on 17 January 1781. The morning was clear and slightly cloudy.¹⁵ Four hundred yards into the clearing, an American skirmish line of approximately 100 militia hid behind the coarse, thick wild grass and occasional hardwood tree.¹⁶ Morgan had established this skirmish line so that separate state militias spanned the Green River Road, which ran the



Map 2 — Battle of Cowpens, The First Phase

longitudinal axis of the field. He placed the Georgians on the left side of the road and the Carolinians on the right.¹⁷ His orders to these mountaineer sharpshooters were twofold. He first instructed them to wait until the enemy was within “killing distance,” approximately 50 yards, and then fire two well-aimed rounds. Second, he directed the skirmish-line militia to shoot “at the men with epaulets,” a tactic he had used to great success at Saratoga.¹⁸ Following two shots, Morgan instructed the skirmishers to fall back to the first main line of defense, 150 yards to the rear at the base of the first crest of the field. On this line, the influential citizen-Soldier Andrew Pickens of South Carolina commanded approximately 200-300 additional Georgian and Carolinian militia. Pickens’ troops received the same orders as the skirmishers, with one alteration. After firing two rounds, the militia were to withdraw to the rear in orderly fashion around the left flank of the American second main line and move to a secure rally point in the rear of the American formation.¹⁹ One hundred fifty yards to the rear of the militia line, Morgan populated the top of the field’s first crest with 200 men of the Virginia militia and 300 continental regulars from Maryland and Delaware. Commanded by Colonel John Howard, a highly regarded officer, the Americans in this main line of defense formed two ranks covering a span of 200 meters, almost the entire width of the clearing.²⁰ Approximately 100 meters to the rear of the American second main battle line and behind the

second crest of the field, Morgan placed his reserve — the 100-man strong contingent of continental dragoons under the command of Colonel William Washington. An additional 40 militia on horseback strengthened Washington’s numbers to help repel a cavalry assault from the British Legion.²¹

The British eagerly attacked into this array of American forces. As soon as the lead elements of the British Legion reached the edges of Cowpens, Tarleton moved to the front to survey the battle. He observed the first American skirmish line and immediately ordered 50 dragoons forward to disperse the skirmishers. Charging forward, the British dragoons moved forward into the engagement area of the mountaineer sharpshooters, and 15 of the 50 dragoons fell wounded from their horses. In disarray, the dragoon element withdrew to the main British line.²²

As this first action of the battle occurred, two simultaneous events happened which played an important role in shaping the fight. First, as the dragoon’s charged forward, Tarleton hastily deployed his line of battle. Without conferring with any of his officers, he set up his forces in a diversified yet tenuous combined arms posture.²³ From his right to left, he emplaced the following forces: 50 dragoons, his three light infantry companies fighting as one battalion, one of two three-pound brass cannons, the infantry contingent of the British legion, the second of two three-pound brass cannons, the Royal Fusiliers of 7th Regiment, and 50 dragoons. In reserve behind his main battle line, he formed the remainder of the British Legion cavalry and the Royal Fusiliers of 71st Scottish Highlanders.²⁴ Second, as the American sharpshooters faithfully discharged two rounds, they displaced to the first main battle line at the base of the field’s first crest. Tarleton observed this withdrawal and, in accord with his battlefield history and temperament, saw an opportunity to gain the momentum with Americans in retreat. He ordered a general frontal assault of his infantry forces even though the left of his line had not finished emplacing.²⁵

As the men of the British line moved forward into action, they shouted in strength at the American lines. The Americans shouted back in return, Morgan himself riding among the lines encouraging his Soldiers to return the greeting. He and other American officers also reminded the militia and regulars to hold fire until the British were within approximately 50 meters.²⁶ The militia held fast and when the British line reached the appropriate distance, 300-400 American rifles opened fire at once. A majority of the British officers leading their lines from the front fell dead or wounded. The British line stumbled, but after a moment of recovery, immediately reformed. Preferring to close with the enemy and fight by hand, the British charged forward with bayonets flashing in the sun.²⁷

At this point in the battle, three nearly simultaneous events occurred. First, the American situation turned into half orderly maneuver and half chaotic withdraw. According to the original battle plan, many of the militia dutifully stood and fired two or three shots and followed Pickens in the planned withdrawal around the left flank of the American second battle line. Many militia, however, took to flight from the battlefield after one

shot, and multiple American officers feverishly rode to the rear to stem their flight and rally them to action.²⁸

Second, as the American militia withdrew from the first American battle line, Tarleton believed he observed a beaten American force beginning to break apart. To capitalize on the withdrawal occurring on the American left flank, he ordered the 50-man strong dragoon contingent on his far right flank to turn the retreat into a route. As the British dragoons charged forward, Washington under his own initiative ordered the 100-plus reserve of dragoons forward to repel the assault.²⁹

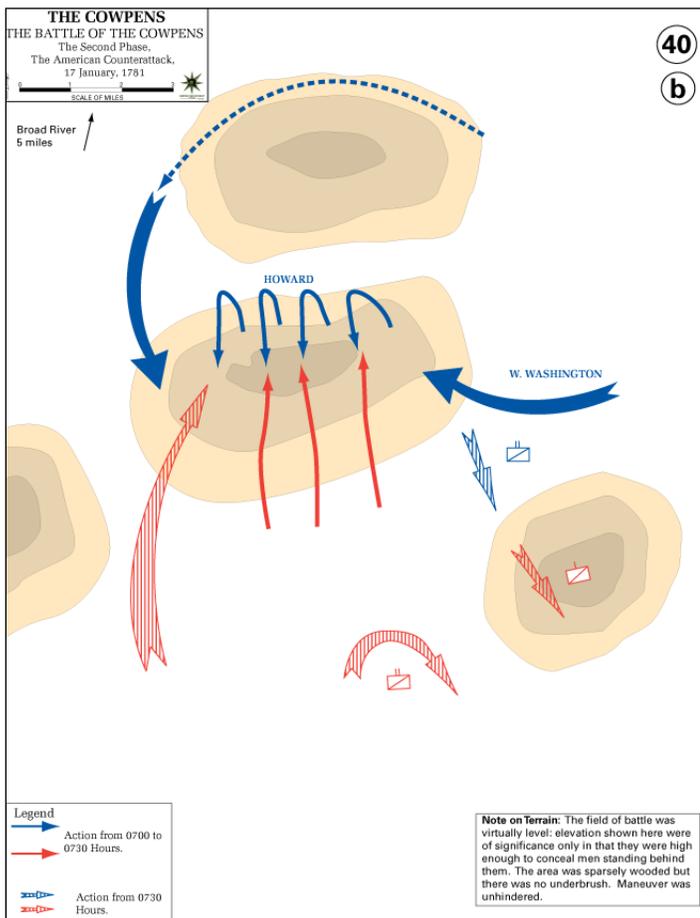
Third, similar to Tarleton's deduction of the militia's displacement as a general American withdrawal, the British infantry in the field already in contact understood the development as a victory almost won. They moved forward and quickly faced the American second main battle line of continental Soldiers. Checked in their movement, the British halted and traded rifle and musket fire with the Americans for approximately 10 minutes.³⁰ Sensing trouble with his main advance, Tarleton adjusted his plan of action. He ordered his contingent of 50 dragoons on the British left flank forward as well as the infantry portion of his reserve, the battalion force of the Royal Fusiliers of 71st Scottish Highlanders. He ordered his forces to overwhelm the right flank of the Americans. He retained his approximately 200 dragoons in reserve 400 yards behind the general area of battle.³¹

The battle now spanned the entirety of the American line. American and British dragoons clashed on the American left flank. The British infantry and American continentals exchanged violent fire in the center. British infantry and dragoons marched on the American right flank.

With a numerically superior force bearing down on his front and right flank, Colonel Howard observed the Americans fighting a tenuous position. To protect his line from the greatest threat, enfilading fire from the right, he ordered the units on the American right to "refuse the flank."³² Intending these units to reposition as to form a hinge and create a formation perpendicular to the main American battle line and face directly outwards to the right flank, Howard instead watched in fear as the units misunderstood the order. In the confusion of battle, the Americans received the order as an orderly retreat to the rear. As the right flank of the American line turned about-face and started an orderly withdraw to the rear, the rest of the American line believed it had missed a critical order and followed suit. A cessation in the fighting occurred as the entirety of the American battle line began marching to the rear. Again sensing American strength crumbling, the British lunged forward in an all-out offensive. In opposition to their strength as a disciplined fighting formation, small groups of British infantry rushed forward in mob fashion to deliver a decisive blow to their enemy. Alarmed at the development, Morgan rode forward to confer with Howard. Gaining greater situational awareness of the situation, Morgan rode forward to take personal command of the line.³³

At this point in the battle, another three simultaneous events determined the eventual outcome of the engagement. First, on the American left flank, the shock and number of Washington's cavalry contingent quickly overwhelmed the British. Disordered and significantly reduced in strength, the British dragoons withdrew in disarray. Washington's forces again seized the initiative and charged forward to fall upon the now unprotected right flank of the British infantry. Second, in the American center, Morgan positioned himself approximately 100 yards to the rear of his line and as his Soldiers reached a line abreast of his location, he ordered them to turn around and immediately fire. With the British approximately 20-30 meters away, the fire decimated their advancing line. An immediate order on the American side to charge with bayonets quickly overwhelmed the disorganized, bleeding, and shocked British infantry. Third, as the 71st Scottish Highlanders and supporting dragoons reached the American right flank, the American militia appeared from behind the gentle crest in the field and on the left flank of the British. The American militia, desperately rallying to return to the fight, completed a full circle from the left flank of the American line and now returned to the right flank to attack their foes in complete surprise.³⁴

As American dragoons encircled the British right flank and the militia encircled the British left flank, Morgan accomplished a rare feat in battle — a double envelopment of his opponent. Observing the situation turn increasingly hopeless, the British in the American center surrendered in large quantities. By



U.S. Military Academy Department of History

Map 3 — Battle of Cowpens, The Second Phase

the end of the engagement, the Americans captured more than 500 British Soldiers.³⁵ Those who did not surrender fled hastily in retreat. Attempting to rally his forces and regain offensive momentum, Tarleton ordered his reserve of 200 British Legion dragoons into action. Citing “an unaccountable panic [which] extended itself along the whole line,” the vast majority of the cavalry “fell likewise into disorder” and refused to obey Tarleton’s order.³⁶ Approximately 50 dragoons heeded Tarleton’s directive, and together this small contingent charged the swarming American forces in an effort to save the British cannons from capture. After an intense but quick engagement, the British force retreated from the field, and Tarleton withdrew from the battle a defeated commander.³⁷

In one hour of combat, American forces decisively defeated a combined arms British force unconquered as of yet in the southern theater of the American Revolution.³⁸ Compared to 12 killed and 61 wounded, the Americans inflicted more than 300 casualties, including 10 officers, and captured more than 600 prisoners.³⁹ Accountable for a defeat in which he lost nine-tenths of his own force, Tarleton also incurred responsibility for decreasing the size of Cornwallis’s field army by more than one quarter.⁴⁰ With such an overwhelming victory and the capture of two British cannons, 800 muskets, more than 100 cavalry horses, a large store of ammunition, and two stands of British regimental colors, the Americans secured an overwhelming and thorough victory.

Analysis

This decisive triumph at Cowpens stands attributable to the use of sound warfighting fundamentals, particularly relevant as seen through modern-day doctrine, the lenses of defensive characteristics, and the use of mission command. Regarding characteristics of the defense, Morgan wisely employed all seven doctrinal sub-elements of this principle to his advantage. First, his specific directive to his militia in both the skirmish and main battle line to engage “the epaulet men” resulted in significant disruption to the enemy’s advance. With this tactic, the Americans were able to successfully “target... enemy command and control systems” and prevent the British from “focus[ing] combat power.”⁴¹ During the British attempt to storm the second and last American battle line, a lack of English officers precipitated an unsuccessful mob rush as opposed to a disciplined and tight fighting formation that may have broken the American front.

In addition to disruption, the Americans also incorporated significant flexibility into the battle plan. Not only did Morgan establish a highly mobile reserve and strengthen its numbers with additional militia turned cavalry, he also established subsequent battle positions for his skirmish forces and designated a general rally point from which all militia could “prepare to counterattack.”⁴² Aiding flexibility, Morgan also simultaneously emphasized the concepts of both maneuverability and operations in depth. His battle lines spanned the width of Cowpens, taking full advantage of the terrain and enabling his forces to mass laterally at will. He also enabled his forces to move and mass vertically on the

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field. If one counts the reconnaissance placed prior to the Cowpens, Morgan planned for four lines of vertical defense plus a reserve. Accentuating this plan, the militia’s continued “movement in combination with fire” allowed the Americans “to achieve a position of advantage over the enemy.”⁴³ By the time the British reached the second main American battle line, the reduction in British numbers and formation integrity proved insurmountable.

Related to operations in depth, American forces also illustrated a cogent understanding of mass and concentration. Morgan clearly “surrender[ed] ground... to concentrate the defending force’s efforts.”⁴⁴ More importantly, he “accept[ed] risk in some areas to mass effects elsewhere.”⁴⁵ Morgan did not deploy his cavalry to his flanks when he observed Tarleton had done so. Rather, he retained his cavalry en masse to maximize its combined as opposed to divided strength.⁴⁶

Furthermore, Morgan thoughtfully prepared his battle plan and increased his natural security based on available terrain. His study of the ground allowed him to “select positions that allow[ed] the massing of fires,” specifically the dominance of the only two crests on the battlefield.⁴⁷ This would later prove invaluable to his double envelopment of the enemy. He also portrayed an intelligent eye for security, placing his forces in and behind the natural drifts of terrain which denied British artillery any significant success during the battle.

Arguably of greatest significance, Morgan exercised effective mission command to achieve victory at Cowpens. He issued clear commander’s intent to his troops prior to the battle.⁴⁸ To his militia, he explicitly directed them to fire two rounds before withdrawal. He also clearly identified to them how he wanted them to fight: steadfast in contact with the enemy and orderly in withdrawal. By addressing this topic directly, he anticipated and avoided a repetition of the disastrous recent battle at Camden in which militia standing side by side with continentals broke and ran, thereby

disintegrating the American front in the battle. Before and during the battle, he also continually reinforced to his Soldiers that they were to hold fire until assured the enemy was within killing distance, approximately 50 meters. The successful conduct of the militia during the battle and the significant British casualty rate effectively illustrate that Morgan provided clear commander's intent.

Second, Morgan balanced the use of mission orders with the exercise of disciplined initiative to successfully lead his forces. His actions at the climax of the battle clearly illustrate this point. After Howard took initiative to refuse the American right flank, Morgan rode to Howard and questioned why the Continental regulars were withdrawing. Morgan explained the Soldiers' misunderstanding of the order. Morgan did not countermand Howard's order or relieve him of command; he instead rode to the front himself to give a direct order for when the Soldiers should turn and fire. Howard was the officer who immediately thereafter seized the initiative and then ordered and boldly led the final bayonet charge which ultimately collapsed the British line. If Morgan had immediately reversed Howard's orders or removed Howard's ability to exercise initiative, the timing, synchronization, and sheer strength of leadership may not have been present in the American's critical final bayonet charge.

Furthermore, Morgan illustrated a strong understanding of his risk and how to prudently accept and manage this risk. For example, in preparation for the battle he left his flanks largely unprotected, usually a highly undesirable defensive

posture. Morgan, however, understood battles are "contest of wills characterized by continuous and mutual adaptation by all participants."⁴⁹ Morgan thoroughly understood his opponent, clearly shown by the many discussions he had with his officers and men the night prior to the battle. In the past, Morgan knew Tarleton continuously illustrated a will to quickly close with and destroy his enemy through audacity, tempo, and often reckless fighting. Therefore, Morgan created a reserve he could use to adapt to any differentiation in Tarleton's tactics. As the battle illustrated, however, Morgan effectively "outgenerated" Tarleton with his planning before the battle began.⁵⁰

Following the battle at Cowpens, the American Revolution continued for an additional 10 months with both successes and failures for the young U.S. Army. The British, however, were unable to regain dominance in the southern theater following Morgan's decisive victory. His effective use of warfighting fundamentals, particularly as seen through the characteristics of the defense and the use of mission command, significantly influenced not only the tactical situation in South Carolina but also the operational and strategic level of the war. Eventually the American Army — building upon the same principles of fire, maneuver, and leadership — forced the surrender of General Cornwallis at Yorktown. The implications of the war, indeed shaped by the battle of Cowpens, irreversibly changed the future of the United States, Britain, and the world.

Notes

¹ Carl Von Clausewitz, *On War* (Princeton, NJ: Princeton University Press, 1984), 360.



The Battle of Cowpens — Painted by William Ranney in 1845

² Thomas Fleming, *Cowpens: "Downright Fighting,"* (Washington, D.C.: Division of Publications National Park Service, 1988), 18.

³ Henry Lumpkin, *From Savannah to Yorktown: The American Revolution in the South* (Lincoln, NE: toExcel Pres, 1987), 29.

⁴ Franklin Benjamin Hough, *The Siege of Savannah* (Boston: Applewood Books, 1866), 38.

⁵ Carl P. Borick, *A Gallant Defense: The Siege of Charleston, 1780* (Columbia, SC: University of South Carolina Press, 2003), 200.

⁶ Jim Picuch, *The Battle of Camden: A Documentary History* (Charleston: The History Press, 2006), 24.

⁷ Fleming, *Cowpens*, 22.

⁸ *Ibid.*, 26.

⁹ John Moncure, *The Cowpens Staff Ride and Battlefield Tour* (Fort Leavenworth, KS: Combat Studies Institute, 1949), 46.

¹⁰ Fleming, *Cowpens*, 47.

¹¹ Theodorus Bailey Myers, *Cowpens Papers, Being Correspondence of General Morgan and the Prominent Actors* (Charleston: The News and Courier, 1881), 37.

¹² Edwin C. Bearss, *The Battle of Cowpens: A Documented Narrative and Troop Movement Maps* (Washington, D.C.: Office of Archeology and Historical Preservation, 1967), 2.

¹³ Burke Davis, *The Cowpens-Guilford Courthouse Campaign*, (Philadelphia: University of Pennsylvania Press, 1962), 44. See also Hugh F. Rankin, "Cowpens: Prelude to Yorktown," *The North Carolina Historical Review*, Volume 31, Number 3 (July 1954): 358; and Myers, *Cowpens Papers*, 26. Several different accounts of American troop strength exist, mainly because of multiple militia units streaming into support Morgan right up until the hour of battle.

¹⁴ Moncure, *Cowpens Staff Ride*, 46. On this page an insightful quote from Morgan further explains his decision for selecting the Cowpens for the field of battle. Aside from the obvious terrain features governing his choice, one of his primary selection factors was the fact that an inability to retreat would force the militia to stand and fight. Otherwise, Morgan predicted he one half of his militia force (approximately 500 men) would have deserted his army.

¹⁵ Bearss, *Battle of Cowpens*, 18. Of note, five miles before Cowpens, the British caught two Americans working a picket line under the command of Captain Inman. When questioned, the Americans revealed Morgan had deployed his forces to fight at Cowpens. Excited at the now inevitability of open battle, Tarleton marched his force with increased speed to the clearing. The strenuous forced march in the middle of the night over difficult roads and swollen creeks is credited in part to the exhaustion experienced by British troops on the day of battle. The remainder of the American picket retreated to Cowpens and successfully fulfilled their mission of alerting the Americans to the approach of the British and avoided being caught by surprise.

¹⁶ Kenneth Roberts, *The Battle of Cowpens: The Great Morale-Builder* (Garden City, NY: Doubleday and Company, Inc., 1958), 84.

¹⁷ Bearss, *Battle of Cowpens*, 11. To enhance the effectiveness of his skirmish line, Morgan separated the Georgia and Carolinian militia and appealed to their rivalry. He commented, "Let me see which are most entitled to the credit of brave men, the boys of Carolina or those of Georgia."

¹⁸ *Ibid.*

¹⁹ *Ibid.*, 12. Of important note, Morgan illustrated he grasped the use of the varying forces within his command. General Gates had attempted to use militia forces beside regular continental units at the battle of Camden. The militia units quickly crumbled in the face of the British bayonet. Morgan understood the militia's mindset and lack of training, and by his planning showed he understood how to most effectively use these forces while still maintaining a solid defensive posture with his Continental regulars on the second ridge. See also Moncure, *Cowpens Staff Ride*, 48; and Fleming, *Cowpens*, 56.

²⁰ Moncure, *Cowpens Staff Ride*, 48. Also see Fleming, *Cowpens*, 53, for discussion of Nathaniel Greene's and Light-Horse Harry Lee's praise of Howard.

²¹ Bearss, *Battle of Cowpens*, 11.

²² Fleming, *Cowpens*, 62.

²³ *Ibid.*, 64. Multiple sources discuss Tarleton's military success in America and his meteoric rise in rank as due to his talent in quick decisive action and hard fighting. He is described as eager to fight, greatly self-

confident, and to a point reckless.

²⁴ Bearss, *Battle of Cowpens*, 21. See also Fleming, *Cowpens*, 64. Tarleton's alignment proved to be tenuous because his deployment of cavalry did not match his estimates of American cavalry. He claimed after the battle to have seen the American cavalry before attacking. If so, 50 dragoons on either side would not match the hundred plus dragoon force of the Americans. Although he had 200 British dragoons kept in reserve, the battle would prove it impossible for these forces to affect the battle at the time and place needed.

²⁵ Bearss, *Battle of Cowpens*, 17. This source also states that the infantry and cavalry of the British reserve were still working their way forward and untangling themselves from the thick underbrush leading up to the Cowpens clearing. While still moving forward to the battle ground and caught up in thick terrain, it is highly likely the units of the reserve and their officers lacked clear situational understanding of the battle that began to play out.

²⁶ Fleming, *Cowpens*, 66.

²⁷ Bearss, *Battle of Cowpens*, 18.

²⁸ Fleming, *Cowpens*, 66.

²⁹ Bearss, *Battle of Cowpens*, 26.

³⁰ Roberts, *Great Morale-Builder*, 91.

³¹ Fleming, *Cowpens*, 69.

³² Moncure, *Cowpens Staff Ride*, 58.

³³ *Ibid.*

³⁴ Fleming, *Cowpens*, 71.

³⁵ Myers, *Cowpens Papers*, 26.

³⁶ Roberts, *Great Morale-Builder*, 94.

³⁷ Moncure, *Cowpens Staff Ride*, 62. Morgan displayed significant foresight even at the close of the battle. He ordered Washington to pursue Tarleton, who did so for 22 miles. Although Washington did not capture Tarleton, the American cavalry commander did destroy his entire baggage train and captured an additional 100 British prisoners who straggled rearward from the battlefield.

³⁸ This statement considers the Battle of King's Mountain, fought before Cowpens, as an engagement mainly between American forces and British Loyalists, not a regular British unit. As seen in the introduction of this article, the British previously overwhelmed American forces twice at Savannah and once at Charleston prior to Cowpens.

³⁹ Bearss, *Battle of Cowpens*, 22. The complete breakdown of officer casualties: one major, 13 captains, 14 lieutenants, and nine ensigns.

⁴⁰ *Ibid.*

⁴¹ Army Doctrine Reference Publication 3-90, *Offense and Defense*, February 2012, 4-1.

⁴² *Ibid.*

⁴³ *Ibid.*, 4-2.

⁴⁴ *Ibid.*, 4-1.

⁴⁵ *Ibid.*

⁴⁶ *Ibid.*

⁴⁷ *Ibid.*

⁴⁸ Army Doctrine Publication 6-0, *Mission Command*, May 2012, iv.

⁴⁹ *Ibid.*

⁵⁰ Bearss, *Battle of Cowpens*, 23. Multiple discussions in this source as well as others illustrate that Morgan largely formed his battle plan from anticipating how Tarleton would fight occurring to his rash and quick attacks in the past. Morgan's defense in depth, use of his forces, and strong reserve contingent all played to the American's strengths and exploited Tarleton's weaknesses.

At the time this article was written, **CPT Brady Dearden** was attending the Maneuver Captains Career Course at Fort Benning, Ga. He currently commands Headquarters and Headquarters Company, 2nd Battalion, 2nd Aviation Regiment, Republic of Korea. CPT Dearden, an Aviation officer, is a 2009 graduate of the U.S. Military Academy at West Point, N.Y. Following Flight School XXI, he was assigned to the 4th Battalion, 101st Aviation Regiment, 159th Combat Aviation Brigade at Fort Campbell, Ky., where he served as a maintenance platoon leader, flight platoon leader, and battalion adjutant. He deployed with 4-101 (Task Force Wings) to FOB Shank, RC-East, Afghanistan from January to September 2014. CPT Dearden earned a bachelor of science degree in law and a master of philosophy in international relations from the University of Cambridge.

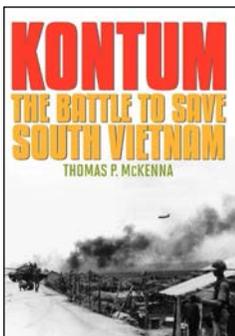
Book Reviews



Kontum: The Battle to Save South Vietnam

By Thomas P. McKenna
Lexington, KY: University
Press of Kentucky, 2011,
376 pages

Reviewed by Gerald Williams



Kontum: The Battle to Save Vietnam is a fascinating and pulse-racing account of what Thomas P. McKenna experienced during the Vietnam War. As a U.S. Army Infantry lieutenant colonel, McKenna gives his account of what he considers to be one of the lesser recognized battles of the Vietnam War. Throughout the book McKenna uses letter dates and material for verifying the events. I was also very appreciative of the preface, which lists the acronyms and terms that he uses throughout the book.

McKenna's descriptions of the Vietnam War and the struggles and complications from allies and enemies shed further light on a history worth knowing. In particular, working alongside allies such as the VNAF (South Vietnamese Air Force) was no easy task. However, McKenna's telling of how they dealt with the issues of evacuations and procedures during these events and how these differed from their South Vietnamese allies, makes for an interesting historical account of how cooperation between two fundamentally different countries can lead to success.

As mentioned before, McKenna uses many terms throughout his novel and as such it can be a little hard to keep them in mind. However, McKenna supplies a glossary that contains military abbreviations and jargon, making it easier for inexperienced readers of military texts to read and enjoy thoroughly. McKenna also includes illustrations which depict anything from positions of enemy lines to pictures of friends and allies during his time in Vietnam.

McKenna's overall flow in writing the book is also spot on. There are times in which McKenna slows down time by giving more background on himself and others. It is then that readers see the human element of those involved in the Vietnam War. Just when McKenna brings in the sense of home and friendship, those human elements are endangered by constant waves of attacks from the enemy. There is definitely more attention paid to the actions of the regiment versus human emotion; however, the addition of the latter helps to make his story more interesting than reading about the events from a history book.

Kontum: The Battle to Save Vietnam is an exhilarating and fact-driven book which seeks to reveal the battle of Kontum as it hasn't been revealed before. It is a story of humanity, conflict, and eventually resolution. For anyone who wants to

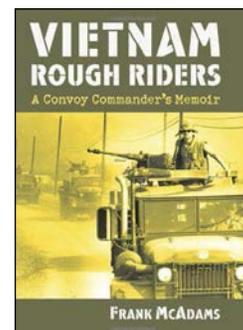
know the technical side of a less recognized battle fought in Vietnam, this novel is an engaging and well-thought out read.

Vietnam Rough Riders: A Convoy Commander's Memoir

By Frank McAdams
Lawrence, KS: University
Press of Kansas, 2013, 280 pages

Reviewed by LTC (Retired)

Rick Baillergeon



In recent years, we have seen a resurgence in the Vietnam War memoir. As many veterans enter their retirement years, they now have the time to devote to capturing their experiences on paper. I have found the overall quality of these recently penned memoirs to be outstanding. One that particularly stands out is Frank McAdams' superb volume, *Vietnam Rough Riders: A Convoy Commander's Memoir*.

Within the book, McAdams vividly details his tour as a Marine lieutenant in Vietnam (March 1968-March 1969). During that time, he served principally in a Marine Corps transportation battalion. The primary mission of the unit was to deliver supplies and ammunition to line units. Through most of his tour, McAdams led many of the convoys that executed this critical mission. It was a mission as dangerous as any in the war with a continuous threat of enemy ambushes and lethal mines that were emplaced on convoy roads.

Clearly, there have been hundreds of memoirs written by veterans describing their Vietnam War experiences. So the pertinent question regarding McAdams' volume is what distinguishes *Vietnam Rough Riders* from most of these other volumes? I believe the differences lie in four areas:

- * The type of unit the author served in;
- * The decision to emphasize his wife's experiences during his deployment;
- * His ability to capture the challenges faced by a young officer in war; and
- * McAdams' superb writing ability.

A large percentage of Vietnam War memoirs are focused on the experiences of the "grunt." Consequently, McAdams provides a perspective unique in this genre. His discussion on the nuances of Vietnam convoy operations is both highly informative and fascinating. It is a part of the Vietnam War that is neglected. McAdams' memoir highlights the danger and the criticality of this facet of the war.

Another distinctive aspect of the memoir is McAdams' decision to feature his wife's experiences stateside while

he was deployed. The author poignantly describes how his wife coped day to day while he was exposed to the dangers of war. One of the great aids McAdams utilizes in doing this is including letters written to each other during his tour. Obviously, this tremendously personalizes the volume and stresses the powerful impact the “home front” has in enabling a Soldier to face the incredible challenges of combat.

I believe one of the strengths (among many) of *Vietnam Rough Riders* is McAdams’ ability to depict the tests a young officer is confronted with in war. The author shares many of the tests he faced. These included the difficulties he had working with his company commander and some of the field grade officers in the battalion, how he met the physical and emotional challenges of war, and how like many Soldiers (in any war) he questioned the purpose of war and its ramifications. McAdams’ candid discussion will have a powerful impact on many readers.

Unquestionably, *Vietnam Rough Riders* is one of the best written Vietnam War memoirs I have read. McAdams is incredibly engaging throughout his volume. He achieves this through a crisp and descriptive writing style, superb organizational skills creating a smooth flow for readers, and his ability to select events which appeal to readers. Perhaps, most impressive is that McAdams is equally adept at describing the action of an enemy ambush or sharing his feelings regarding his wife.

McAdams has crafted a volume which I consider one of the best Vietnam War memoirs I have read in many years. In fact, it is one of the best books I have read in recent memory. Do not let your apprehension on reading “another” Vietnam War memoir deter you from obtaining this book. Its combination of uniqueness and quality make *Vietnam Rough Riders* a must read.

fielding of mass swarms of small, cheap, smart, and deadly UAS on the battlefield.

These future UAS — or drone — swarms will be said to be made with off-the-shelf electronics and draw upon the characteristics of robustness, low cost, and rapid evolution. Such armed drones can be thought of as “flying minefields” and, while not singularly threatening, en masse will be impossible to defeat. Given ongoing U.S. Soldier concerns related to static improvised explosive device (IED) use by insurgents in Afghanistan and Iraq, the threat of IEDs — especially smart ones — chasing after or, even worse, relentlessly hunting down our troops is a chilling concept. Additionally, such UAS can be armed with pistols, light machine guns, and even anti-tank type systems.

The book opens with a short introduction to the subject matter and the book’s companion website (www.swarm-troopers.com). The individual chapters include content relating to drone history; Predator and Raven use; solar power and energy harvesting for drones; the science of swarming behavior; small drones as weapons; counter-UAS (C-UAS) technologies; and weaponized drone swarm futures. Each chapter has a modest listing of references that is adequate but rather undeveloped. The website is very useful with an image gallery of older and newer UAS systems (since none are found in the book); an updated blog also provides new drone technological developments.

A detracting component of the work is that the author at times has very much of an outsider’s take on UAS threat activities and C-UAS military developments. Active C-UAS programs are being implemented by a number of U.S. governmental and affiliated non-profit groups. As a result, many of the insights and conclusions provided are somewhat off-base though the overall thesis of the book — that autonomous and weaponized drone swarms of thousands, possibly tens of thousands of devices, drawing upon off-the-shelf commercial technologies will be deployed on future battlefields — is still sound.

For U.S. Infantry personnel, *Swarm Troopers* represents a good basic primer and introduction to this emerging threat — and new Army capability — area. While Army troops are already familiar with the Raven UAS for scouting and situational awareness capabilities, we are at the beginning of far larger battlefield changes. This has already incrementally begun with the fielding of the compact Switchblade UAS system that can be fired from a tube launcher and operates as an attack (e.g. kamikaze) drone with a small explosive warhead. Fast-forward a decade or two, however, and one can imagine a battlefield populated by thousands upon thousands of teleoperated and autonomous robots. These systems will not only be operating in the deserts of Iraq and the mountainous terrain of Afghanistan but also in the slums of mid-21st century megacities. On one hand, such autonomous and armed UAS will be the infantry’s best friend while other such drones — that fly, drive, walk, and crawl — will represent a dystopian “terminator-like” threat as human and machine forces are integrated into new forms of combined arms operations.

***Swarm Troopers: How
Small Drones Will Conquer
the World***

By David Hambling

**Venice, FL: Archangel Ink,
2015, 323 pages**

**Reviewed by Dr. Robert J.
Bunker**



The author, David Hambling, is a South London-based technology journalist who has written for *Wired*, *Aviation Week*, and other technology magazines as well as authoring an earlier book about military technologies that eventually were applied to civilian applications (*Weapons Grade*, Da Capo Press, 2006). In the new work, *Swarm Troopers*, he focuses on the world of small drones or unmanned aerial systems (UAS) and their future military potential. He argues that the scientific research balance has now shifted, with consumer electronic advances outstripping military electronic advances. As a result, we are the cusp of a technology revolution which will see the future

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