

Infantry

Fall 2021

THE CHANGING CHARACTER OF WAR

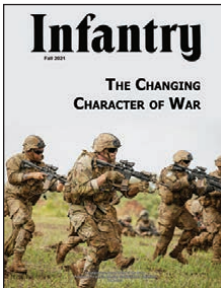


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FRONT COVER:

Soldiers with Task Force Warrior bound forward during a live-fire range as part of Garuda Shield 21 at Baturaja Training Area, Indonesia, on 12 August 2021. (Photo by SPC Rachel Christensen)

BACK COVER:

Paratroopers assigned to 2nd Battalion, 503rd Infantry Regiment, 173rd Airborne Brigade, fire a 120mm mortar illumination round on 23 July 2020 during a field training exercise in Grafenwoehr, Germany. (Photo by SGT John Yountz)



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Commandant's Note

BG LARRY Q. BURRIS



New Horizons, New Goals

As 2021 draws to a close, we find ourselves decisively committed to reducing threats to Soldiers, family members, and the civilian workforce as we strive to accomplish our missions. We continue to grapple with the COVID-19 virus. We will continue to meet the COVID challenge with vaccinations, masking, and social distancing guidelines. The readiness of the force that defends our homeland, her people, and her treasure, depends on the health of each and every one of us. COVID-19 is just one more enemy to engage and defeat.

For the last 20 years, we've spent a lot of effort on counterinsurgency (COIN) operations, but the times and players are changing. Our own preoccupation with COIN taught us a great deal, but Russia and China have not been wasting their time in their own corners of the world either. We are taking a hard look at large-scale combat operations (LSCO) to counter their adversarial ambitions in other global areas of interest. Both have been addressing real-world concerns in Asia along the Pacific Rim, and in the former Soviet satellite states bordering the Black Sea, Iran, Afghanistan, and other potential regional tripwires.

Just as our adversaries have long done, we have observed and have assessed the potential of LSCO; we also recognize the evolving nature of the threat. With that in mind, this issue of *Infantry* offers a comprehensive article describing a daytime air assault operation executed by the 1st Battalion, 27th Infantry Regiment during a Joint Readiness Training Center rotation at Fort Polk, LA, in October 2020. Continuous large-scale combat operations are inherently transitional because once initial contact is made all bets are off. Units sustain casualties, supplies run out or come late, and communications fail as a result of enemy action or on their own. When comms go down, reporting unravels and the planned operation is victim to the exigencies of the current fight on the ground. In the Wolfhounds' operation, the initial air assault went well and early objectives were seized, but the unit took heavy casualties after dark and had to evacuate casualties under fire. The Wolfhounds had three main issues: relocation of the unit while in contact; execution of continuous medical evacuation (MEDEVAC); and resupply of the unit as a supplementary tasking. Battlefield access was a primary challenge to MEDEVAC in LSCO; the need to reach casualties to evacuate them revealed the criticality of planning for secure ground and reliable rotary wing assets. Steps to success for operations of this nature and complexity: assessing risk; maneuver force ratios; and intelligence preparation of the battlefield (IPB). We need to realistically evaluate a unit's ability to sustain offensive operations. IPB must be prioritized and sometimes triaged, and we must plan for transitions in

contact. Near-peer adversaries will have the resources and technology to continue very successful disruption operations throughout the bulk of future conflicts.

Our significant potential adversaries of immediate concern have tacitly or even openly supported our battlefield enemies with technology, materiel assets, and in some cases maneuver units and trainers to support fielding of anti-aircraft and anti-armor systems and munitions. Given the increasingly sophisticated nature of communications and the growing speed and range of our adversaries' anti-access/area denial (A2/AD) networks, two fundamental vulnerabilities are readily apparent: Time and distance are increasingly critical because U.S. successes over the past decades have relied heavily on our ability to identify, plan, and execute those power projection missions such as the Osama Bin Laden takedown that has been covered in such detail on this, the 20th anniversary of the World Trade Center attacks. The viewing world has now learned how America transitioned from shock, to outrage, to meticulous planning, to a superbly executed assault on the perpetrator's hideout. Now we know how it was accomplished, but the rest of the world knows as well. This means that the next time — and there will always be a next time — the dogs of war are unleashed it will be more difficult because one thing we have lost over the last two and one-half centuries is how to keep a secret.

Technological advances have enhanced our adversaries' space, cyber, information, electronic warfare, weapons effects, and other capabilities. This effect alludes to the layered approach that will allow our adversary to employ stand-off through the use of chemical, biological, radiological, and nuclear (CBRN) weapons to reduce the effectiveness and employability of these and other instruments of national power. By 2035 the Multi-Domain Army will transform the way we fight in order to: sustain the fight, expand the battlespace, strike in depth across domains, gain and maintain decision dominance, create overmatch, and prevail in large-scale combat.

Perhaps the most significant difference between applying multi-domain effects in the operational fight in forward theaters is that the Joint Force must be postured and ready forward with the full suite of capabilities. Given economic and political factors over the past four decades, reliance on required prepositioned stocks in theater or noncombatant evacuation plans may no longer be feasible, especially if adversaries claim air or sea superiority. Likewise, fighting state actors from a cold start by projecting power from the homeland over many months is no longer a viable course of action.



New Optic to Aid Machine Gunners

JUSTIN SWEET

Accuracy by volume has been a long-standing denigration of the shooting style of machine gunners. However, that is about to change with the new Family of Weapons Sight – Crew Served (FWS-CS) machine-gun optic that provides Soldiers increased accuracy and lethality by leveraging the most up-to-date weapon sight and wireless technology.

Project Manager Soldier Maneuver and Precision Targeting (PM SMPT) held a Soldier Touchpoint (STP) with Soldiers of the 82nd Airborne Division in February. The Soldier feedback from the STP ensures end users are involved throughout the development of the FWS-CS and it has marked advancements in capability compared to legacy equipment.

“With a program as complex as ours, we need feedback early and often in order to ensure we get our machine gunners what they need in the final product,” said MAJ John Nikiforakis, PM SMPT Assistant Product Manager. “Mounted machine gunners have the difficult task of providing guidance to the crew, ensuring protection of their vehicle, and most importantly providing lethal effects on the enemy. The FWS-CS ensures that the gunners in turrets have the best optic for all battlefield conditions and one that mounts to any crew-served weapon in the Army’s inventory.”

“We’re comparing shooting data from the current M145 Machine-Gun Optic (MGO) to the FWS-CS to see if we can engage targets at unknown distances faster and more accurately,” said 1LT Anthony Ramirez of the 2nd Battalion, 325th Airborne Infantry Regiment (AIR), 82nd Airborne Division. “The biggest benefit of the FWS-CS is that there’s a built-in laser rangefinder and ballistic calculator, so it determines the range and adjusts the reticle. All we have to do is put the reticle on the target and engage.”

The FWS-CS is the first machine-gun optic to utilize the “disturbed reticle” technology. Along with calculating the range to the target, the ballistic calculator can adjust for air density and works with any of the Army’s current machine gun systems.

“Typically you have to walk your fire on target, but with the FWS-CS you have

impact on the first burst,” said SGT Jose Perez, also from 2-325 AIR. “It’s a really cool system that can be used with multiple firearms, including the M240, MK19, and .50 cal.”

In addition to the disturbed reticle, the FWS-CS can be used day or night and in limited visibility conditions, providing Soldiers greater lethality on the battlefield.

“It is a day and thermal sight. So it allows us to operate in a multitude of environments and be able to engage under more conditions than the M145 is capable of,” said 1LT Ramirez. “It has the capability to look through fog and other inclement weather conditions that the old M145 wouldn’t be able to reach out and see.”

The FWS-CS utilizes long-wave thermal technology and a high-definition digital day display that provides users with an extremely detailed field of view and many options for customizing the reticle and display. In addition to its stand-alone performance, the FWS-CS is one of many programs within PM SMPT to utilize wireless technology. The Intra-Soldier Wireless (ISW) system allows the FWS-CS to connect to a Helmet Mounted Display (HMD).

Read more about the FWS-CS at <https://www.peosoldier.army.mil/News/Article-Display/Article/2573777/>.

Justin Sweet works for Program Executive Office (PEO) Soldier.



U.S. Army photo

The Family of Weapons Sight – Crew Served (FWS-CS) machine-gun optic can be used day or night and in limited visibility conditions.



Writing Our Way to Better Critical Thinking

KRISTY L. BELL

Years ago, while serving as a surface warfare officer in the Navy, I was involved in an incident that resulted from an almost incredible chain of errors. The ship I served on scraped the side of a weather data collection buoy in the middle of the ocean, in spite of the multibillion dollar warship having the most sophisticated sensor package in the world — the Aegis suite — and an award-winning crew. The details are unimportant, but the incident highlighted how easy it is to make a serious error when operating tempo is high and groupthink takes over. Everyone on watch thought someone else would stop the incident from happening, and no one did. I came to realize it was a crew-wide failure in critical thinking. We should have seen the indicators of a problem developing and taken actions to get ahead of it, and we didn't. I've also come to realize it was unremarkable, in that it could have been just about any military unit, in any number of scenarios.

The Case for Critical Thinking

Almost 20 years later, there is little doubt that the military needs critical thinkers as leaders more so now than in my time. The world has grown exponentially in complexity and pace of movement, and the military leader must not only be able to operate independently while nesting with commander's intent, but also to anticipate and get ahead of problems. We find this idea embedded in our professional military education institution mission statements and outcomes. For example, consider the Maneuver Captains Career Course (MCCC) Outcome 6: "Apply critical thinking to understand and realize mission command to build teams, establish shared understanding, issue clear commander's intent, demonstrate disciplined initiative, use mission orders, and accept prudent risk." Similarly, the Maneuver Senior Leaders Course purpose, as identified in its welcome letter, is to "educate Infantry and Armor NCOs to be adaptive leaders that are critical and creative thinkers."

According to Army Doctrine Publication (ADP) 6-0, *Mission Command: Command and Control of Army Forces*, "Critical thinking examines a problem in depth from multiple points of view. It determines whether adequate justification exists to accept conclusions as true based on a given inference or argument. Critical thinkers apply judgment about what to

believe or what to do in response to facts, experience, or arguments."¹ But this definition falls short in that it tells only part of the story. We need leaders who can not only apply descriptive analysis (understanding and responding to what has already happened, as the definition above implies) but also prescriptive analysis. We need leaders who can determine how to actively shape the environment around them toward mission accomplishment.

Critical thinking experts Richard Paul and Linda Elder take the critical thinking definition a step further, and I believe their definition comes closer to what the Army needs from its leaders: "Critical thinking is the art of analyzing and evaluating thinking with a view to improving it."² So critical thinking involves metacognition, a refinement not so much of what we think but of how we think and learn. What's key about this is that by thinking about complex subjects and reflecting on and refining our own thought processes, we can improve our ability to think.³

Teaching Critical Thinking in the Military

Teaching critical thinking is a tall order in an environment that prioritizes templates, memory aids, and formatted briefs. I recognize that the above save both time and lives because they drill commonly performed, critical tasks to a familiarity where they become muscle memory. We can have confidence that our leaders can reliably repeat them in the most strenuous circumstances. But while repetitions of templated activities build a sort of routinized muscle memory (renowned educational psychologist Benjamin Bloom called it naturalization), they don't work on the same muscles that flex for critical thinking.

ADP 6-22, *Army Leadership and the Profession*, defines the leadership competency of *Prepares Self* as "understands the contribution of... critical thinking, learns new approaches to problem solving, filters unnecessary information efficiently, and analyzes and organizes information to create knowledge."⁴ The *Creates a Positive Environment* competency also stimulates innovative and critical thinking in others. The Army's leadership publication goes on to link critical and creative thinking with adaptability and agility.⁵ It's clear the Army sees a direct relationship between being able to think

critically and leader success. What's less clear is, within the time and space-constrained environment of professional military education, how do we build the competencies that underlie performance in these areas? The answer is: write more.

Writing as an Avenue to Critical Thinking

I teach communicative skills at the Maneuver Center of Excellence, and I grimace when people refer to what we teach as writing. The vehicle we use to assess it is writing, sure, but what we're trying to build is critical thinking. We're trying to get students, generally pre-command captains, to develop skills that enable them to see patterns and connection points and get ahead of problems, instead of reactively trying to solve them once they occur.

We also need maneuver leaders to exercise leadership through others, so we need them to take a sometimes vague or nonexistent set of instructions, analyze the situation, determine what's required and how best to go about it, and come up with a solution that advances them toward mission accomplishment — all while anticipating problems that could derail them. Along the way, we're often asking them to drill down to the essence of a complex concept, pick out what matters, and then translate and package it into a message suitable for a specific audience. For staff officers, of course, this skill becomes even more important, because the staff largely performs the filtering and sense-making functions not only for themselves but for their commander.

We struggle with getting young maneuver officers to embrace this. Student survey comments for MCCC routinely lament the lack of utility communicative skills as a topic area brings to their jobs as company commanders and staff officers. If they acknowledge its importance at all, they want to spend more time on structured briefs, and they want to write NCO evaluation reports (NCOERs) and memorandums, because they think of the communication being assessed as an end to itself. These examples of communication are what they've been doing, and they're what some of them think they'll continue to be primarily responsible for. So, why not practice them to a higher level of execution or talk about reviewing them, instead of wasting precious time writing about past battles or fictional cross-domain near-peer scenarios?

Most junior officers, in my experience, see themselves as battlefield tacticians first, potential staff officers and day-to-day in-garrison leaders a distant second. To an extent, this mind set is necessary. The warfighting business rewards physicality and violence of action. But continuing to practice communication modes they're already familiar with does nothing to develop the critical-thinking skills they need as they advance. The physical equivalent would be like always

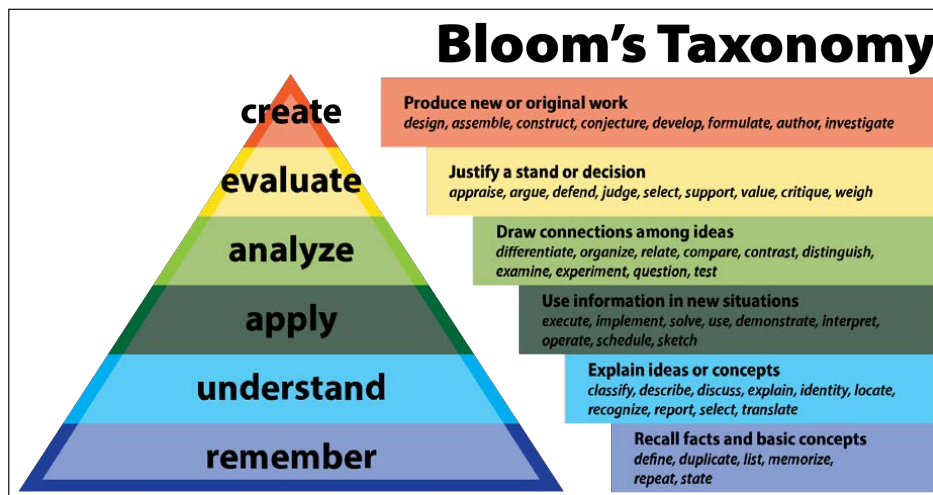
working on their strength while neglecting their cardiovascular conditioning. They could destroy an enemy who came into their wheelhouse, but they'd be in trouble if they had to outmaneuver him.

Writing Builds Higher-Order Thinking Skills

A 2007 Life Sciences Education study found a direct correlation between writing and critical thinking. The researchers experimented with college students by having one group of students go through a traditional quiz-based laboratory experience and the other go through a writing-intensive laboratory experience. The study measured critical-thinking skills for both sets of students before and after the semester, with the set that participated in the writing-intensive experience showing an improvement in critical thinking more than nine times that of the non-writing group.⁶ Specifically, it seems the more opportunity for deep reflection, and for implementing feedback on writing, the more improvement occurs.⁷

In another 2002 study, researchers compared the self-reported institutional growth in critical thinking (IGCT) between students at four universities at graduation. The researchers isolated the variable of selectivity by intentionally choosing schools that were both highly selective and schools that were low in selectivity. What they found was that students at schools whose curricula specifically emphasized writing assignments over multiple-choice examinations saw a statistically significant higher increase in IGCT, regardless of selectivity in admissions.⁸ So even if students have a diverse range of critical-thinking skills upon entry, a writing-intensive program elevates their critical-thinking performance.

This works because of the theory that underlies Bloom's taxonomy, a method of categorizing learning into domains and, within those domains, into levels of complexity and specificity. What we're talking about is the difference between learning at lower levels — which is largely about remembering, understanding, and being able to apply specific knowledge — and learning at higher levels, which involves analyzing, evaluating, and creating.



Graphic courtesy of Vanderbilt University Center for Teaching

The highest levels of learning within the cognitive (thought) domain ask a learner to assess the importance of certain elements of information, determine an approach or argument that is most effective for a given situation, and create a new product from component elements, as some examples.⁹ So when it comes to leading troops in battle, this is where the rubber meets the road. The military needs battlefield leaders and staff officers who can filter important information quickly, synthesize it into a conclusion or decision, and evaluate courses of action based on criteria set by a situational analysis, all while nesting with higher intent.

Where writing comes in is here. Writing that doesn't use a canalizing template forces the writer to do several things: define and analyze a problem, explore the existing body of knowledge about the problem, cull through quantities of information to find relevant patterns and meaning, take a position based in analysis, and systematically lay out an informed solution to the problem for a specific audience. Rather than applying rote, templated solutions, the writer has to synthesize new ideas from existing information and draw inferences that lead to conclusions, thus practicing higher-order thinking. Developing higher-order thinking skills leads to thoughtful, agile leaders who can more readily see connections and implications in their day-to-day.

Writing gives us an opportunity to explore complex concepts as well as to define and refine how we think. It puts us in a position to ask ourselves growth questions: Am I seeing this clearly, or am I letting biases and preconceived notions cloud my judgment? Are there other possibilities I may have missed? What does my audience need to know? How is this relevant to me now and in the future? What can I learn from this? Perhaps even more importantly, writing enables the continuous improvement of the profession by facilitating the sharing of your ideas and experiences with a larger audience. No matter what your position or rank, someone in the force less senior could benefit from your experience, and someone more senior could benefit from your ideas.

There is a direct link between writing and critical thinking, and between critical thinking and leadership effectiveness in a complex world. It is, minute for minute, some of the best time you can spend developing your ability to think critically. Do it for your critical-thinking skills. Do it for your formation. Do it for your profession.

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Notes

¹ Army Doctrine Publication (ADP) 6-0, *Mission Command: Command and Control of Army Forces*, July 2019, 2-4, accessed from https://armypubs.army.mil/epubs/DR_pubs/DR_a/ARN18314-ADP-6-0-000-WEB-3.pdf.

² Richard Paul and Linda Elder, *Critical Thinking Concepts & Tools*, 7th ed. (Tomales, CA: Foundation for Critical Thinking), 2.

³ Nancy Chick, "Metacognition," Vanderbilt University Center for Teaching, last modified 2013, accessed 11 April 2021 from <https://cft.vanderbilt.edu/guides-sub-pages/metacognition>.

⁴ ADP 6-22, *Army Leadership and the Profession*, July 2019, 6-4, accessed from https://armypubs.army.mil/epubs/DR_pubs/DR_a/ARN20039-ADP_6-22-001-WEB-0.pdf.

⁵ *Ibid.*, Ch. 4.

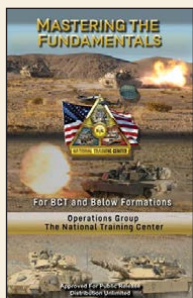
⁶ Ian J. Quitadamo and Martha J. Kurtz, "Learning to Improve: Using Writing to Increase Critical Thinking Performance in General Education Biology," *CBE Life Sciences Education* 6, no. 2, (Summer 2007): 148. doi: 10.1187/cbe.06-11-0203.

⁷ Gamze Cavdar and Sue Doe, "Learning through Writing: Teaching Critical Thinking Skills in Writing Assignments," *PS: Political Science and Politics* 45, no. 2, (April 2012): 298-306, accessed from <https://www.jstor.org/stable/41433696>.

⁸ Lisa Tsui, "Fostering Critical Thinking Through Effective Pedagogy," *The Journal of Higher Education* 73, no. 6 (November/December 2002): 754-755, accessed from <http://www.jstor.org/stable/1558404>.

⁹ University of North Carolina at Chapel Hill Learning Center. "Higher Order Thinking: Bloom's Taxonomy." Accessed 12 April 2021 from <https://learningcenter.unc.edu/tips-and-tools/higher-order-thinking/#:~:text=Bloom's%20Taxonomy%20is%20a%20framework,and%20creation%E2%80%94the%20levels%20of>.

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Mastering the Fundamentals for BCT and Below Formations

Regardless of echelon, the Army needs units to be masters in a handful of fundamental tasks. By focusing an organization's energy on a few, simple, achievable tasks, leaders create a purpose that directly contributes to the Army's mission. As a leader at any level, you must take the time to create a common focus for your organization the minute you take charge. This National Training Center publication provides the nexus for a conversation every leader should have at every echelon in his or her formation. What is our focus? In what areas must we be experts?

The publication is available at:

<https://api.army.mil/e2c/downloads/2021/05/18/a6de0cc2/21-19.pdf>.

Trust as a Control Measure: *Platoon Leaders and their Weapons Squad*

1LT ALEX TODD

“Under the quickly organized fire support of a heavy machine-gun platoon, it was possible to regain the last line of the combat outposts without suffering much in the way of casualties. The fire and movement of the assault squads were in complete unison...”

— **Irwin Rommel** on the storming of Mount Cosna, 11 August 1917¹

As a cadet in ROTC and a lieutenant progressing through my initial infantry training, one concept was repeatedly hammered into me: the importance of the platoon leader’s relationship with the platoon sergeant. It seemed that every piece of advice offered by a visiting senior leader included some version of “when you take a platoon, trust your platoon sergeant.” While this is an extremely important relationship and all of that advice is correct, one thing rarely, if ever, touched on is the platoon leader’s relationship with the third key leader in the platoon — the weapons squad leader. More broadly, the theory of how suppression enables maneuver was presented to me in a limited and piecemeal fashion. Because the weapons squad

leader-platoon leader relationship is uniquely intertwined with the tactical implementation of the weapons squad, I feel that both should be discussed. This article discusses what I wish I had understood earlier as a platoon leader about the use of machine guns and the relationship with the leader in charge of their implementation. But first, it is helpful to understand the historical background of the weapons squad.

A Brief History of the Weapons Squad

To appreciate the function of the contemporary weapons squad, it is important to understand the history of the Army’s use of machine guns. The Army first used the machine gun in World War I when its primary fighting infantry formation was the regiment. Under this system that emphasized overwhelming firepower and mass, Browning M1917 heavy machine-gun teams were organized within a weapons battalion. A weapons battalion fielded 16 machine guns, each requiring a crew to maintain and operate. By World

An assistant gunner helps feed ammunition into his gunner’s M240B machine gun from a support-by-fire position during a combined arms live-fire exercise at Fort Drum, NY, on 19 October 2018.

Photo by SSG James Avery



War II, the Army modified tactics to enable fire and maneuver at lower tactical levels. Infantry Field Manual (FM) 7-10, *Rifle Company, Rifle Regiment*, codified this shift and also coincided with the fielding of the Browning M1918 automatic rifle to each rifle squad.² FM 7-10 prescribed the use of a weapons platoon within each company equipped with two Browning M1919 .30 caliber machine guns and company mortars.³

While this configuration was effective in WWII combat, a capabilities gap remained in the ability of a rifle platoon to adequately suppress and fix enemy forces and enable maneuver. In 1961, the U.S. Army Infantry School at Fort Benning, GA, conducted a study called the Rifle Squad and Platoon Evaluation Program (RSPEP). RSPEP identified that the new M60 machine gun was too unwieldy to be issued to a rifle squad because it needed a three-man crew to operate.⁴ The study recommended creating a weapons squad within each rifle platoon. This platoon reorganization remains, with the M240 series replacing the M60.

Although the implementation of machine guns has evolved along with technology and tactics, this history is helpful to review. It shows that the machine gun has reigned supreme in its role of suppressing, fixing, and isolating the enemy since its introduction to the battlefield.

The Weapons Squad in Large-Scale Combat Operations (LSCO)

The 2018 National Defense Strategy clearly outlined the Army's role in the future fight: conducting Unified Land Operations against a near-peer or peer threat in LSCO. While the scale of such operations are vast, there are three key assumptions that percolate down to the company and platoon level. These assumptions are grounded in FM 3-0, *Operations*. First among them is that in a large-scale fight the only enablers platoons should expect are at the company level. The layers of air assets and artillery support that have defined the counterinsurgency (COIN) fight of the last 20 years will no longer be at a platoon leader's fingertips, due to enemy area denial capabilities or asset allocation requirements. The next assumption must be that in such combat operations there will be very limited opportunities for surprise at the platoon level. In LSCO a platoon will usually not be at the point of first contact, and the enemy will most likely know the general location and time of an attack. The third assumption is that command, control, intelligence, surveillance, and reconnaissance (C2ISR) assets will be unavailable or degraded by enemy systems. The result is that intelligence and a common operating picture will often have to be developed at the point of contact. For platoon leaders, this means that they can assume they will have nothing more than operational graphics and a 1:50,000 map to plan with. This results in little to no understanding of micro-terrain and vegetation on the objective.

A skilled weapons squad offers a platoon the best solution to address the tactical issues inherent to LSCO. First, with a lack of close air support or artillery to suppress and fix the

A skilled weapons squad offers a platoon the best solution to address the tactical issues inherent to LSCO. First, with a lack of close air support or artillery to suppress and fix the enemy, the machine guns of the weapons squad are the only enabler a platoon leader has to achieve suppression and fixing.

enemy, the machine guns of the weapons squad are the only enabler a platoon leader has to achieve suppression and fixing. Second, because of a lack of surprise, the support by fire must be set quickly and without the assistance of the platoon leader or platoon sergeant. In LSCO, where time and tempo matter, this requires a flexible and empowered weapons squad leader who may have to fight into position. Third, as the first element with eyes on the objective, the weapons squad leader can be an intelligence, surveillance, and reconnaissance (ISR) asset for the platoon, feeding reports to the platoon leader. Because of these capabilities, the weapons squad and its leader are critical to the success of the infantry platoon in LSCO.

It should also be noted that the weapons squad offers other immensely important capabilities to a platoon in the form of additional weaponry and attachments. This includes the anti-armor assets organic to a weapons squad but can also be expanded to other attached elements that leverage the weapon squad's unique mission in the platoon or company fight. Because the support by fire is necessarily in a position with lines of sight onto the objective, it may be practical for attachments to be task organized with the weapons squad. This could include sniper or scout sections, forward observers, mortars, or anti-aircraft missile teams. This is especially pertinent in an LSCO environment where threats can come in many forms and in multiple domains.

Another consideration for the weapons squad in an LSCO environment is the fight to the support by fire. We can assume that any terrain that offers an advantageous position for our machine guns will also be advantageous for the enemy. With this in mind, it may be necessary for a platoon leader to task organize a rifle team or even a rifle squad to accompany the weapons squad and assist those Soldiers in fighting into their position. A contested support by fire is a very real possibility that must be taken into account in the planning process. These considerations are worthy of much further discussion; however, this article will focus on the core of the weapons squad — the machine guns.

Understanding How to Use the Weapons Squad

To understand why the weapons squad is the most useful tool platoon leaders have at their disposal, it's necessary to understand the concept of echelonment of fires. While this concept is usually associated with the use of indirect



Photo by SPC Justin W. Stafford

A Soldier with the 2nd Brigade Combat Team, 101st Airborne Division helps secure a village during training at the Joint Readiness Training Center at Fort Polk, LA, on 18 August 2020.

fires, it can be defined more broadly as the consecutive use of assets to set conditions for the decisive operation. It allows platoon leaders to preserve the combat power necessary to reach the decisive point — the point at which they have gained a marked advantage over the enemy, and the momentum is irreversibly in their favor. Let's say, for example, that you are a platoon leader tasked with seizing a piece of key terrain that is fortified by a trench system. You identify your decisive point as the moment that one fire team has established a foothold in the trench. How are you going to move from your assembly area to that decisive point and enable your decisive operation, the fire team in question, to establish its foothold? The answer is simple: echelonment of fires. Let's assume that battalion assets are directed elsewhere, and the only tools you have are company internal. The echelonment starts with the company 60mm mortars. The purpose of the mortars is to emplace your next enabler, your next echelon: the weapons squad. The mortars falling on and around the enemy in the trench keep their heads down and enable your weapons squad to move into position on terrain that overlooks the objective. Once the support by fire is set, the weapons squad takes over for the mortars and begins to suppress and fix the enemy on the objective. This allows your assault element to begin maneuvering towards the breach or the objective itself, covered by the weapons squad. Your weapons squad leader describes to you the situation on the objective over the radio.

At your last covered and concealed position, you set in a local support by fire, one of your assault squads. Once those Soldiers begin to fire on the objective, you give the order

to shift fire, and the weapons squad conducts its battlefield handover: They increase their rate of fire for a short period of time to allow for the local support by fire to pick up the suppression before the weapons shift off the main objective and lift fire. The local support by fire is closer to your attack position, so they have a better angle to maintain suppression on the objective without risking fratricide. Your assault squad moves up, conducts a breach, and sends a team into the trench. The enemy, having been continuously suppressed and fixed, can't react until it is too late. Your fire team has gained a foothold in the trench; your decisive point has been reached. You can't lose.

This is a relatively detailed description of a simple concept. It is summed up best in the tactical principle from FM 3-21.8, *Infantry Rifle Platoon and Squad*, that states, "Fire without movement is indecisive. Exposed movement without fire is disastrous." Your company assets enable your weapons squad to emplace, suppress, and fix. Your weapons squad enables your assault squads to suppress and attack. Your attack gets you to your decisive point and you win. The implication of this is that at the platoon level the weapons squad is your primary enabler for mission success. Just understanding this concept isn't enough, however. The most important part of this process is the relationship you have with your weapons squad leader prior to any triggers being pulled.

Trust as a Control Measure

Relationships are everything, and that principle is nowhere more important than with your weapons squad leader. Some platoon leaders will place their platoon sergeant with the support by fire during an operation. While there may be some limited circumstances where this makes sense, I would challenge any platoon leader to seriously reconsider that course of action. Weapons squad leaders are the second most experienced NCO in your formation and should be able to control their machine guns without the help of the platoon sergeant, who should be moving to points of friction and solving problems. This all starts with trust.

Trust, in this context, incorporates both interpersonal trust and tactical trust. Interpersonal trust is characterized by mutual confidence. This confidence that the platoon leader and weapons squad leader have in one another is built day-

to-day in garrison and in the field through rigorous training and validation. As a platoon leader, this must be a core aspect of your leadership: ensuring that your competence and confidence is displayed to your subordinate leaders daily. Tactical trust is characterized by common understanding and the principles of mission command. To generate this, it is critical that the weapons squad leader be a key part of the planning process and the troop leading procedures. The platoon leader must ensure that the weapons squad leader understands the mission, the plan, and the commander's desired end state. Additionally, the weapons squad leader needs to understand the mission's priority intelligence requirements and friendly force information requirements. This allows the weapons squad leader to provide relevant information to the platoon leader once visual contact with the objective is made.

An example of these two measures of trust in action is the dialogue that should occur between the platoon leader and weapons squad leader during an operation. Platoons leaders should empower their weapons squad leaders to tell them, after a shift is called, that they can provide more suppression before shifting fire. This can be based on time or conditions: "I can give 15 more seconds of suppression," or "I have you for 40 more meters before I need to shift." In this scenario, the platoon leader has interpersonal trust in the talent and judgment of the weapons squad leader and tactical trust in his or her understanding of mission requirements. An effective technique for my platoon that enabled this flexibility was having the guns shoot cyclic for 3-5 seconds prior to shifting. This allowed for extra suppression

and fixing as well as an audible confirmation of the shift.

As the leader forward with the assault elements, there is a tendency to be overconservative with the shift and lift fire call. If platoon leaders have the requisite trust in their weapons squad leaders, they will be able to maximize suppression and understand that no matter what happens, they will not be at risk of fratricide. Just as shift and lift signals are a control measure, trust is also a control measure. As long as the appropriate dialogue has occurred between the platoon leader and the weapons squad leader prior to the operation, the platoon leader will benefit from the best direct fire support possible. An empowered weapons squad leader is the most valuable asset that the weapons squad can have, and an effective weapons squad is the most valuable asset a platoon leader can have.

Notes

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Photo by SGT Thomas Calvert

Gun crews with 1st Battalion, 27th Infantry Regiment, 2nd Infantry Brigade Combat Team, 25th Infantry Division, establish a support-by-fire position during a fire support coordination exercise on 18 November 2019 at Pohakuloa Training Area in Hawaii.

Russian Future Combat on a Fragmented Battlefield

DR. LESTER W. GRAU
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Battles used to be compact events fought within the visual range of the contending commanders. Units used to march into battle in formation and fight shoulder to shoulder. Battlefields were chosen where terrain would not interfere with positioning of forces. Arrows flew while infantry advanced in close order with shield, spear, and sword at the ready. Combat was close and frequently highly lethal. Then technology intervened. Gunpowder and the bayonet allowed the infantryman to fight both the mid-range and close battle. Still, muskets were inaccurate, so marching columns still moved close to each other and fought standing up and shoulder to shoulder. Rifled muskets appeared during the Crimean War with devastating results. The rifle-armed British infantry decimated the musket-armed Russians during the Battle of Inkerman (5 November 1854).¹ Unfortunately, this vital lesson of Crimea had to be relearned in the carnage of the initial period of the American Civil War.

Both sides of the American Civil War initially trained using Napoleonic tactics based on the smooth-bore musket and more lethal bayonet. But the rifled musket was far more lethal at a much greater range. Soldiers learned the value of firing from a rifle pit, trench, or behind a barricade. It was dig or die. Battlefields expanded and commanders seldom saw the entire battlefield. Semaphore and the telegraph extended the ability of commanders to command. Battles lasted over days and weeks instead of hours. Rail transport proved vital to the logistics of war. In 1873, Major Wilhelm von Scherff published *Studien zur neuen Infanterie-Taktik* [*The New Tactics of Infantry*] while teaching tactics at the Prussian Military Academy. He based his book on his observations of the 1870-1871 Franco-Prussian War, which saw the wide use of cartridge ammunition, accurate rifles, machine guns, and artillery. This resulted in “the void of the battlefield.” With the combatants widely dispersed, the distance between the front lines expanded. Further, while weapons were far more lethal, casualty rates lessened and many more bullets were expended per casualty induced.²

The increased lethality of weapons was not the sole reason for dispersion of forces on the battlefield. The telegraph and the radio allowed commanders to control forces over a greatly expanded area. The steam engine, internal combustion engine, and the airplane allowed forces to move quicker over that expanded area. Armored vehicles provided a degree of protection as a sort of a mobile firing pit. The density of combat formations fell from 3,883 men per square

kilometer to 404 in World War I and 36 in World War II.³ Of course, this varied by theater, geography, terrain, and force, but the battlefield was becoming increasingly empty. One of the U.S. Army’s nine principles of war was that of mass.

“Mass: Concentrate the effects of combat power at the decisive place and time. Commanders mass the effects of combat power in time and space to achieve both destructive and constructive results. Massing in time applies the elements of combat power against multiple decisive points simultaneously. Massing in space concentrates the effects of combat power against a single decisive point. Both can overwhelm opponents or dominate a situation. Commanders select the method that best fits the circumstances. Massed effects overwhelm the entire enemy or adversary force before it can react effectively.”⁴

Thanks to technology, massing in space is getting more hazardous on the modern battlefield against near-peer competitors. This was a Soviet concern and is now a Russian concern.

Operation Desert Storm (17 January 1991 - 28 February 1991) had a major impact on military affairs. The U.S.-led coalition thoroughly defeated Iraq, although Iraq had a larger, modern armed force. Iraq lost 8,000-10,000 combatants compared to the 300 casualties of the coalition. The coalition, particularly the United States, had a distinct advantage in satellite technology, communications technology, and computer technology; plus, there were not too many places to hide large weapons and facilities in the open spaces of Kuwait and Iraq. Technology, training, and getting everything in place before initiating combat played major roles in the coalition victory. The lesson learned by smaller, less powerful militaries was not to fight powerful, technologically advanced forces in terrain that was optimum for modern maneuver war, but to move the fight to those areas where technology and maneuver is hampered or negated — mountains, jungles, deep forests, swamps, and urban areas. This works well for countries that have an abundance of difficult terrain, but countries are stuck with the terrain they own or occupy.

Fragmented Combat

Much of Russian terrain is wide plains, interrupted by large, slow-moving rivers, forests, and swamps. The road system is underdeveloped, and trafficability in European Russia is hampered by the very muddy roads of the fall and spring *razputitsa*. Although the Soviets fought the “Great

Patriotic War” [World War II against the Germans] with thousands of kilometers of tied-in trenches and fairly linear lines of combat, the wars of the future would change, and the Soviet Union prepared itself for nonlinear or fragmented (*ochagovyy*) combat.⁵ The Soviet General Staff envisioned future war as dynamic, high-tempo, high-intensity land-air operations which would extend over vast expanses and include new areas such as space. Tactical combat would be even more destructive than in the past and would be characterized by fragmented or nonlinear combat. The front line would disappear, and no safe havens or “deep rear” would exist. Nuclear war would be avoided at all costs, as it could escalate to strategic exchange and the “destruction of all the world’s people.”⁶

In the 1950s-1960s, the Soviets envisioned future war as a nonlinear, nuclear battlefield where atomic weapons created maneuver corridors through which Soviet ground forces advanced to conduct meeting battles. The tempo of the offensive provided flank security to the attacker who maintained the initiative by advancing deep into the communications zone of the enemy. Due to the expected widespread use of nuclear weapons:

Combat would be exceptionally dynamic and highly maneuverable, forcing subunits to change rapidly from attack to defense and back again, and to change its combat formations frequently. Attacks would develop irregularly with the absence of a continuous front line and would be conducted in wider zones along axes. Under these conditions, combat would have a fragmented [ochagovyy, nonlinear] nature at the various troop echelons.⁷

Indeed, “the broken nature of the front line, the presence of intervals and gaps formed in the enemy’s combat formation by nuclear strikes, and the conduct of the attack along axes create favorable opportunities for the employment of maneuver.”⁸

The U.S. Vietnam War and the later Soviet and U.S. wars in Afghanistan were clearly non-nuclear but also nonlinear. In the 1970s and 1980s, the Soviets re-envisioned future large-scale war as being fought conventionally under nuclear-threatened conditions and adapted tactics and reemphasized operational art in order to meet this new vision. The Soviets conceptualized nonlinear battle as separate “tactically independent” battalions and regiments/brigades fighting meeting battles and securing their flanks by obstacles, long-range fires, and tempo. There would be no safe areas, and combatants would suffer heavy attrition. Large units, such as divisions and armies, might influence the battle through employment of their reserves and long-range attack systems, but the outcome would be decided by the actions of combined arms battalions and regiments/brigades fighting separately on multiple axes in support of a common plan and objective. Attacks against prepared defenses would be a rarity, as neither side would be able to tie in their flanks or prepare defenses in depth.⁹

The fragmented defense is usually constituted on a wide

The Soviet General Staff envisioned future war as dynamic, high-tempo, high-intensity land-air operations which would extend over vast expanses and include new areas such as space. Tactical combat would be even more destructive than in the past and would be characterized by fragmented or nonlinear combat.

front with significant gaps between defensive concentrations, strong points, lines, and positions. This creates the possibility that an attack will quickly breakthrough into the depths, conduct flank attacks or envelopments, and break the defense into pieces. Consequently, the brigade or division in the greater depths of the defense supplements its routes of maneuver while securing communications with airborne, air assault, and diversionary reconnaissance groups. They rapidly emplace mine and demolition obstacles, and [conduct artillery] fires at the rear of the penetrated unit to their front in order to counter enemy maneuver and cause the enemy to regroup and resupply... When conducting a fragmented defense, it is necessary to consider the possibility that subunits and units may be surrounded and separated from the main body. It is absolutely necessary to constitute a 360-degree defense in which every element is tactically self-sufficient. It is also necessary to constitute a reserve.¹⁰

In the event that the enemy penetrates into a city, the fight may become fragmented. Subunits must conduct a determined fight to retain every building. Firing positions located in the upper floors may destroy the enemy located next to the defended building but also fire on distant targets in order to prevent the approach of the enemy reserve. Special attention must be paid to establishing flanking fires and interlocking fields of fire.¹¹

21st Century Tactical Combat Brigade Defense

Since the collapse of the Soviet Union, Russia has fought two wars in breakaway Chechnya, fought a brief engagement in Georgia, re-annexed Crimea, supported a Russian separatist movement in Ukraine, and provided direct aid and support to the government of Syria in its war of survival. Russia has changed its ground force structure to primarily a military district-combined arms army-brigade structure and revamped its approach to conventional maneuver war fought under nuclear-threatened conditions.¹² Improvements in technology have made the potential future battlefield more deadly and fragmented. Russia is currently looking at adjusting tactics to fight effectively and survive on the future battlefield.

This conceptual layout (Figure 1) postulates how a Russian independent motorized rifle brigade might conduct

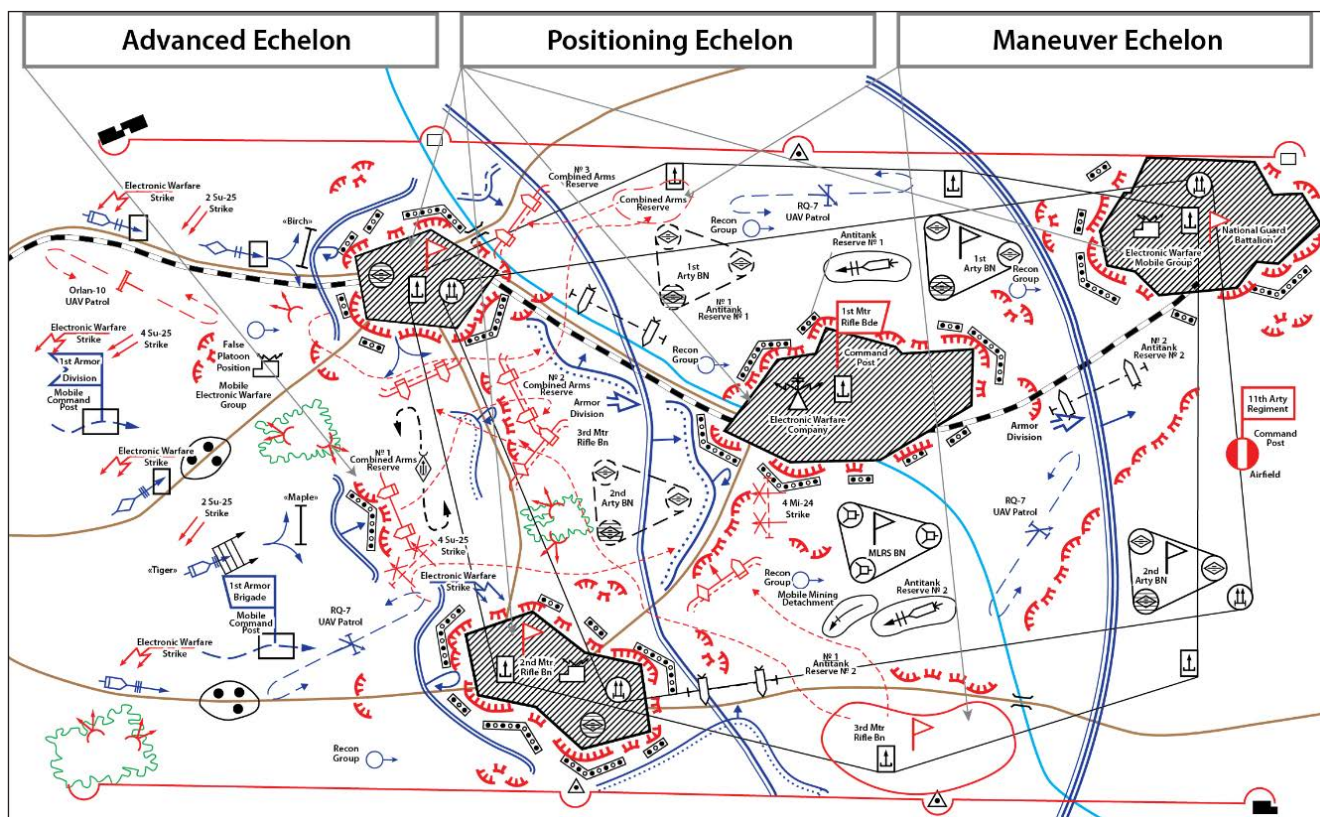


Figure 1 — A Russian Brigade Defends Against a U.S. Armor Division¹³

a fragmented defense against an enemy tank division using U.S. equipment. The defense is divided into an advanced echelon, a positioning echelon, and a maneuver echelon. The advanced echelon is constituted for maneuver combat and ambushes, disruption of the enemy's organized attack, and the creation of conditions to turn or draw the enemy attack in a predetermined direction with the goal of destroying him. The positioning echelon is constituted to repulse the enemy advance by inflicting casualties, retain important areas or facilities in the defensive area, and create the necessary conditions for the actions of the maneuver component. The maneuver echelon is constituted to cover intervals between defensive concentrations and open flanks, destroy penetrating enemy with fire from occupied positions (firing lines) and counterattacks, prevent enemy encirclement of defensive concentrations, and combat enemy diversionary forces.

The map scale is not indicated, but it is clearly wider than five kilometers and much deeper. The defense sits astride two east-west axes. The northern is a road and single-track rail axis passing through three villages. The southern is a road passing through a village. A motorized rifle battalion each defends the eastern-most villages. The third motorized rifle battalion is split into a northern and southern assembly area ready to maneuver where needed. The tank battalion has attached a company to each of the motorized rifle battalions. The two howitzer battalions are forward in temporary firing positions while the multiple launcher battalion occupies its primary firing positions.

In the north, the enemy attacks along the road and rail

line with a tank and mechanized infantry company where it is met with electronic jamming, two SU-25 ground attack aircraft, two howitzer concentrations, an ambush, and standing artillery barrage "Birch." An Orlan-10 unmanned aerial vehicle (UAV) monitors this enemy attack. The town is defended by the 1st Motorized Rifle Battalion, a tank company, and air defense assets. The attack is thwarted. In the center, the enemy tank division mobile headquarters is attacked by electronic jamming, a Multiple Launch Rocket System (MLRS) artillery concentration, and four SU-25 ground attack aircraft.

An enemy tank battalion attacks on a northeast feeder road to the northern town where it is met with a howitzer fire concentration, a MLRS-delivered Family of Scatterable Mines (FASCAM) minefield, and an ambush. South of this, an attacking mechanized infantry battalion is met with an air strike by two SU-25 ground attack aircraft, a double moving barrage "Tiger," and standing artillery barrage "Maple." The attacking battalion goes on line only to encounter a minefield and defenses from the combined arms reserve, flanking fire from an ambush and four Mi-24 attack helicopters, and close air defense from a 2K22 "Tunguska" gun/missile track. To the south, the attacking enemy First Mechanized Infantry Brigade, supported by a RQ-7 Shadow UAV, is met with electronic jamming, an artillery howitzer concentration, a MLRS-delivered FASCAM minefield, two ambushes, and the defenses of the 2nd Motorized Rifle Battalion in the southern town. The 2nd Battalion is augmented with multiple air defense and electronic warfare assets. The attack against the southern village also fails.

The attacking enemy in the north takes up positions outside the northern village and tries to bypass it. Its northern bypass is stopped by a combined arms reserve counterattack from the 2nd Motorized Rifle Company of the 3rd Motorized Rifle Battalion. Its southern bypass attempt makes headway and causes the withdrawal of the center reserve forces into prepared positions at the mouth of a fire sac between the northern and southern villages. The second howitzer battalion begins to displace by battery to its primary firing positions.

A counterattack by the 3rd Motorized Rifle Battalion stops the enemy advance in the center. The enemy tank division builds up its forces for a push in the center while conducting electronic jamming, UAV operations, and ground surveillance. The first howitzer battalion begins to displace by battery to its primary firing positions. When the enemy attack resumes, the combined arm reserve and 3rd Motorized Rifle Battalion withdraw from the fire sac to hold the shoulders of the sac from prepared positions and with the antitank reserve. Four Mi-24 helicopter gunships attack the enemy. The enemy attack is again stopped by the defenses surrounding the third village. The third village holds the brigade and 3rd Battalion main command posts (CPs). The MLRS battalion begins to displace by battery to alternate firing positions. The supporting aviation has displaced to another airfield. The 11th Artillery Regiment is positioned around the airfield to provide supporting fires for the defending Russian brigade. The depleted enemy tank division skirts the third village and attacks along the rail and highway line toward the fourth village, which is held by a Russian National Guard battalion and a company *bronnegruppa* from the second battalion.

Commentary: How successful the brigade defense has been depends on how much of the enemy division it was able to kill or disable. The defense is more lethal than the attack if the correlation of forces and means is right and sufficient supplies and ammunition are at hand. Built-up areas are easier to defend than open areas, so the brigade chose to create strongpoints in the villages and use fires and a series of prepared positions and counterattacks to weaken the enemy moving through the more open terrain. The Russians employ a fire sac where possible and did so in this example. A fire sac allows the defender to engage the point and flanks of an enemy attack simultaneously. The defense employs artillery and aviation to engage the attacking enemy. Control of own air defenses when friendly forces are flying overhead is dicey. Normally, Russian close air support is deployed on the flanks or flies a marked route over the ground force.¹⁴ Widespread electronic countermeasures are employed in this example, indicating that much of the Russian defense is fiber optic or wire based. (The presence of internal security troops from the Russian National Guard indicates that this fight is in Russia or very near her borders. Fiber-optic networks are increasingly common in Russian populated areas, and the military has a system of buried-wire drop boxes installed in key areas of military interest.) The attacker is faced with the dilemma of continuing his advance, leaving intact enemy forces on his line of communications, committing follow-on

forces to deal with the villages, or reducing each of the urban strongpoints in a lengthy attrition fight.

Much has been written in Russian professional military journals about the use of the maneuver defense in conventional maneuver war under nuclear-threatened conditions. The maneuver defense also faces the fragmented battlefield but fights a long attrition battle, trading space for time and terrain advantage while leading to a culminating stationary defense from which a counteroffensive can be launched. The above alternate defense relies on the strength of the urban defense combined with fires, rapidly-laid obstacles, electronic combat, and counterattacks. It is somewhat reminiscent of the recent experience of fighting in Syria and Iraq with the forces of ISIS.

21st Century Tactical Combat Brigade Attack

The decisive aim of an attack is to achieve the complete destruction of the enemy throughout the entire depth of his defense, which reinforces synchronized actions in time and the missions of autonomous tactical formations.¹⁵

Figure 2 postulates how a Russian separate motorized rifle brigade might attack as part of a three-brigade combined arms army offensive in an attack from positions in close contact. It focuses on the actions of the 1st Separate Motorized Rifle Brigade as it engages part of the enemy 1st Tank-Mechanized Brigade, which is organized into battalion and company tactical groups. The second brigade attacks to its north, and the third brigade attacks to its south. The brigade will face six-plus company tactical groups, a howitzer battalion, and a MLRS battery. The attack is divided into a first (assault) echelon, an anchoring (consolidation) echelon, and a second (reserve) echelon. The first (assault) echelon attacks and captures enemy objectives forward of the line of contact and in the depths. The anchoring echelon is constituted to retain important areas, lines, and points that would deny enemy deep maneuver and counterattacks. The second (reserve) echelon is constituted to replace assault subunits that have lost their combat potential to augment strength, destroy the enemy, resolutely retain military objectives, and develop the high tempo of the advance.

Again, the map scale is not indicated. The attack has an intermediate objective at the rear of the two forward defending companies and a subsequent objective at the rear of the enemy brigade defense. The brigade attacks with two reinforced battalions on line. The tank battalion has been attached to the attacking units. The two howitzer battalions are positioned close to the attacking battalions while the multiple rocket launcher battalion is further back. Two SU-25 ground attack aircraft are on-call to strike on the northern flank of the attack while four Mi-24 helicopter gunships are on call on the southern flank. The antitank battalion and engineer battalion follow the attack.

The assault battalions attack the northern and southern companies in sector, leaving the artillery to pound the middle company while the assaulting battalions bypass the middle company. The enemy brigade CP and artillery battalion are

forced to withdraw. The 3rd Battalion (the anchoring echelon) pushes through the bypassed enemy middle company and seizes two assembly areas for disabled equipment, wounded personnel, prisoners, and personnel separated from their subunits. The northern assaulting battalion pins the defending enemy reserve company in place and bypasses it to reach and push through the immediate objective. The southern attacking battalion pushes forward to the immediate objective and continues on to attack a leading company of the enemy brigade rear. It is supported by four Mi-24 attack helicopter gunships, electronic jamming equipment, and is reinforced by the brigade reserve.

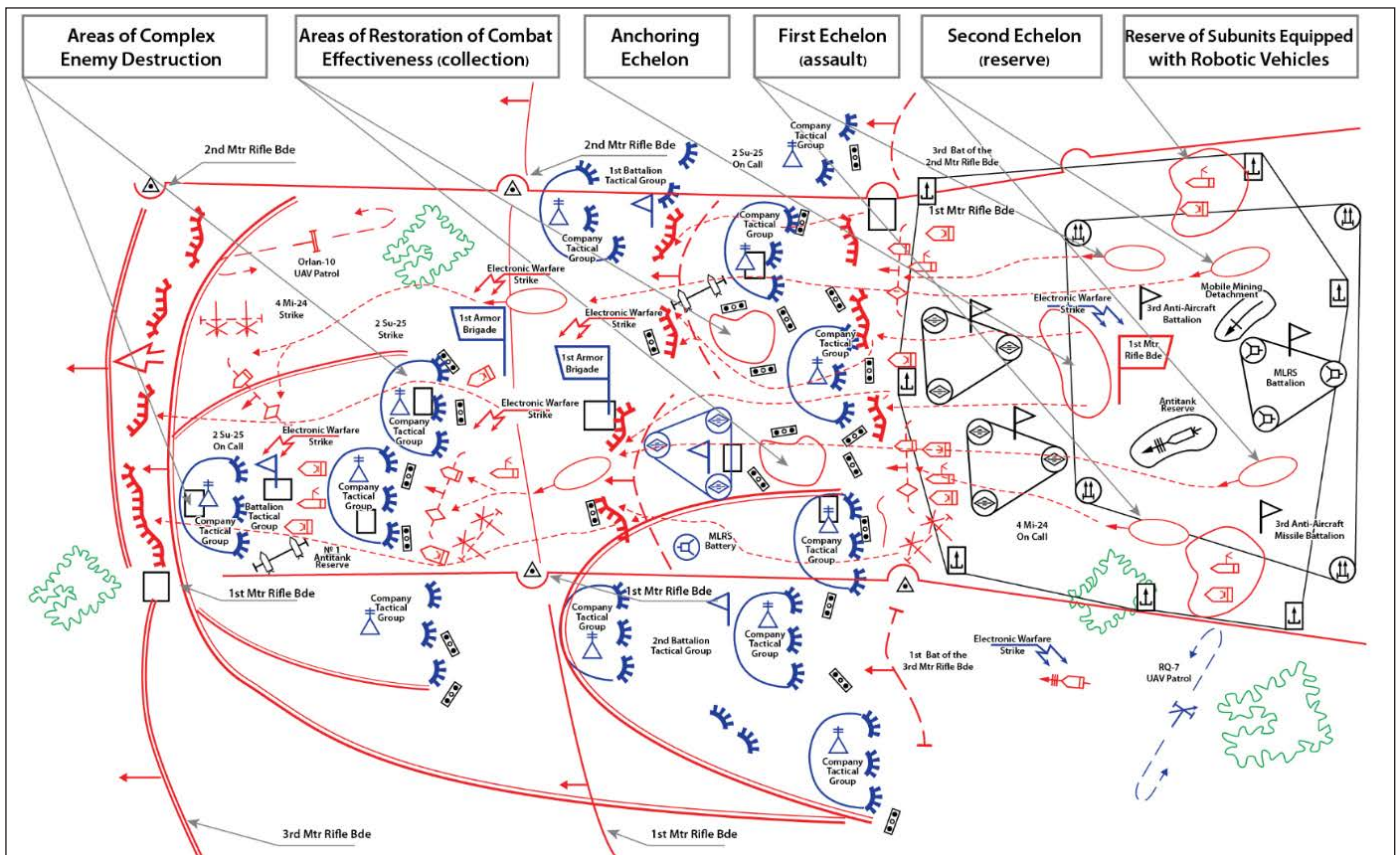
The northern battalion pushes through to bypass a defending enemy and to attack the last enemy reserve company. The battalion is supported by four Mi-24 attack helicopters, two SU-25 ground attack aircraft, an Orlan-10 UAV, and electronic jamming equipment. The southern attack battalion completes the destruction of its company and continues to push through the enemy brigade area to capture or destroy its trains.

Commentary: This is not the fight described in current Russian Army regulations. The brigade attack destroys four of the six-plus companies in its area of responsibility. The bypassed two companies are damaged and held in position by the consolidation echelon or have retreated. This new element, the anchoring or consolidation echelon, polices up the battlefield and helps reconstitute the force. This is very much an aviation, artillery, and electronic warfare fight

with their fires enabling maneuver. The maneuver is fluid and leaves intact-but-mangled enemy behind as it pushes to the objective. The tanks are integrated as part of the first echelon and perhaps the reserve. Of particular interest is the presence of subunits equipped with robotic vehicles. The Russians have been developing robotic tanks and other systems for use in the close fight or long-range surveillance. In this example, they appear to be robotic tanks and mine-clearing robots, which initially follow the two initial attacks as well as constituting two mobile reserves. Evidently, when the attack meets stiff resistance, the robots are deployed forward to kill the enemy or absorb his fire while counter-fire pinpoints and destroys the resistance and to clear paths through minefields. The two examples were published in the *Journal of the Academy of Military Science* — a part of the General Staff that conceptualizes future war. From the technology depicted, this is near-term future war. It is not the battle described in the Russian regulations but reflects the impact of Syria and technology advances on the military thinkers. How to mass this three-brigade offensive in this era of detect-destroy technology is a puzzler. This attack is from positions in direct contact — not the favored form of attack for Russian forces but common in the fighting in Syria.

There is nothing fragmented about this attack. Presumably, this situation occurred from advancing through a fragmented battlefield involving road marches and meeting battles until an enemy encounter resulted in one or both sides going to ground in a hasty defense. The enemy force is formidable

Map 2 — A Russian Separate Motorized Rifle Brigade Attacks Part of an Enemy Tank-Mech Brigade¹⁶



enough to require the massing of three brigades by the combined arms army to defeat it.

Conclusion

Technology will continue to expand and empty the battlefield and move it into difficult terrain. The Soviets were quick to realize the value of robotics to augment manpower. The T-62 (introduced in 1961) was the last Soviet/Russian tank to have a four-man crew. The T-64 (fielded in 1964) had an autoloader and a three-man crew. The autoloader enabled the T-64 to maintain a low silhouette, 38-ton weight and employ a 120mm main gun. Current Russian tank design engineers are working on reducing the size of a tank turret and creating a future tank with a two-man crew. Autonomous robots, such as UAVs, are a fairly recent innovation in the Russian armed forces. The use of autonomous robots for conducting ambush and delivering artillery fire are being studied. Tactical directed energy weapons are being developed to protect and attack optics and optical-electronic systems as well as front-line combat, where such systems could increase the lethality of antitank weapons by 20-30 percent. Tactical directed energy weapons could also increase the lethality of artillery fire and air defense weapons. This technology might prove effective against UAVs.¹⁷ The concept of robot tanks, controlled by a master tank, has occasionally shown up in Russian writings.

Russia is preparing its forces to fight conventional maneuver war under nuclear-threatened conditions; however, it is considering different tactics for different conditions including difficult terrain and advancing technology. Russia's recent conflicts have had an impact on this consideration, especially their recent efforts in Syria.

Notes

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¹² Lester W. Grau and Charles K. Bartles, *The Russian Way of War: Force Structure, Tactics and Modernization of the Ground Forces*, Foreign Military Studies Office, 2016, <https://community.apan.org/wg/tradoc-g2/fmsop/fmsobookshelf>.

¹³ S.I. Pasichnik, A.S. Garvardt, and S.A. Sychev, "Перспективы развития способов боевых действий общевойсковых формирований тактического звена" [Prospect for the Development of Methods of Combat Action by the Combined Arms Tactical Formations], *Вестник Академии Военных Наук [Journal of the Academy of Military Science]*, January 2020, 39.

¹⁴ Lester W. Grau and Charles K. Bartles, "Russian Aviation in Support of the Maneuver Defense," *Aviation Digest* (October-December 2018), accessed from https://home.army.mil/rucker/application/files/5015/6026/7059/AVN_DIG_2018_10-12.pdf.

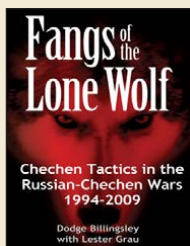
¹⁵ Pasichnik et al, 40.

¹⁶ Ibid, 41.

¹⁷ Ibid, 41-42.

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Dr. Chuck Bartles is an analyst and Russian linguist with FMSO at Fort Leavenworth. His specific research areas include Russian and Central Asian military force structure, modernization, tactics, officer and enlisted professional development, and security-assistance programs. Bartles is also a space operations officer and lieutenant colonel in the Army Reserve who has deployed to Afghanistan and Iraq, and who has served as a security assistance officer at embassies in Kyrgyzstan, Uzbekistan, and Kazakhstan. Bartles has a bachelor's degree in Russian from the University of Nebraska-Lincoln, a master's degree in Russian and Eastern European Studies from the University of Kansas, and a PhD from the University of Missouri-Kansas City.



Fangs of the Lone Wolf: Chechen Tactics in the Russian-Chechen Wars, 1994-2009

Books on guerrilla war are seldom written from the tactical perspective and from the guerrilla's perspective. *Fangs of the Lone Wolf* is an exception. These are the stories of low-level guerrilla combat as told by the survivors. They cover fighting from the cities of Grozny and Argun to the villages of Bamut and Serzhen-yurt, and finally the hills, river valleys, and mountains that make up so much of Chechnya. Guerrilla warfare is probably as old as man, but it has been overshadowed by maneuver war by modern armies and recent developments in the technology of war. This book provides a unique insight into what is becoming modern and future war.

<https://community.apan.org/wg/tradoc-g2/fmsom/fmso-books/195587/download>

Applying Multi-Domain Effects to Operation Inherent Resolve

MAJ BENJAMIN MURPHY (UK)
COL G. DAMON WELLS



Soldiers with Alpha Company, 1st Battalion, 6th Infantry Regiment, 2nd Armored Brigade Combat Team, 1st Armored Division, fire illumination rounds from a 120mm mortar during base defense live-fire training in the Central Command area of responsibility on 16 March 2021.

Photo by SGT Torrance Saunders

*“Out of intense complexities,
intense simplicities emerge.”*

— Sir Winston Churchill¹

Multi-domain operations (MDO) are the U.S. Department of Defense’s most recent solution to the complex, multifaceted problem of state actors subverting Westphalian conventions.² At its heart, MDO evolved from the natural and inevitable fusion of accelerated improvements in technology, the complexity of modern competition, and need for rapid battlefield decisions at echelon. The concept of simultaneously employing ways and means across multiple domains to achieve a specific end is not new. This employment technique historically provided commanders options for executing simultaneous and sequential operations by integrating capabilities across domains. When applied appropriately, these operations present multiple dilemmas to an adversary, achieve friendly physical and psychological advantages, and maximize influence and control over the operational environment.³ This is as true for the Combined Joint Task Force (CJTF) in Phase IV of Operation Inherent Resolve (OIR) as it is for the doctrinal MDO problem set of anti-access and area denial (A2AD) systems.

Although MDO shares common traits with concepts like Airland Battle, there are important differences. Airland Battle doctrine focused on the three dimensional and technological impacts of modern warfare that prescribed rapid, integrated air, and ground maneuvers and viewed a battlefield extended in both the dimensions of geography and time.⁴ This informed NATO’s deep battle warfighting concept to combat against a potential Soviet attack in Europe. In comparison, MDO focuses on the competition continuum and the requirement for parity of effort throughout. It incorporates the fundamental changes in the character of warfare and acknowledges that constant competition between nations with sporadic escalation to conflict is the new normal. While not a direct translation of MDO doctrine into application, Operation Inherent Resolve’s current activities fit the model in practice. At the lower echelons, organizational structure, resource availability, and competition spectrum specifics may not truly match the MDO model. However, it can be scaled to function in varying environments through the understanding and deliberate application of the U.S. Army’s principles.⁵ CJTF-OIR created the Multi-Domain Effects Directorate (MDED) as a functional bridge to enable a typical CJTF structured headquarters to leverage the advantages created through a multi-domain approach.

Conceptually, U.S. forces seek to execute MDO in several stages. Initially, the main effort is the penetration of enemy A2AD systems to enable strategic and operational maneuver.⁶ The next step is the disintegration of the aforementioned A2AD system to enable operational and

tactical maneuver for U.S. forces and partners. Exploiting the resulting freedom of maneuver achieves operational and strategic objectives which defeats enemy forces across the domains. The final stage is re-entering normal competition and consolidating gains before forces return to competition on favorable terms to the United States and allies.⁷

CJTF-OIR’s initial analysis of restructuring into an MDO approach was a function of environmental complexity and change from Phase III to Phase IV. CJTF’s primary mission is the defeat of Daesh across designated regions of Iraq and Syria. The design of the campaign enables whole-of-government actions to increase regional stability and is currently in its fourth and final phase. During the first three phases of the campaign, running from 2014 through mid-2020, the Coalition trained and equipped partner forces in Iraq and Syria, advised and accompanied those forces during operations, provided intelligence, and conducted airstrikes to enable the territorial defeat of Daesh. As a result, Daesh lost its territorial hold in Iraq in December 2017 and in Syria in March 2019, but it has continued to operate as a low-level insurgency in both countries. In the summer of 2020, OIR transitioned to Phase IV of the campaign. In this phase, the Coalition largely shifted from hands-on training, developing, and assisting partner forces in both Iraq and Syria to advising and enabling them, mainly remotely, from consolidated bases during operations against Daesh. Training of partner forces continues in Syria, while in Iraq Coalition efforts focus on reforming and professionalizing Iraqi security institutions and combating corruption to ensure the enduring defeat of Daesh.

In both Iraq and Syria, OIR’s most significant security threats come not just from Daesh but from other forces working against Coalition interests in each country. In Iraq, several Iranian-aligned militia groups (IAMG), including some incorporated into the Popular Mobilization Forces (PMF), remain hostile toward the U.S. troop presence.⁸ IAMG violence against Coalition interests in Iraq increased ahead of the first anniversary of the U.S. strike on the Iranian Revolutionary Guards Corps’ Quds Force Commander, General Qassem Soleimani, and again with the advent of Ramadan. In Syria, Coalition forces continue to operate in a complex security environment in close proximity to Russian, Iranian-aligned, Syrian regime, and pro-regime forces. These actors moved into the areas of northeastern Syria U.S. troops vacated when Turkey launched an incursion into northern Syria in October 2019.⁹ The Defense Intelligence Agency reported that malign actors, including Daesh and forces associated with Iran and the Syrian regime, pose the most significant threat to the Coalition and its mission.¹⁰ Moreover, the U.S. must embrace the complexities of a Joint Coalition headquarters, and relationships with the Government of Iraq (Gol), the Iraqi Security Forces (ISF), and Counter-Terrorism Service (CTS) forces, as well as Coalition Aligned Syrian Forces (CASF). Plotted graphically, the complexity of actors in the CJTF area of operations represents points on nearly every section of the cooperation/conflict continuum.

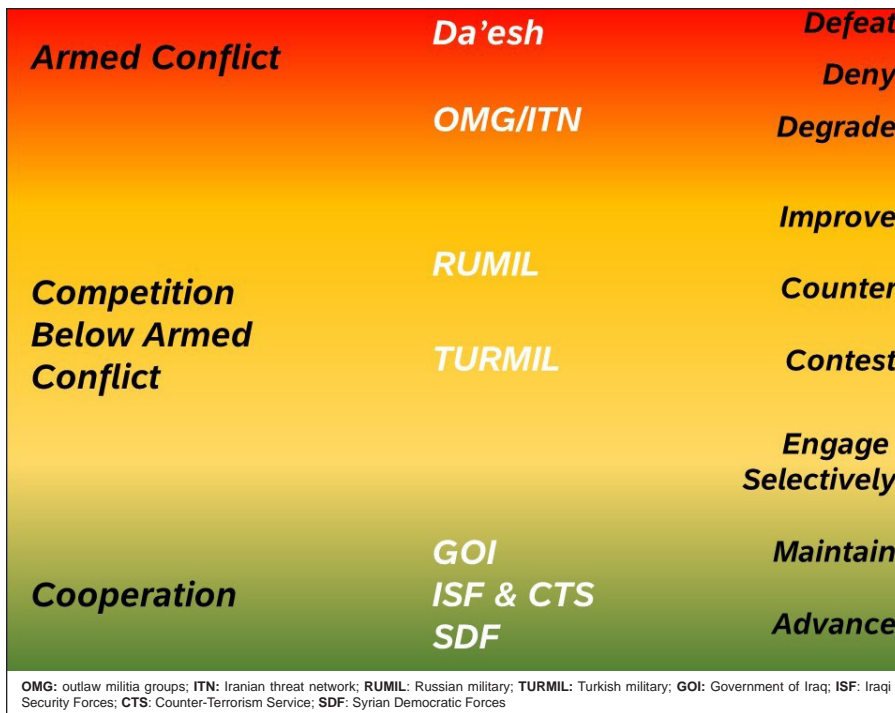


Figure 1 — Actors in the CJTF-OIR Operational Area Span the Competition Continuum from Cooperation to Armed Conflict

Daesh remains the primary adversary and they demonstrate a willingness to try to retake territory in Iraq displaying the makings of a growing and dangerous insurgency. While technically defeated, they maintain the capability to conduct limited actions against the local populace and Coalition forces in Iraq and Syria, thus efforts to prevent their resurgence cannot be underemphasized. As part of the natural progression of conflict, the kinetic tools and methods previously employed in Phase III (Defeat-Daesh) operations are no longer appropriate and relevant to Phase IV (Normalize). Non-kinetic means and non-lethal effects now have primacy while the Coalition achieves the gradual and deliberate transition of operations to the host nation forces.

During Phase III operations, the CJTF-OIR staff structure included a Fires cell (CJ34) and an Information Operations (IO) cell (CJ39). Fires had limited assets with a sole focus on kinetic strikes and consisted of High Mobility Artillery Rocket System (HIMARS), M777A2, and air assets. In contrast, IO focused on longer term planning and consisted of multiple information-related capabilities (IRCs), including cyber and electromagnetic activities (CEMA), Psychological Operations (PSYOP), special technical operations (STO), special activities, and space (specifically Space Force). This is not atypical for a standard military (especially U.S.) headquarters (HQ) staff. Indeed, there was some overlap in the functions of Fires and IO as might be found in a typical U.S. JTF or division-level headquarters. However, integration and interaction were not the default. This organizational construct created particular disadvantages. First, there were limited interactions between the Fires and IO cells. With a focus on purely kinetic strikes, the Fires cell had minimal deliberate interactions with the non-kinetic IO

cell. Additionally, increasing levels of classification for IO capabilities up to U.S. Top Secret (TS)/Alternative Compensatory Control Measures (ACCM)/Not Releasable to Foreign Nationals (NOFORN) means those particular functions became stovepipes. Often separated from the remainder of the HQ, IO staff members planned and conducted their tasks in isolation from other sections and sometimes independently of other capabilities within CJ39. On occasion, this even resulted in divergence from the campaign's priorities and objectives which had the potential to degrade the efficiency of the capabilities themselves and the HQ as a whole. Predictably, the lack of a truly integrated effects function created a substantial gap in effectiveness during Phase IV planning and execution.

To adapt to the changing operational environment, CJTF-OIR undertook a structural review in January 2021, creating the MDED. The intent was to scale down from the pure MDO model (multi-domain task force) in order to meet the requirements of the CJTF-OIR Phase IV environment.¹¹ Additionally, this new staff section would establish itself and function as a microcosm of the wider staff. The MDED organization draws from appropriately qualified and experienced pan-service Five Eyes personnel within CJTF-OIR.¹² Accordingly, the design of the organization was not from the ground up, with a requirements model and an understanding of the exact nature of operational effectiveness.

In simple terms, the creation of the CJTF-OIR MDED consolidated the CJ34 and CJ39 sections — a fusion of kinetic and non-kinetic fires to provide integrated delivery of lethal and non-lethal effects by design. This model has proven efficacious, and conditional recommendations are only slight modifications, each depending on the exact requirements of the operational environment. The conditions to successfully operate in Phase IV primarily emphasize non-lethal effects and environmental influence while reducing the employment of lethal fires. CJTF-OIR's Line of Effort 2 is "Enhance Partner Force Capabilities" so MDED's primary planning focus was to ensure that the ISF, CTS, Syrian Democratic Forces (SDF), and other CASF conducted kinetic operations while Coalition efforts focused on the ability to shape the environment so that the kinetic effects were optimized. Consequently, MDED's primary charter is the convergence of partner operations and Coalition non-lethal effects. The MDED, while not strictly adhering to MDO as outlined by U.S. Army Training and Doctrine Command (TRADOC) Publication 525-3-1, *The U.S. Army in Multi-Domain Operations 2028*, adopted multi-domain thinking and an MDO approach to the CJTF-OIR mission. Through the creation of the MDED, CJTF-OIR created a scaled down MDO hub within the larger headquarters.

The ultimate benefit of changing CJTF-OIR's HQ structure to an MDED concept versus the standard Joint Effects concept may be subtle, but it is real. An important point of clarity is that MDO is not just combined arms with some space and cyber capabilities mixed in, but it is a fundamentally new way of thinking about warfare across both the competition and conflict phases of war to either make conflict unpalatable or victory decisive. Integration of all effects substantially increases effectiveness, and the MDED achieves this by serving as CJTF-OIR's integration cell for multi-domain operations and effects. This requires an intimate understanding of the environment, campaign objectives, intermediate military objectives, and operational effects while ensuring that all assets and organizations align optimally to achieve these effects with the requisite synergy and convergence.

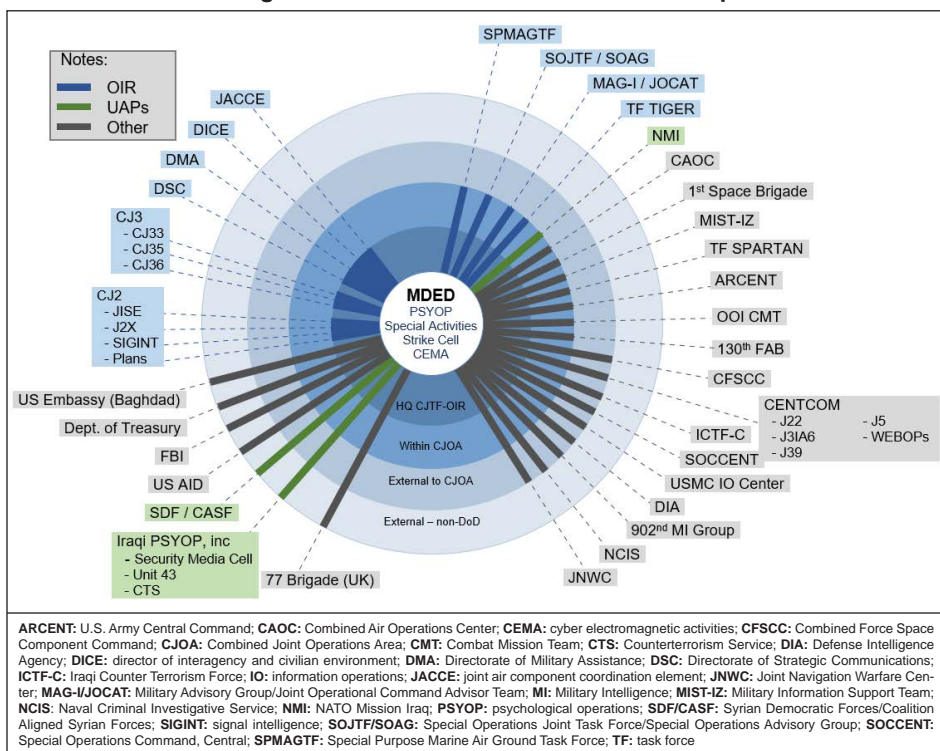
Conceptually, in lieu of a pan-staff MDO approach, the MDED naturally became CJTF-OIR's nexus by serving as its primary integrator, with reach extending into the various other staff sections and, importantly, into subordinate and external units and other governmental agencies. This integrative capacity is the root of MDO in practice. Consequently, the MDED's influence is broad, and it has become a significant contributor to CJTF-OIR's operational effectiveness; it is exponentially more effective than the sum of CJ34 and CJ39.

By ensuring the inculcation of a multi-domain approach, MDED planners in each functional area are better equipped to employ their own effects in conjunction with other capabilities to enhance operational effectiveness. This is a learning process, so it was not immediately apparent, but the leaders

quickly understood the benefit and actively supported the process. Additionally, with more emphasis on the MDO team versus individual assets, the senior capability representatives were able to step up and away from their stovepipes and more efficiently lend their experience to shaping multiple plans across the HQ. Finally, with more senior capability representatives engaged in the process, there was enough functional overlap that the team created an increased capacity for planning and cross-domain influence throughout the current and future operations staff sections as well as to commanders. In practice, only a moderate amount of time and effort determines which domain was relevant or how many domains to leverage for the sake of multi-domain adherence. Instead, the MDED solved problems using all the available assets, organic or externally requested, including the doctrinal air/land/sea/cyber/space as well as interagency, special operations forces (SOF), human, informational, and any other "domain" available. Thus, regardless of how one defines a domain, MDED leveraged it. There was less concern about which domains to employ and more focus on maximizing the use of resources to achieve the desired effect on targets.

Physical structural changes enabled and accelerated this cohesion. The creation of bigger, open workspaces ensured previously disparate teams were now in close proximity. While obvious to the point of cliché, and frequently downplayed as a merely superficial technique, it created an immediate dividend for the CJTF-OIR MDED team. Previously, the split of CJ34 and CJ39 across three distinct office spaces and two sensitive compartmented information facilities (SCIFs) exacerbated the functional stovepiping. By creating a large, open planning room, a large conference room, and one executive area, it nested team members together and they became more collaborative, which enabled the creation of novel solutions against tactical and operational issues. To mitigate against segregated SCIF areas, there were several weekly touchpoints introduced to ensure the SCIF workers had regular interactions with the remainder of the team. These centered around two weekly MDED meetings conducted each Saturday; the first was a morning huddle in which every team member, agnostic of rank, briefed their current projects for no longer than five minutes. The second meeting was an afternoon leadership seminar that served as an informal touchpoint and encouraged lateral thinking and problem solving within the group. These seminars were unique and beneficial as the topics were independent of current problem sets. Finally, daily touchpoints each morning quickly covered priorities, changes in the environment, progress on tasks, or other topics.

Figure 2 — MDED Stakeholder Relationships



The primary manifestation of these changes was the noticeably enhanced team cohesion and increased unity of effort across the MDED. A more integrated team enabled mutual understanding and deconfliction of capabilities while simultaneously promoting diversity of thought. This led to increased effectiveness of planning and problem solving by introducing novel solutions to traditionally stovepiped problems, which achieved the desired effects. A microcosm of this increased efficiency was the MDED plans team's approach to CJTF-OIR planning groups. Planners in the MDED are both lethal and non-lethal subject matter experts (SMEs) so they continually look for opportunities to leverage assets and effects across domains to create convergence of effects, as well as spatial or temporal advantages and opportunities to defeat competitors' short-term niche environmental supremacy. The CJ39 personnel's full integration into the larger staff created the most dramatic effect, facilitating a noticeable depth of environmental awareness and response time.

MDED planners operate in both the current and future operations sphere, so they have awareness of operational impacts as they happen, insight into how current conditions affect future operations, and the ability to anticipate changes in the operational and information environment. Having broader awareness has created a better ability to plan and operate under the umbrella of campaign priorities; this ensures the organization is deliberately driving toward the correct effects and desired endstates or conditions. As a result, the MDED achieves better understanding of desired effects across the HQ and highlights opportunities to leverage multiple assets for convergence, which creates a temporal or spatial advantage. Placing the relevant capability SME into the planning event at the right time enables efficient planning. More efficient use of SME time provides an ability to focus on relevant problem sets, improve synchronization, and then effectively employ the available assets.

A secondary benefit was the inculcation of an execution-focused mentality into the information-related capabilities. By being better linked to the Strike Cell and the tactical forward HQ, these previously long lead capabilities' SMEs were exposed to the benefits of maintaining awareness of the current tactical dilemmas. They could now access pre-authorized response options and concepts of operations (CONOPs) to use in real-time situations, which empowered commanders with the ability to leverage a wide range of lethal and non-lethal effects. This gave them the ability to create multiple dilemmas for our adversaries, which in turn generated flexibility in decision making at the operational level and mitigated CJTF-OIR's inability to ensure supremacy across a wide combined joint operational area

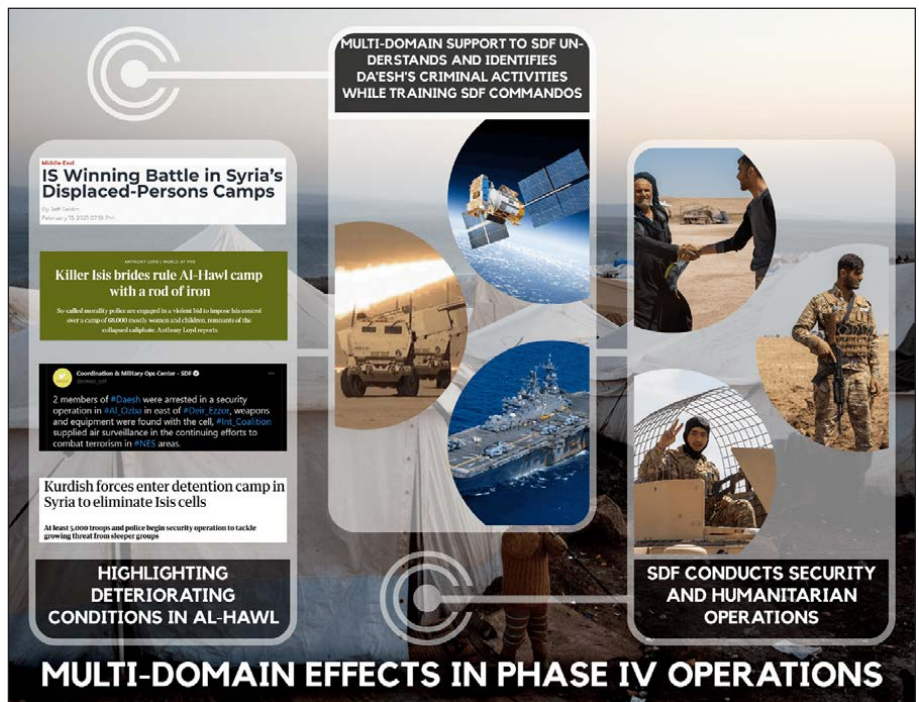


Figure 3 — Multi-Domain Effects in Phase IV Operations

by guaranteed provision of localized superiority at the commander's time and place of choosing.

Instead of agonizing about the difference between joint and multi-domain, consider multi-domain as the natural extension of joint. Joint is a step up from past operations, which were fairly service/domain centric. The joint concept focused on the integration of services and took the military's ability to synchronize and coordinate to the "next level." MDO is the natural extension of joint — it is the new next level. Where previously conducting joint operations was a pivotal milestone, it should now be the baseline. When you shift your baseline, you must conceptualize what your next step up must be. Multi-domain improves joint operations. We have enough practice and experience with joint operations to refine, improve, and introduce further complexity. Also, when the joint concept originated, the threat was markedly different than current and future threat environments. Joint simply isn't good enough anymore. MDO enables us to simplify the conduct of operations with partner force and ground forces, coalition, cyber, space, and technical effects to ensure success at a specific point in the tactical battlefield. MDO is not just a concept applicable to great power competition in the Pacific. The CJTF-OIR MDED experience proves that it can and should be modified to fit the environment then applied whenever and wherever U.S. forces operate.

Notes

- ¹ Sir Winston S. Churchill, *The World Crisis, Volume III: 1916-1918* (London: 1927).
- ² Dean S. Hartley III and Kenneth O. Jobson, *Cognitive Superiority: Information to Power* (Zurich: Springer International Publishing, 2021).
- ³ LTG Michael D. Lundy, "Meeting the Challenge of Large-Scale Combat Operations Today and Tomorrow," *Military Review* 98(5) (September-October 2018): 111.
- ⁴ COL (Retired) Scott King and MAJ (Retired) Dennis B. Boykin

IV, "Distinctly Different Doctrine: Why Multi-Domain Operations Isn't Airland Battle 2.0," *Army* 69 (3) (March 2019).

⁵ TRADOC Publication 525-3-1, *The U.S. Army in Multi-Domain Operations in 2028*, 6 December 2018.

⁶ A2AD is commonly accepted as layered and integrated; long-range precision-strike systems, littoral anti-ship capabilities, air defenses, and long-range artillery and rocket systems.

⁷ U.S. Army Multi-Domain Transformation – Ready to Win in Competition and Conflict, Chief of Staff Paper #1, 16 March 2021, accessed from <https://api.army.mil/e2/c/downloads/2021/03/23/eeac3d01/20210319-csa-paper-1-signed-print-version.pdf>.

⁸ Lead Inspector General for OIR's Quarterly Report to the U.S. Congress, October 1, 2020 – December 31, 2020, Washington DC: 9 February 2021.

⁹ Edwin van Veen, Engin Yüksel, and Haşim Tekineş, "Waiting for Blowback: The Kurdish Question and Turkey's New Regional Militarism," Clingendael's Conflict Research Unit Policy Brief, September 2020.

¹⁰ Lead Inspector General for OIR's Quarterly Report.

¹¹ Thomas Brading, "First Multi-Domain Task Force Plans to be Centerpiece of Army Modernization," *Army News Service*, 1 February 2021, https://www.army.mil/article/242849/first_multi_domain_task_force_plans_to_be_centerpiece_of_army_modernization.

¹² CJTF-OIR's MDED includes personnel from all five services (USA, USN, USMC, USAF, and USSF) as well as the UK (Army and RAF), Canada (Army), and Australia (Army).

Major Benjamin Murphy (UK) served as a multi-domain effects planner for Combined Joint Task Force - Operation Inherent Resolve (CJTF-OIR). He is currently serving as the UK Ministry of Defence's targeting lead for the Middle East. Major Murphy was commissioned into the Royal Artillery in 2012. His other assignments include serving as an AS90 troop commander on Salisbury Plain; assistant adjutant with the King's Troop Royal Horse Artillery; operations officer for P Battery (The Dragon Troop) Royal Artillery; fire support team commander with C Battery Royal Horse Artillery; and SO3 intelligence, surveillance, reconnaissance with the 12th (United Kingdom) Armoured Infantry Brigade where he deployed on numerous NATO exercises in France and Poland. He also deployed with Standing Joint Force Headquarters as SO2 J5 (Land) and on Operation Rescript as SO2 J3. He then served as brigade executive officer (XO) and lead on integration with 1st Armored Brigade Combat Team, 1st Armored Division in preparation for their deployment as part of Operation Atlantic Resolve.

COL G. Damon Wells served as the director of Multi-Domain Effects for CJTF-OIR in Kuwait and Iraq. He is currently serving as commander of Division Artillery, 4th Infantry Division, Fort Carson, CO. Some of his previous assignments include serving as director of the Commanding General's Planning Group at the Fires Center of Excellence, Fort Sill, OK; commander of 2nd Battalion, 20th Field Artillery, Fort Hood, TX, and Fort Sill, OK; rear detachment commander for 2nd Armored Brigade Combat Team, 1st Cavalry Division, Fort Hood; deputy commander of the 214th Fires Brigade, Fort Sill; security force assistance team leader in Afghanistan; executive officer for 2nd Battalion, 4th Field Artillery (MLRS), 214th Fires Brigade; and combatives and boxing instructor, powerlifting coach, and regimental guidance officer at the U.S. Military Academy at West Point, NY. COL Wells earned a bachelor's degree in psychology and master's degrees in kinesiology and strategic studies.

VIGNETTE: Multi-Domain Effects in Phase IV: Humanitarian and Security Operations in Al-Hawl IDP Camp

In early 2021, Al-Hawl internally displaced persons (IDP) camp was in the midst of a wave of Daesh-inspired assassinations and violence. There were 66 attacks on refugees by Daesh sympathizers, and intelligence reports identified the camp as Daesh's nexus of smuggling and recruitment in northern Syria. The Syrian Democratic Forces highlighted Al-Hawl as a regionally destabilizing influence and requested CJTF-OIR support for their upcoming operation to provide security and humanitarian assistance to the camp's residents. This problem necessitated a multi-domain solution to enhance the partner force's capacity and ensure the enduring defeat of Daesh.

Understanding the environment and setting the operational conditions required contributions across multiple domains. SOF continued mentoring and training SDF commandos in preparation for the operation while air and naval platforms conducted electronic reconnaissance of the camp to understand how and where Daesh were operating. Additionally, space and CEMA assets conducted selective disruption of known Daesh frequencies to enhance the effectiveness of electronic surveillance, which identified Daesh command and control networks within Al-Hawl and links into their wider area smuggling and criminal activities. Liaison with various international and government agencies provided further intelligence, which helped to outline the best way to conduct security and humanitarian assistance in the camp while ensuring the safety of its residents. Concurrently, the Global Coalition highlighted Al-Hawl's deteriorating conditions from Daesh violence while CEMA amplified this in the information environment. The convergence and synergy of these effects provided Coalition and SDF commanders with understanding of the operational environment, which set the conditions for the upcoming operation.

The operation began with a carrier strike group maneuvering into the Eastern Mediterranean to ensure continued support from platforms both afloat and in the air. Additionally, the air component provided extensive intelligence, surveillance, and reconnaissance support to identify Daesh movement within and around Al-Hawl while an AC-130 gunship was on standby throughout in case of Daesh counterattacks against the IDP camp. To deceive Daesh of the focus of the upcoming operation, both conventional forces and SOF conducted a number of diversionary operations elsewhere in Syria. CEMA and space assets used their previous electronic surveillance to selectively disrupt Daesh command and communication networks in and around Al-Hawl, which allowed security and humanitarian assistance without Daesh interference. In conjunction with SDF assistance, Coalition and non-governmental organizational medical capabilities were ready to help any civilians wounded by Daesh. Public affairs teams and journalists recorded the SDF's efforts in Al-Hawl, and then CEMA amplified these stories in the information environment to highlight the SDF operation's positive impact on the camp.

The operation's success derived from convergence and synergy of effects across multiple domains at critical junctures. It was an archetypal Phase IV operation for CJTF-OIR employing multi-domain effects to support joint planning followed by partner force execution.

Transition Planning in Large-Scale Combat Operations

CPT ANDREW BECK
LTC ERIC ALEXANDER

“In LSCO, we must expect our adversaries to have the ability to interdict both air and ground lines of communication.”

— MG Patrick Sargent¹

“Everyone has a plan ‘til they get punched in the mouth.”

— Mike Tyson

The transitional nature of continuous large-scale combat operations (LSCO) proves to be one of the most difficult aspects of command and control on the battlefield. Most of the training accomplished in a given calendar year focuses on the decisive action fight without acknowledging the deterioration of other warfighting functions (WfF) over the course of time. From the squad to brigade levels, units routinely and effectively train for initial contact but struggle to maintain meaningful offensive tempo beyond the joint forced entry. Casualties are sustained, communications fail, poor reporting leads to an increased “fog of war” surrounding realities on the ground, classes of supply expire, and the current operations (CUOPs) fight supersedes any planning efforts beyond the all-consuming present friction.² From the infancy of General Lesley McNair’s Louisiana Maneuvers to the comprehensive learning environment at today’s Joint Readiness Training Center (JRTC) focused on defeating a near-peer, decisive-action threat, the lessons of

LSCO nearly always involve managing transitions to enable as rapid a tempo as possible and maintain the offensive against the enemy.

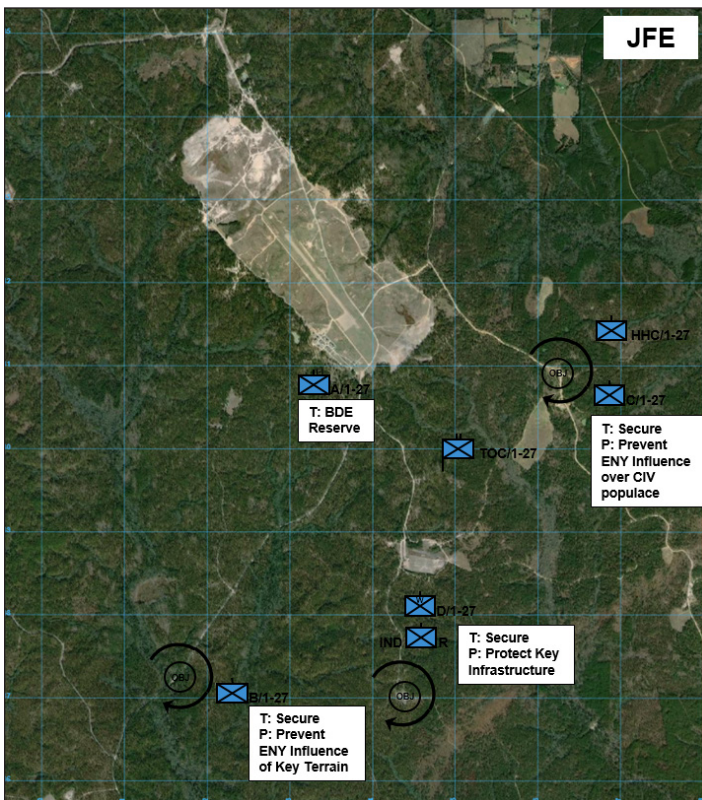
JRTC 21-01 Reflections

During its joint forcible entry at JRTC Rotation 21-01, the 1st Battalion, 27th Infantry Regiment “Wolfhounds” achieved surprise and audacity by conducting a daytime, company air assault rather than the typical air assault during a period of darkness.³ The result was a successful seizure of key terrain and objectives with limited enemy interference, enabling a foothold for the 2nd Infantry Brigade Combat Team (IBCT), 25th Infantry Division to conduct its ground assault entry into the area of operations. As is common in all air assault operations, the reach of communications and sustainment provided significant friction in the synchronization of the ground assault link-up with the forces already retaining key objectives. This resulted in heavy casualties once darkness fell. Once the battalion tactical operations center moved into the area of operations the following morning, the drawn-out CUOPs fight consumed all staff effort as the battalion fought

During Joint Readiness Training Center Rotation 21-01, Soldiers with 1st Battalion, 27th Infantry Regiment conduct a daytime air assault operation at Fort Polk, LA, on 14 October 2020.

Photo courtesy of Joint Readiness Training Center Operations Group





Graphics by CPT Quintin Weekly

Map 1 — Joint Forcible Entry

to secure key routes, seize low-water crossings (LWCs), conduct key leader engagements in population centers, and evacuate casualties back to the brigade Role II under direct-fire contact. Depicting a common operational picture for the commander became an increasingly difficult task and demonstrated the importance of leaders at the company and battalion level fighting off the same map with the same detailed operational graphics overlay.

Within 72 hours of the initial forced entry, the battalion needed to establish a defensive posture oriented west of LWC5 and south to protect the flank of the brigade headquarters and main effort located in vicinity of Dahon Bawang. The battalion did not produce an eight-page, detailed, base operation order with all WfF annexes and conduct a detailed combined arms rehearsal (CAR) with all company commanders as happened prior to the battalion's infiltration. Instead, the battalion published a defense fragmentary order (FRAGO) in a message with fewer than 1,200 characters over Joint Battle Command-Platform (JBC-P) and conducted brief map rehearsals in the face of continuous contact at LWC5. The battalion commander was able to meet with the two most forward company commanders, but the lack of detail and rehears-

als became abundantly clear once the enemy attacked from south to north.

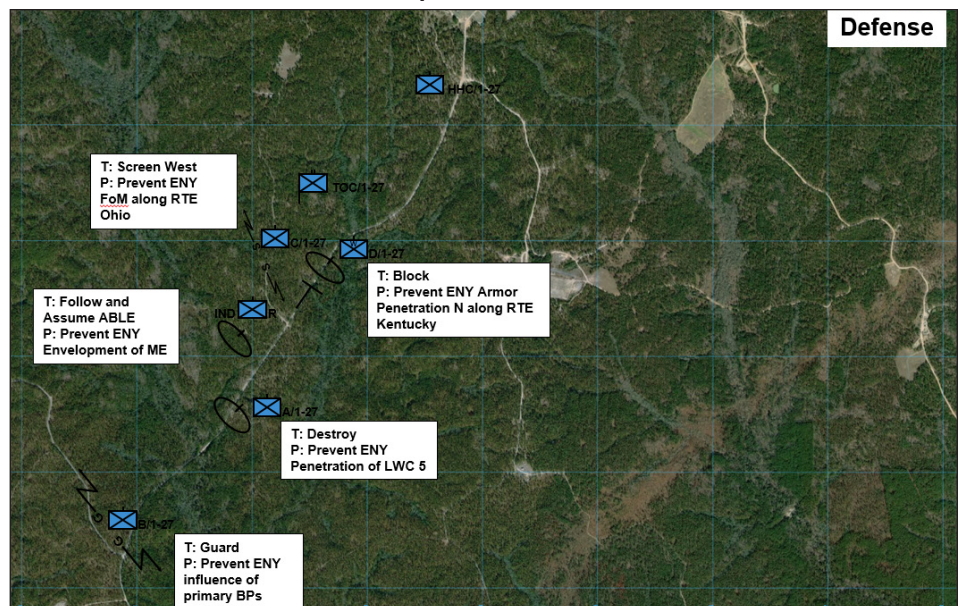
At JRTC 21-01, the world-class opposing force (OPFOR) maintained a significant level of enemy contact and disruption throughout the rotation by skillfully using special purpose forces (SPF) and managing tempo. This disruption consumed the staff and came to bear on the companies during subsequent phases of the operation. The Wolfhounds' main lesson from this rotation was the need to understand and plan for transitions while in contact. We had to resolve three main issues: relocation of subordinate units with part or the entire battalion in contact, continuous medical evacuation (MEDEVAC) while also maneuvering assets towards the forward line of own troops (FLOT), and resupply of the unit as a supplementary tasking before it demands exclusive effort.

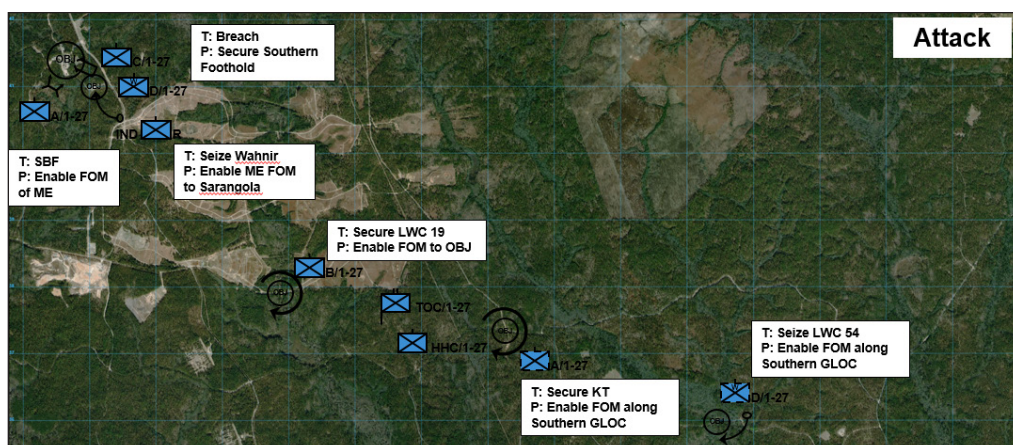
Managing Transitions in Offensive Movement

Among the greatest challenges for a light infantry company is its inability to organically move itself. This can allow for greater flexibility on the battlefield if using aviation assets. However, a rifle company can only move 15 percent of its formation at a time with organic battalion transportation assets. This proves as a significant constraint when rapid, long distance movement is required. Additionally, wheeled transportation creates a large signature, and movement down high-speed avenues of approach using this method proves particularly vulnerable in LSCO. Even during air assaults, redundant pick-up zones and known landing zones allow the enemy to anticipate our future offensive action and disrupt movement operations in depth using indirect fire and SPF attacks.

Throughout JRTC 21-01, the Wolfhounds relied heavily on dismounted movement for all movements under 7 kilometers. Although counterintuitive, it actually proved faster, more reliable, and more secure for the Wolfhounds to move

Map 2 — Defense





Map 3 — Attack

by foot to an objective rather than rely on any method of transportation from either the battalion's forward support company (capable of moving one platoon of dismounts at a time) or brigade assets. The best example came from the final assault when eight Family of Medium Tactical Vehicles (FMTVs) were ambushed along with the battalion tactical command post (TAC) during pick-up operations. Another rifle company destroyed the ambushing force, and the two walked the 6 kilometers to the final objective, able to bypass key obstacle belts emplaced by the enemy that would have left them vulnerable to future ambushes had they continued to move mounted in FMTVs with a heavy weapons' section providing security.

Managing Transitions for MEDEVAC

LSCO MEDEVAC requires makeshift platforms like FMTVs since casualty numbers may rapidly overwhelm the organic assets in the battalion's modified table of organization and equipment (MTOE). The competition for FMTV assets between MEDEVAC and offensive maneuver creates a tension and decision point for the commander. Perhaps out of habits established during the Global War on Terrorism and route clearance, light infantry companies often wait for vehicular assets to arrive for transportation rather than continue dismounted movement to seize key objectives. Some of this comes from the battalion headquarters inaccurately predicting when these assets will become available. Another factor is the heavy load often required of the modern Infantryman. Careful intelligence preparation of the battlefield (IPB) and tactical risk assessment are needed to facilitate dismounted movement.

During the transition from joint forcible entry to the defense in JRTC 21-01, the Wolfhound companies that met the least amount of contact were the ones that moved dismounted to their objectives immediately upon receiving the FRAGO via JBC-P and FM transmission. Essentially, dismounted movement proved more responsive than utilizing "dedicated" brigade assets for the 4-5 kilometer movement. They reached the key terrain before the enemy, and as a result, they could establish a hasty defense to allow large, dig assets freedom of maneuver to the designated engagement

areas. The brigade and battalion dedicated FMTV assets could not support movement forward until ongoing MEDEVAC was complete, preventing a mounted offensive maneuver during these operations.

Beyond allocation of mounted resources, one of the best ways to manage transitions comes from the ability to rapidly treat individuals and not let offensive operations outpace the ability to evacuate casualties back to higher levels of care.

Understanding the battlefield geometry between the forward aid station (FAS), main aid station (MAS), and Role II proves lifesaving. Due to its numerous air assaults beyond the FLOT, 1-27 IN struggled to move casualties with air assets due to competing brigade demands. Our inability to get a ground line of communications open quickly resulted in a high died-of-wounds (DOWs) rate, diminishing the trust between Soldiers and their organization. We learned that MEDEVAC platforms and personnel, such as the FAS and MAS, need to be forward. We cannot afford to be so risk adverse with these platforms and personnel in LSCO.

Often, completely secure ground lines of communication are not available. According to MG Patrick Sargent, "one of the primary challenges to the MEDEVAC force in LSCO will be battlefield access — the ability to get to casualties/patients in order to evacuate them. In LSCO, we must expect our adversaries to have the ability to interdict both air and ground lines of communication."⁴ Additionally, we need to be less reliant on air assets for MEDEVAC. Across the brigade battlefield with multiple companies in contact, there will rarely be assets available for large numbers of air MEDEVACs, and it cannot be our primary planning factor.

Managing Simultaneous Transitions of Operations and Sustainment

Finally, one of the largest inhibitors to managing transitions between phases of the operations involves the resupply of key classes of supply and assets, mostly because these supplies come from a brigade-level prioritization. Particularly in the transition to defensive operations, the movement of Class IV and V require planning and synchronization up to 72 hours prior to their delivery and emplacement. As with all resources, scarcity across the brigade is one of the major decision factors, and prioritization by engagement area is important. This can only be accomplished with detailed, accurate reports from subordinate units to feed running estimates that accurately paint a picture for staff planners and commanders at echelon.⁵

When it comes to the movement of supplies, aviation assets are often underutilized because they are focused on combat operations and air assaults rather than resup-

ply missions.⁶ Some commanders are hesitant to endanger aviation assets for a seemingly nonessential aerial resupply, but this is often due to a lack of proficiency in sling-load training and low cost/low altitude resupply drops.⁷

Additionally, within Appendix H of Army Doctrine Publication (ADP) 3-21.20, *Infantry Battalion*, the onus of resupply responsibility is on the lower unit to reach back to a higher echelon's coordinated area. Anything that requires the higher headquarters to commit its resources to move supplies directly to a unit invariably takes away from its ability to supply other portions of the formation. Subordinate units' inability to move to resupply points, the combat trains command post, or even the brigade support area becomes a large reason that offensive operations have to halt for support-affected units. During air assaults, this inability to reliably resupply units within 12 hours can prove hugely detrimental to any management of transitions or effective future planning.

The Way Ahead: Reassessing Risk, Maneuver, Force Ratios, and IPB

Operational reach consists of momentum, protection, and endurance.⁸ The First Wolfhounds' after action review highlighted the tensions between extended frontages, extended lines of communication, and the successful employment of military capabilities. While this statement is obvious on its face to many, we believe that commanders and staffs should specifically consider and deliberately decide on risk, maneuver, force ratio, and IPB implications of operational reach limitations in LSCO.

When extended frontages and lines of communications become reality, special attention must be paid to the balance between protection of sustainment assets and their critical role in enabling momentum and endurance to infantry formations. Our assessment at the end of rotation 21-01 was that we had gotten it wrong by placing too high a premium on the protection of sustainment formations, systems, and personnel at the expense of effective enabling of maneuver forces. If we fought again, we would commit these assets, specifically logistical and medical support assets, further forward to enable effective support to achieve momentum

and endurance forward. Often, logistical assets remained uncommitted or in contact at the brigade support area as Soldiers and formations at the forward edge of the battle area (FEBA) saw critical supplies dwindle. This reduced the options for commanders from the company through brigade combat team level. Similarly, endurance and especially momentum suffered as casualties accumulated forward and awaited evacuation to the rear. This problem manifested itself in sometimes egregious rates of Soldiers who could have been saved instead dying of wounds. Indirectly, the same events of awaiting resupply or casualty evacuation sapped critical time required to prepare in the defense and degraded rates of advance on the attack.

The battalion failed to achieve maximum potential in its tempo because we did not maximize the capabilities of our formations in the attack. In our assaults, we witnessed that our companies and the battalion twice maintained an attack for approximately 24 hours. It was after about 24 hours that we experienced a dramatic decrease in momentum. Partly, this was our failure as a battalion to sequence fresh companies to the front of the attack to maintain tempo. While we could have helped ourselves, doing so requires a reassessment of the tempo we seek to achieve and several underlying factors. First, we did not realistically evaluate the duration each of our subordinate headquarters could sustain offensive operations. Partly, this requires sober assessments of how much we are bound to roads and trails for the vehicles that carry our supplies. When these ground lines of communication were severed, we did not effectively execute aerial resupply and medical/casualty evacuation. Often, the false



Photo by SGT Thomas Calvert

Infantrymen with 1st Battalion, 27th Infantry Regiment fire at the enemy during JRTC Rotation 21-01.

choice that we perceived was between leading with mounted formations to maximize tempo or pulling vehicles forward with dismounts. All too often, we failed to effectively integrate mounted and dismounted forces. The effective integration of mounted and dismounted forces was essential to maximizing tempo, as anything less resulted in meeting engagements with enemy forces that sapped the battalion's momentum and endurance. Additionally, each of our actions would have been independently more successful had we better tailored Soldiers' loads for each operation. In this regard, we saw failures to achieve detailed, timely planning requirements compounded by ineffective logistical planning and support to enable tailoring of loads by company command teams and below. The unfortunate result for individual Soldiers and our formations was that they went into combat forced to carry everything they might need for any operation or contingency. This is due to not adequately knowing the enemy they would face and not believing they could quickly access additional equipment they may require. We must do better to fight effectively as light infantry.

Taken as a whole, our battalion's experience at JRTC 21-01 was that the tempo and operational reach required exceeded our capacity. This is not to say it was unrealistic; the demands of combat and especially LSCO are unyielding to our capabilities. The frontages, lines of communications, and tasks allocated to our battalion task force successfully stressed the battalion and its subordinate headquarters. If we were to fight the same fight a second time, we would prioritize tasks more rigorously, seek adjustments to tasks that did not directly accomplish the decisive operation, and maintain a more robust reserve to exploit opportunity. This will reduce risk of catastrophe associated with employing economy of force to those missions that are not directly associated to the decisive point. Additionally, we would commit more combat power to a more aggressive security operation when preparing our defense. We also observed that increased simplicity in our planning would have better enabled our subordinate headquarters to better plan and tailor Soldier loads. While there is always attendant risks of not bringing something "just in case," this risk is offset by the increased tempo and likelihood of mission success when properly managed.

Similar to maneuver considerations in the paragraph above, our intelligence preparation of the battlefield must be prioritized and sometimes triaged. Prioritizing decisive operations and the shaping operations most directly related to mission success is essential in the time-constrained environment of LSCO. Too often, we worked to complete all IPB tasks across the entire battalion area of operations instead of completing detailed and refined IPB on the most important and urgent aspects of the battalion's operations. The plan to develop and clear planning priorities must enable the S2 and the battalion staff to meet operational demands and support the companies' planning, preparation, and execution.

Conclusion

Most units inherently know that successful transitions between operations create the conditions for continued

success on the battlefield. Our experience as a force in Iraq and Afghanistan significantly influenced the way we visualize and plan for transitions. Just like in LSCO, the enemy sought to disrupt U.S. operations and deny the initiative to coalition forces. However, our adversaries were rarely able to disrupt operations over long durations or to seize the initiative for significant durations. This led to a focus on "finishing the fight" as the catalyst to transition. Coalition forces could ultimately bring to bear overwhelming technology and force ratios to finish the fight, which became the de facto criteria to initiate transitions.

We must plan for transitions in contact. Finishing the fight is no longer the only criteria for initiating transitions in LSCO. Near-peer adversaries will have the resources and technology to continue very successful disruption operations throughout the bulk of future conflicts. U.S. forces must adapt the conditions required to initiate transitions to reflect the reality of a truly contested battlespace in multiple domains. This has profound implications on planning for unit movement, MEDEVAC, resupply, and all activities conducted during transitions. Failure to plan against realistic conditions will result in a loss of initiative and increased casualties.

Notes

¹ MG Patrick D. Sargent, "Evolving Mass Casualty Combat MEDEVAC," *Combat & Casualty Care* (Summer 2019), accessed from <https://tacticaldefensemedia.com/evolving-mass-casualty-combat-medevac>.

² Brian P. Schoellhorn, "Preventing the Collapse: Fighting Friction After First Contact at the National Training Center," *Military Review* (March-April 2020): 8-9.

³ Army Doctrine Publication 3-90, *Offense and Defense*, July 2019, 3-2.

⁴ Sargent, "Evolving Mass Casualty Combat MEDEVAC."

⁵ Schoellhorn, "Preventing the Collapse," 13-15.

⁶ CPT Ed Richards, "Sustaining in the Decisive Action Fight Using Army Aviation Assets," *Army Sustainment* (7 February 2019).

⁷ LTC Paul Bonano, MAJ Casey Seckendorf, and CSM Ruth Drewitt, "Winning the Future Sustainment Fight," *Army Sustainment* (4 November 2019).

⁸ In Joint Publication 3-0, *Operations*, operational reach is defined as "the distance and duration across which a joint force can successfully employ military capabilities."

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Nunca Camino Solo:

Security Force Assistance Operations in the Competition Phase

MAJ JOHN FORD
LTC MICHAEL R. BERRIMAN
CPT RYAN MUMMA

Security Force Assistance Brigade (SFAB) advisor teams are small units capable of rapid global employment, achieving tactical, operational, and strategic effects while simultaneously generating a financial return on investment. SFABs and subordinate advisor teams are the Army's answer to sustaining international partnerships while preserving brigade combat team (BCT) readiness.

As an analogy, if viewed as a business venture, the SFAB is a startup. According to David Carl's article "Security Startups: Rethinking Security Sector Reform in the Sahel," "Startups initially must be lean, efficient, savvy, and above all, add value to the sector where competition is occurring. The end goal is fostering sustainability so that other advantageous opportunities can be seized upon when presented."¹ While recently supporting operations in the U.S. Southern Command (SOUTHCOM) area of responsibility (AOR), advisor teams working for U.S. Army South (ARSOUTH) created conditions for operational sustainability. In a short four months, they achieved global effects. From a military perspective, advisor teams are the lean, efficient, and savvy answer to prolonged multinational partnerships, achieving tactical, operational, and strategic effects while preserving the combat readiness of BCTs. Advisor teams demonstrate significant value to the sector where competition is occurring.

Theater Entry — Small Unit Employment

In February 2020, 1st SFAB was tasked to provide four advisor teams (comprised of 10-11 personnel) supporting SOUTHCOM's enhanced counter-narcotics operations in Colombia. Four advisor teams and a battalion tactical assault command post (TAC) deployed to Colombia in June 2020 following a two-month delay due to the COVID-19 pandemic. Advisor teams were assigned to partner with Colombian Army joint task forces (JTFs) and the Colombian Army Counter-Narcotics Brigade (BRCNA). They were instructed to assess the operational tempo of Colombian forces and to gain an understanding of how intelligence flows within the commands. The purpose of the assessments was to identify ways operational efficiencies could be generated, allowing for an increase in disruption against cocaine production and trafficking.

Tactical Effects Achieved

Four advisor teams were positioned across the country



of Colombia in areas where the highest amounts of cocaine production occurs. Teams occupied a footprint in remote locations where they immediately established communications, a mission command node, and medical capabilities; they also tied into the force protection plan of their partnered force. Teams led by a captain (or major) and a sergeant first class immediately began the assessments needed to gain situational understanding and generate a plan for advising. The three major successes for the advisor teams were combat power allocation, medical evacuation refinement, and access to updated imagery for planning purposes.

Advisor teams spent time analyzing disposition of platoons across each area of operations (AO) and compared that to historical trends for cocaine eradication. Once complete, the teams were able to advise partner forces through the same analytical process. This enabled partner forces to study their force disposition and look at options for rearranging combat power. Teams advised the operations center on techniques used to track and project combat power, generating information that allowed the commander to gain better situational understanding of his forces and their effects on the battlefield. For the advisor teams, these skill sets allowed them to continue their parallel planning efforts while improving staff-related skills useful across the Army. For our Colombian partners, the advising efforts resulted in a tripling of cocaine eradication outputs on a daily basis while generating combat power for other security activities.

Following the establishment of their footprint, advisor teams executed a medical evacuation rehearsal drill involving the Colombian Army and Air Force. While both services had a plan to evacuate casualties in place, the rehearsals helped improve efficiencies in the processing of paperwork and requests for transportation assets. Advisors advised on the refinement of the medical evacuation plan and executed multiple no-notice drills to ensure proficiency and understanding. These efforts proved successful when a Colombian soldier, wounded by an improvised explosive device (IED) on a coca field, was evacuated to a higher level of care with no issues. Teams were then able to build off the positive rapport to start developing a prolonged field care training plan meant to be taught by Colombian Army doctors to tactical elements.



Photos courtesy of the 1st Security Force Assistance Brigade

Advisor Team 1313 and Colombian Army Soldiers review reports.

The biggest challenges faced by our Colombian partners were the flow of intelligence and receipt of targeting-related products. Specifically, units lacked updated imagery of their AO, making planning efforts difficult. Partner forces typically used outdated Google imagery to execute planning for operations. Advisor teams studied the military intelligence hierarchy and identified assets underutilized by the Colombian military. With this information, advisor teams were able to coach their partners on how to conduct a thorough mission analysis and identify those same available resources. These resources provided access to better imagery required for planning along with a database of previous operational results. Colombian partners increased their capability to plan small unit actions against drug labs while also forecasting larger operations against multiple coca fields. The next step in the process is an assessment of intelligence, surveillance, and reconnaissance (ISR) assets — availability, resource allocation, and operational synchronization.

Operational Effects Achieved

The late addition of the squadron TAC facilitated the establishment of a mission command node centrally located in Bogota. This node allowed advisor teams to focus primarily on advising and not administrative reporting requirements to multiple headquarters elements. Operationally, the TAC was able to gain an understanding of how the Colombian Army allocated coca eradication goals and helicopter blade hours. This was done through interactions with the Jefatura de Operaciones (JEMOP), which is equivalent to the U.S. Army Forces Command. Additionally, the TAC and the BRCNA advisor team viewed the initial stages of developing a new counter-narcotics division.

During the four-month deployment, Colombian Army units primarily focused on eradication. Coca eradication is a relatively new mission set for the Colombian military, only

truly starting within the past two years. Advisor teams assisted with increasing eradication efforts and outputs. Access to the JEMOP allowed the TAC to understand how eradication goals were allocated across the army. The goals for 2020 were equitably distributed across the formations, causing some units to task organize smaller echelons to other formations in order to meet eradication goals. A recommendation was made to simply conduct historical analysis of cocaine yields, adjust eradication goals by unit and area, and allocate forces appropriately for the next calendar year.

On visiting the advisor team outstations, the primary concern for JTF commanders was a lack of helicopter blade hours available to support operations. At one time earlier in their careers, military commanders may have had an abundance of aircraft and blade hours available to conduct operations against threat forces and cocaine production. More recently, those hours

decreased significantly, and unit commanders struggled to maintain an operational tempo they were previously familiar with. Although unable to increase blade hours, the teams advised partner commanders on ways to request additional hours. Primarily using a “return on investment” mentality, advisors encouraged commanders to demonstrate expected outcomes associated with those requested additional blade hours. Although the TAC was not able to see the fruition of these requests, advisor teams reported that JTF commanders are talking in terms of effects to be achieved with the additional resources gained.

Most significant to counter-narcotics operations is the on-going development of a new counter-narcotics division (CONAT) from multiple existing brigades in the Colombian Army. This unit is meant to synchronize and resource counter-narcotics efforts across the country under one commander. Seen initially at the brigade level through the advisor team partnered with the BRCNA, the relationships built will allow engagements with the future commander of the new division. Advisors offer an increase in capability, allowing for targeting specialists and military intelligence advisors to observe and advise the development of the division-level headquarters over the next few months. Upon development of the CONAT, advisor teams will have touchpoints at echelons across the Colombian Army, be able to fully track counter-narcotics efforts, and offer feedback to commanders.

Strategic Effects Achieved

The SFAB achieved great value to the operational environment. The mere presence of advisor teams continued to strengthen relationships with a key partner in South America while simultaneously preserving operational readiness of U.S. Army BCTs. The employment of SFAB advisor teams was a low-cost means of maintaining presence amongst allies while offering advice on operational and tactical improvements.

The original request for forces in Colombia asked for four advisor teams over the course of four months to support U.S. SOUTHCOM's enhanced counter-narcotics operations. There were no guarantees the Colombian military or government would request additional partnership at the conclusion of the mission. Through the rapport developed, effects achieved, and confidence gained, the government and military of Colombia invited additional advising efforts for months to come. Additionally, other South and Central American countries took notice, submitting their own requests for advisor teams. The increase in advisor capabilities across Central and South America allows 1st SFAB to focus advising efforts in both the source and transit zones of narcotics operations.

The construct of the SFAB allows for the preservation of BCT operational readiness. Employment of advisor teams prevents the BCT from deploying a leader-heavy formation forward to support international operations. In the case of the Colombia mission, a BCT would likely have deployed four company headquarters and a battalion headquarters forward to partner with Colombian Army brigadier generals, JTF staffs, and the FORSCOM-equivalent command. The SFAB forces actually employed represent one-third of one battalion, with the remaining two-thirds available for employment elsewhere across the AOR.

Financially, SFABs are a relatively low-cost option for maintaining presence and partnership with allied forces. For example, one team's advising efforts resulted in the partner force re-allocating combat power and developing plans to triple coca field eradication efforts. The partner force eradication efforts averaged around 78 hectares a week. After refinements to combat power array, eradication efforts averaged around 234 hectares. This increase in eradication represents roughly \$4.6M (street value) of cocaine from being distributed globally. Every time the Colombian military eradicates a coca field or destroys a processing lab, it makes a dent in the financial pocket of dealers and cartels. Advisor teams are partnered along the way, advising ways to improve staff processes which increase eradication outputs and achieve national goals.



An NCO with Team 1313 meets with his Colombian Army counterpart.

Conclusion

Operations in Colombia were not without challenges. On arrival to Colombia, advisor teams went through a two-week quarantine period, followed by reception, staging, and onward integration (RSOI) activities. Within weeks of arrival to the outstations, advisor teams were told to cease activities due to a political environment questioning the legality of our presence and pending Colombian congressional approval. Teams constantly competed with negative social media posts, tweets, and articles. They remained focused even after being threatened by known internal threat actors. Advisors consistently demonstrated their professionalism in the face adversity.

In 2017 the Army created SFABs to advise foreign partners and relieve operational stress on BCTs. To achieve this, five active duty brigades and one National Guard brigade were created between 2017 and 2019. Following early deployments to Afghanistan, SFABs became regionally aligned in 2020 across five component commands. Small groups of advisor teams are currently employed globally, with recent experiences in the U.S. Indo-Pacific Command, U.S. Africa Command, and SOUTHCOM. These operations demonstrate the significant value of small advisor teams capable of rapid global employment, achieving tactical, operational and strategic effects while generating military "return on investment."

Notes

¹ David Carl, "Security Startups: Rethinking Security Sector Reform in the Sahel," *The Defense Post* (4 August 2020), accessed from <https://www.thedefensepost.com/2020/08/04/security-startups-sahel/>.

MAJ John Ford currently serves as the executive officer (XO) of the 3rd Squadron, 1st Security Forces Assistance Brigade (SFAB) at Fort Benning, GA. His previous assignments include serving as the XO of the 2nd Stryker Brigade Combat Team (SBCT), 2nd Infantry Division, Joint Base Lewis-McChord (JBLM), WA; XO of the 8th Squadron, 1st Cavalry Regiment, 2-2 SBCT; XO of the 5th Squadron, 15th Cavalry Regiment, 194th Armor Brigade, Fort Benning, GA; commander of Headquarters and Headquarters Troop, 1st Squadron, 32nd Cavalry Regiment, 101st Airborne Division; and commander of Charlie Troop, 1-32 CAV. MAJ Ford earned a bachelor's degree in agricultural mechanics from Stephen F. Austin State University and a master's degree in adult, occupational and continuing education from Kansas State University.

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The Operations Sergeant Major

SFC TRAMAINE R. BASS

As the culture of the Army evolves, NCOs face many challenges that if not addressed will be detrimental to future development of the NCO Corps. Those challenges come in the form of, “How we communicate, use technology, increase resilience, sustain tactical and technical proficiency, and inculcate ourselves and our Soldiers on ethics and values critical to maintaining an ‘Army Strong’ force.”¹ These challenges are overcome by recognizing areas of improvement and adapting to them. This article will attempt to clarify the operations sergeant major’s (OPS SGM’s) role and highlight modern trends identified at the Joint Readiness Training Center (JRTC) under realistic combat training scenarios. It will also include a recommended course of action aimed at preparing the OPS SGM to become a valued force multiplier for the unit.



nodes act as a dynamic group as well as manage guard rosters, create rest plans, and maintain discipline within and around the command nodes. OPS SGMs also work with other staff NCOs to manage logistical requirements, tactical employment, and security procedures.⁷

Current Trends

The following are recent OPS SGM trends observed throughout multiple pre-deployment rotations at JRTC:

1. They don't always fully utilize mission command philosophy.
2. They don't synergize their staffs to their strengths.
3. They need to understand the duties and responsibilities of their staff NCOs during the military decision-making process (MDMP).

Mission Command — OPS SGMs are often competent in several principles of mission command, to include mutual trust with their unit's staff NCOs, as well as understanding mission orders and risk mitigation. Yet throughout several JRTC rotations, some lacked understanding of commander's intent, disciplined initiative, and shared understanding. This can lead to a lack of resources for staff NCOs because there isn't a common understanding of current operations or mission objectives.

Staff Synergy — Often, OPS SGMs do not employ staff NCOs according to their strengths, which ultimately hinders their ability to exercise disciplined initiative within their staff elements.

Understanding Staff Responsibilities — OPS SGMs frequently lack full understanding of their staff's responsibilities and duties. This, coupled with the previously mentioned friction points, usually causes delays in managing staff processes.

Recommendations

The first recommendation to streamline the OPS SGM position is for doctrine to further specify whom the OPS SGM primarily advises to help define responsibilities. This prevents bias towards working solely with the operations section. Also, doctrine should specify that the OPS SGM provide counsel and manage all staff element processes, not just operations.

A second recommendation is to create an OPS SGM Course (OSMC). Although the Sergeants Major Academy (SGM-A) focuses on creating agile and adaptive senior enlisted leaders, it does not fully prepare sergeants major in understanding an organization's operational approach at

The Operations Sergeant Major

Army Techniques Publication (ATP) 6-0.5, *Command Post Organization and Operations*, defines the OPS SGM as a senior NCO who oversees enlisted staff personnel and provides counsel to the operations officer. He or she is responsible for leading, guiding, and training Soldiers, as well as developing unit standard operating procedures and enforcing standards and discipline.²

Principally, the OPS SGM supervises the actions of the staff upon receipt of the executive officer's (XO's) guidance and provides advice to the XO when warranted to drive staff operations towards the mission goal. According to doctrine, the operations sergeant major reports to the operations officer; however, the OPS SGM assists all staff elements and should report to and provide counsel to the XO in all matters regarding the staff.³ The XO leads all staff elements, but the OPS SGM major drives all staff activities under the direction of the commander's intent.⁴

To be successful, the OPS SGM must have a solid understanding of the following principles: NCO common core competencies, leadership, team building, and mission command. Combined and implemented, these concepts allows OPS SGMs to gain an understanding of their staffs' capabilities, efficiently manage personnel, and align talented staff NCOs by areas of expertise under a coordinating, special or personal staff officer.⁵

According to SGM (Retired) Patrick Castin in an issue of *Battle Staff NCO Review*, during tactical operations, the OPS SGM should focus on the tactical command post (TAC), the rear command post, and the tactical operations center (TOC).⁶ The OPS SGM's role is to make these command

the tactical level. This limits the overall impact the OPS SGM has on the organization to achieve the commander's desired end state.⁸

An OSMC could expand upon institutional knowledge gained at the SGM-A, giving tactical-level sergeants major a foundation principled in organizational success. Similar to the Company Commanders and First Sergeants Pre-Command Course, the OSMC would be a requirement prior to assuming the role of operations sergeant major. The course curriculum should include topics on: Army team building, staff synchronization and MDMP integration, command post activities, and organizing combat power. Other topics of consideration are an overview of logistics, the unit schools program, range control operations, and live-fire/situational training exercises.

Conclusion

Properly defining the position of the OPS SGM is vital to the success of this role. By providing sergeants major with a thorough education on their responsibilities and expectations, the U.S. Army can create successful operations sergeants major who positively influence their organizations. This will build strong and cohesive combat ready units prepared for the future fight.

Notes

¹ Training Circular (TC) 7-22.7, *The Noncommissioned Officer Guide*, January 2020, vi, accessed from <https://armypubs.army.mil/>

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Photo by Chuck Cannon

Soldiers with the 2nd Battalion, 4th Security Force Assistance Brigade prepare for a mission in their tactical operations center at the Joint Readiness Training Center, Fort Polk, LA, on 3 June 2020.

A Proposal for Modernizing BCTs for Hybrid Warfare and Great Power Competition

JUSTIN BAUMANN

“A small force which is highly trained in the conflicts of war is more apt to victory: a raw and untrained horde is always exposed to slaughter.”

— Vegetius¹

As the Army moves away from major combat operations in Iraq and Afghanistan and towards Great Power Competition (GPC), it has indicated a desire to switch back to a division-centered Army.² This article advocates an alternative option: maintaining brigade combat teams (BCTs) as units of action and reorganizing them by type, terrain, size, and attaching a Special Forces (SF) battalion in a general support partnership at their home station to form hybrid BCTs.³

It also advocates for an increase of indirect fire systems organic to the BCT. Because of the unique and changing circumstances around modern technology and the ability of near peers and others to use new technology for sophisticated artillery and drone strikes, there exists a need to decentralize these capabilities and authorities to the brigade level.⁴ As will be discussed, BCTs should possess greater organic fires capabilities and other enabler assets to provide overmatch against potential opponents at the tactical and operational levels of war. Experimental doctrinal realignments like this can be tested at Combat Training Centers (CTCs), and data derived from those trials can provide additional insight into maximizing our ground forces' effectiveness in preparation for the next conflict.

Dr. Nicholas Murray explains it like this: “As the U.S. Army moves forward, and out of the wars in Iraq and Afghanistan, we must think about how to deal with the future problems that we might have to face. We also face a similar problem to the French in the 1860s. How do we take the experience of the last years and convert it into lessons for the future? Normally the answer to this is we need to think about the experiences we have had, in order to come up with doctrine so that we can more effectively use our immense combat power. However, what happens if those lessons do not apply to the next conflict?”⁵

Aligning Conventional BCTs with Special Forces Battalions

In their article “Future Special Operations Forces and Conventional Forces Interdependence,” LTC Casey Galligan and CW5 Dennis Castellanos said, “The new normal will deliberately demand persistent interdependence between SOF [special operations forces] and CF [conventional forces] and complementary regional expertise. Although the current episodic models of successful SOF/CF interdependence support retaining the gains made over the last 15 years, a more enduring approach must be implemented as the Army moves forward to secure global threats.”⁶ One of the first ways to accomplish this is to permanently align a conventional brigade with a special forces battalion. This would help with integration, interoperability, and interdependencies (I-3) between conventional and special forces for future conflict readiness, driven by shared training schedules and similar geographic and cultural interests.

The next step in this BCT modernization would be to align BCTs along terrain-based lines of effort. Special Forces groups are currently aligned along Geographic Combatant Command (GCC) lines for cultural purposes. However, because the conventional Army does not have the dedicated cultural training tools SF has, aligning BCTs along similar geographic or terrain-based lines of effort could pay immense dividends in the future as skills in those areas are institutionalized at the BCT level. This will increase survivability for those units which will then be better prepared to conduct operations in those environments. For this article, jungle/forest, arctic/mountain, and urban/subterranean/desert is the alignment chosen, but alternative alignments can be used. According to MAJ Amos Fox, “[F]orce structure assessments in relation to factual environmental threat assessments are needed. This will assist in providing purpose-built forces, instead of continually falling back on historically aligned and built forces.”⁷

This doctrinal realignment would allow SF teams to forward deploy while the conventional units continue to train at home. SF teams would bring back lessons learned and cultural lessons that the conventional units can apply if they are required to move forward. This could keep combatant command (COCOM) requirements down as they must use SF teams to first work “by, with, and through,” but if that fails

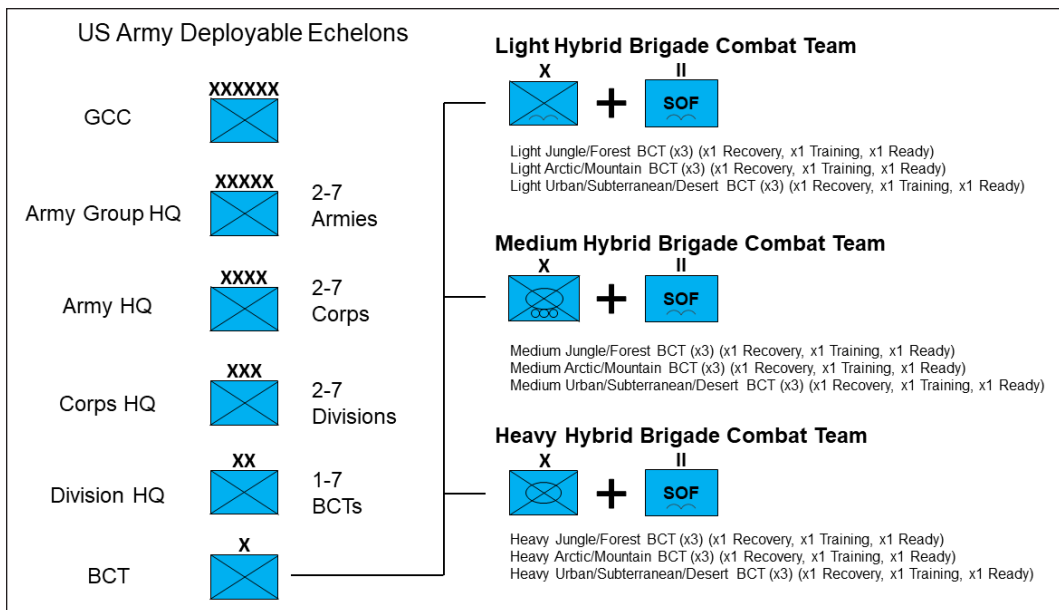


Figure 1 — Aligning Hybrid BCTs by Type, Terrain, and Size

the Army has a regional and terrain-familiar conventional brigade able to deploy if necessary. Figure 1 presents one potential template for a possible BCT realignment by type, terrain, and size.

The Russian Battalion Tactical Group (BTG) and the Reconnaissance-Strike Complex

“In speaking on the efficacy of Russian reconnaissance, military analyst Phillip Karber states, ‘The Russians have broken the code on reconnaissance-strike complex, at least at the tactical and operational level...’”

“The [Russian] BTG [Battalion Tactical Group] is a tactical formation that possesses operational indirect fires and air-defense capability, allowing it to have one foot in the tactical level of war, while the other foot is able to operate in and influence the operational level of war.”

— MAJ Amos Fox⁸⁻⁹

While the United States has been engaged in counterinsurgency (COIN) operations in the Middle East, Russia and others have incorporated modern technology into robust and innovative new ground formations. One of these new developments is the Russian’s design and application of their BTG formations arising from the Gerasimov Doctrine.¹⁰ The U.S. does possess some advantages against the BTG, and the reorganization concept depicted in this article attempts to leverage those strengths while countering the weaknesses. CPT Nicolas J. Fiore describes the advantages the U.S. possesses over the BTG as such:

“Asymmetric calorie-burning strategy explained as sports metaphor: Imagine two teams with fixed rosters competing in a foot race. Team A chose to use a relay team of four runners. Team B is just a single runner who is much faster than any of the runners on Team A. In the first race, Team B wins with a comfortable margin. Then the teams race again. This time B wins as well but feels more

tired than the runners on Team A. The third race ends in a tie, and Team A finally wins the fourth race. In the fifth race, the runner on Team B starts cramping, and Team A comfortably wins every race after that, no matter how many times the race is repeated. Even though the runner on Team B is a superior athlete, his metabolism can’t sustain running four times his competitors’ distance at a pace fast enough to win. Even with some time to rest, eat and hydrate between races, he can’t recover from the repeated exertion fast enough; the lactic acid will still build up in his muscles

and joints. He must either forfeit most races or rotate with other runners on his team. Although the Russian Army has leapfrogged U.S. cyber, EW [electronic warfare] and ADA [air defense artillery] capability, in theater there are few of these systems relative to the number of U.S. platoons that need to be targeted. These systems and their personnel can’t operate 24 hours a day/seven days a week indefinitely, and Russian sustainment can’t rotate, repair, or replace the systems fast enough to keep up with well-sustained U.S. troops maneuvering across a broad front. If a BTG tried to keep up with the 75 platoons in a BCT, they will wear out equipment and burn out key personnel — the equivalent of pulling a hamstring mid-race!”¹¹

Giving Greater and More Responsive Kinetic Strike Capabilities to BCT Commanders

Why do BCT commanders need these assets at the brigade level? Why rocket artillery? Commanders need the ability to do pinpoint kinetic strikes, but air superiority might not always be available (weather, enemy aircraft, enemy ADA, Global Positioning System [GPS] jamming, etc.). This still provides the ability of platoon and company commanders to call in heavy indirect fires even if air superiority is not achieved or not available. This pushes High Mobility Artillery Rocket System (HIMARS) and Multiple Launch Rocket System (MLRS) capabilities to the BCT level for command and control. These units are therefore used at the discretion of the brigade maneuver commander and can provide subordinate units down to the team level with precision fires. This allows deep fires to nest with close operations as a default (heavy mortars/artillery can use high angle firing for use in urban or close-range battles). By attaching rocket artillery to the advancing ground unit, their advance pushes the artillery kill zone radius out further. By this mechanism, ground maneuver success

is reinforced automatically and inherently with follow-up organic artillery operations if the ability to call in higher fires or air power is not available. This enables greater simultaneous operations more than sequential ones, or vice versa operation dependent. Additionally, if theater assets are limited, and frequently they are today, organic indirect fire assets can be used, and those valuable air assets can be used elsewhere.¹²

In a 2016 *Infantry* article, MAJ Fox wrote, “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.”¹³

Preparing for the Return of Urban, Subterranean, Siege, and Trench Warfare

With the rise of megacities and siege warfare recently seen in Mosul and Eastern Ukraine, it is important ground units are given adequate formations that can execute the principles of war in any environment or situation.¹⁴⁻¹⁵ That is the idea behind new formations such as hunter-killer teams (HKTs) and an expanded artillery suite at the BCT level. Increasing the organic indirect fires for the BCT commander gives him greater kinetic options to employ such as high-angle firing or other techniques for urban warfare. These doctrinal templates have been designed with this concept in mind. The HKTs also provide the BCT with greater mobility in and around population centers if Strykers or armored vehicles would result in unnecessary damage to the local infrastructure or if a lower profile presence is required.

Light Hybrid Brigade Combat Team

At their core, airborne Soldiers are light infantry and lose their maneuver advantage after they land. By combining airborne BCTs into “light” versions, the Army can maintain airborne capabilities while refocusing doctrinal tasks and functions. A version of a potential “light” airborne hybrid BCT is presented in Figure 2.

Medium Hybrid Brigade Combat Team

Medium hybrid brigades would maintain the need for fast and armored capabilities the Stryker platform currently provides. As technology or doctrine advances, the types of medium armored personnel carriers (APCs) can be upgraded or adjusted as needed. For instance, new vehicles developed by the Next Generation Combat Vehicle (NGCV)

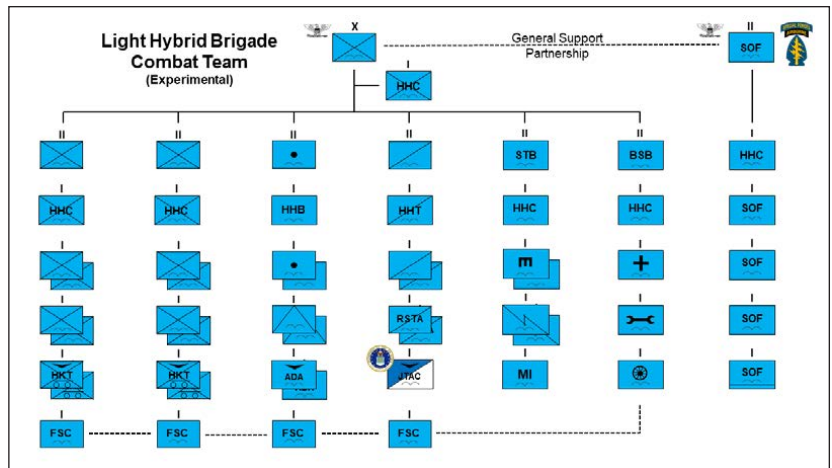


Figure 2 — Proposed Light Hybrid Brigade Combat Team

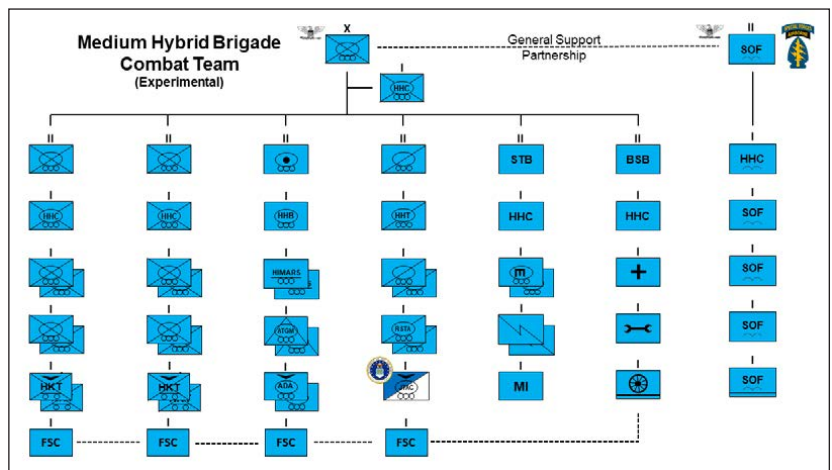


Figure 3 — Proposed Medium Hybrid Brigade Combat Team

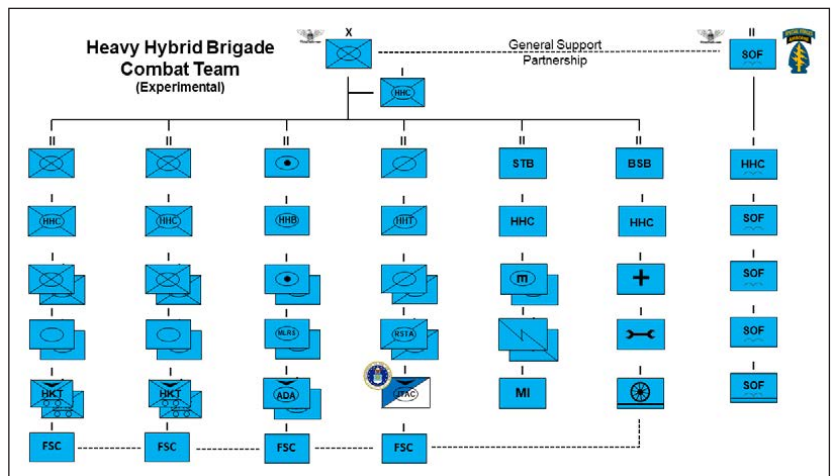


Figure 4 — Proposed Heavy Hybrid Brigade Combat Team

multi-functional team could be incorporated into this doctrinal template.

Heavy Hybrid Brigade Combat Team

The heavy hybrid brigade combat team is the most logistics heavy of the three, requiring additional heavy lift and equipment for a greater array of fire and maneuver resources. The three BCTs can also be seen to relate to their deployment

time by size: Light BCTs can be deployed in hours; medium BCTs require additional transport logistics for the heavier equipment; and heavy BCTs require the most logistics and administrative footprint for continued operations.

Establishing Dedicated Hunter-Killer Teams

CPT Andrew Chack explains some background to the HKT concept in a 2021 issue of *Armor*:

“Conducting zone reconnaissance against an opposing armored force without mobile anti-armor capabilities such as a tank or MGS [Mobile Gun System] will drastically slow the tempo of reconnaissance. Strykers by themselves do not have the firepower and protection to rapidly deploy, engage, and destroy enemy armor. Making contact with enemy armor will require dismounting three kilometers away and waiting for dismounts to maneuver within direct-fire range of a camouflaged, hull-defilade enemy. When the cavalry troop is assigned a tank or MGS platoon, the hunter-killer team is unlocked. Reconnaissance variants, or the hunters, have superior optics and low-target-signature dismount teams that allow for target acquisition at extended range. The hunters conduct target hand-off by sharing this information with the killers or the tanks. The killers are then able to initiate contact and facilitate the destruction of the enemy from a position of relative advantage. Afterward, hunters bound forward and rapidly continue forward movement. This cycle of target acquisition, target destruction, and forward progress occurs rapidly and can completely dislodge the enemy plans if a high enough tempo is achieved. Furthermore, with further repetition, the lethality of this partnership will increase through the rotation.”¹⁶

Giving sniper, anti-tank, and anti-drone capabilities to these hunter-killer units across all three hybrid BCTs will give our commanders better tools with which to plan and execute successful missions if required during GPC, improving the

lethality of hybrid BCTs and closing the kill chain. Providing these units with lighter and faster ground vehicles will raise risk by lacking armor but increase their mobility and speed to enable greater reconnaissance and maneuver.¹⁷ This concept is explored in more detail in Figure 5.

Establishing Weapons and Tactics Infantry Warrant Officers

“Out of every one hundred men, ten shouldn’t even be there, eighty are just targets, nine are the real fighters, and we are lucky to have them, for they make the battle. Ah, but the one, one is a warrior, and he will bring the others back.”

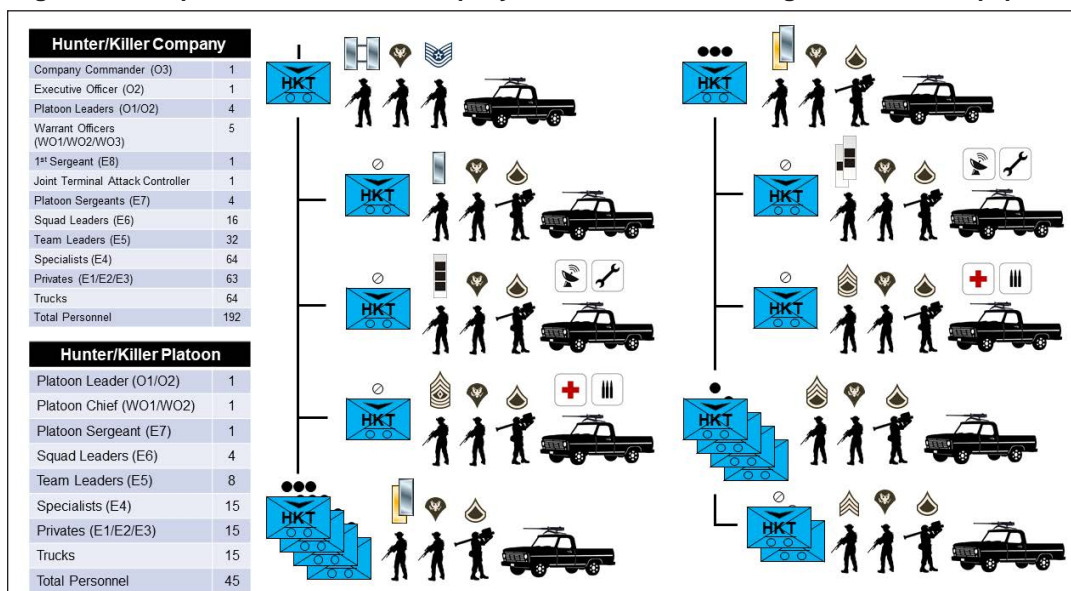
— Heraclitus¹⁸

In order to incorporate HKTs into the force and to professionalize this impact change, I propose the establishment of weapons and tactics infantry warrant officers. Due to the increase in information-dependent technologies, infantry warrant officers can take the load off both the platoon sergeant and platoon leader, allowing them to perform better in saturated information environments. Overtasking at the platoon and company levels is currently a major issue, and this would help resolve it while increasing the institutionalization of combat arms professional knowledge.¹⁹ This is similar to the master gunner warrant officer (MGWO) concept proposed in the Fall 2018 issue of *Armor* by Alex Turkatte. Creating armor and infantry warrants (not maneuver) would help improve the professionalism of both branches. The Armor Branch can follow a similar human resources structure as the proposed infantry warrant officer concept presented in Figure 6.²⁰

One argument against this concept is that it will reduce the collective knowledge and skills of the NCO corps as the best and brightest E7s are initially promoted to infantry warrant officers. However, while this may reduce NCO end strength in the short term as high-performing platoon sergeants are selected and compete for the program, over the long term

the return of these former NCOs to the platoons and companies as warrant officers will better influence, mentor, and educate junior NCOs, providing a positive feedback loop of infantry skills and experiences over the long term. This will be important as infantry weapon technologies develop rapidly or require greater technical proficiency. Tactical units will require dedicated experts on these systems and be able to educate new NCOs and Soldiers in the basics of their operation and application. More information on warrant officer development can be

Figure 5 — Proposed Hunter-Killer Company and Platoon Table of Organization and Equipment



Approx. Years of Service:	6	8	10	12	14	16	18	20+	22	25+
Key Leadership Positions	Driver, Gunner	Team Leader	Squad Leader	Platoon Sergeant	Platoon Chief	Company Chief	Battalion Chief	Brigade Chief		
Military/Civilian Education	WLC	ALC	SLC	IWOC	IWOLC			IMWOLC		
Broadening Opportunities	Staff Operations, Instructor, Recruiter			SFAB, Specialty Schools, O/C/T, Instructor, Division Weapons and Tactics Planner				Researcher, Instructor, Wargame Developer		
Military Training	Airborne, Air Assault, CLC, ARC, Ranger, Battle Staff			Arctic/Jungle/Urban Schools, Ranger, Sapper, Master Gunner, Sniper, RSLC				CGSC, SAMS, AWC, NDU, JAWS		

Figure 6 — Proposed Infantry Warrant Officer Professional Timeline Map

found in *How the Army Runs: A Senior Leader Reference Handbook 2011-2012*.²¹

Information Dominance Company

In the 2020 article “Fire and Maneuver in the Cyberspace Domain,” the authors proposed an Information-Dominance Company (IDC) as a method to increase fire and maneuver lethality of the brigade in the information and cyber domains.²² This concept could be implemented into the standard BCT template across the sizes and provide additional modern capabilities. Figure 7 shows their concept of the IDC.

Conclusion

“With jointness, the concept of how we’ll fight has got murky. It used to be that the service chiefs were the ones developing the plans and strategy to fight the next war. They would figure out what war in their domain would look like, then build the force they needed to dominate in that kind of fight. Now that’s not the case. Now it’s the CCMDs [combatant commands] who are building the plans on how we’ll fight the next war, and the services simply have to figure out how to build a force to meet the numbers and requirements the CCMDs are saying their plans call for. That’s not a well-thought out way to be successful.”

— Anonymous Retired Navy Flag Officer²³

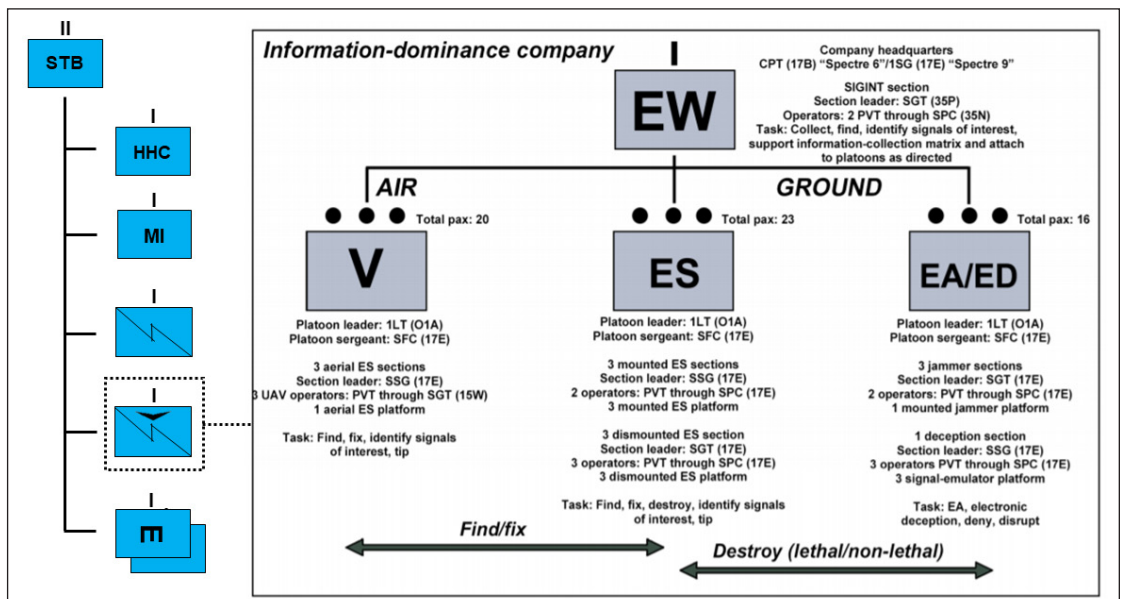
With this quote in mind, it is important we design a force readily available for combatant commanders’ requests,

domain ground combat.

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Figure 7 — Proposed Template for an Information-Dominance Company (Placed in a Hybrid BCT’s Special Troops Battalion as a Second Signal Support Company)



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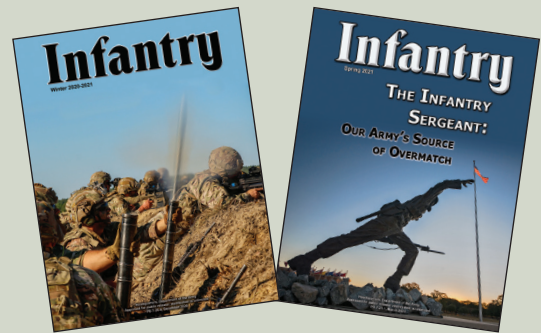
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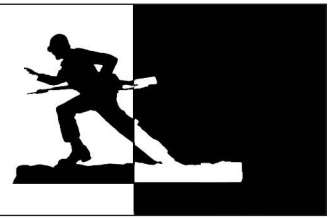
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Training Notes



Stryker Leaders Course Updates POI to Increase SBCT Readiness, Lethality

CPT KEENAN MCINTIRE

After only two decades, a wide range of myths and legends have formed surrounding the Stryker Family of Vehicles. To Soldiers, the Stryker is thought of as anything from a tank with wheels to a wrecking ball intended to breach buildings during urban clearance operations. The Stryker Leaders Course (SLC) aims to increase Stryker brigade combat team (SBCT) lethality through the development of leaders. The course does this by instilling knowledge of the platform, basic skills, and introducing leaders to tactical considerations common to Stryker formations, enabling leaders to make an impact.

The Stryker Family of Vehicles provide extended operational reach and endurance on the battlefield. Strykers enable leaders to rapidly move across battlefields and transport dismount Soldiers closer to the objective than light infantry formations. Multiple Stryker variants also provide organic direct and indirect fire support, mobile communication-relay capabilities, and medical support before, during, and after missions without relying on command posts or

logistics nodes. Additionally, the capabilities and modularity of Strykers enable leaders to disrupt enemy formations to enhance survivability in the defense or while consolidating and reorganizing on the objective.

SLC has recently updated its program of instruction (POI) to develop leaders in fundamental tasks from training and property accountability to the planning and execution of combat operations through the completion of three initiatives.

Initiative 1: Stryker Leaders Course instructor-writers have updated property accountability lessons to align with current Army regulations. Individual Weapons Training Strategy and Gunnery Skills Test classes and tests also provide leaders an introduction to planning and conducting crew training to improve unit readiness and lethality.

Initiative 2: Instructor-writers have developed a new

Strykers travel in a company-level movement formation in unrestricted terrain.

Photo by CPT Keenan McIntire





Photo by SSG Tom Emmanuel

Above, Stryker Leaders Course students engage targets using the Remote Weapon Station-controlled M2 .50 caliber machine gun. At right, students plan Operation Battle Ready in preparation for their operation order brief.

operation order (OPORD) to bridge concepts provided during officer and NCO professional military education to the next level through the use of higher-level concepts. Students are required to incorporate SBCT organic enablers such as the Mobile Gun System, engineers, and scouts. The OPORD student-leaders plan and brief culminates with a tactical exercise without troops. Throughout the exercise, students walk the ground they have planned from the line of departure through consolidation on the objective, stopping at key junctions to discuss the tactics relevant to successful combat operations while considering the capabilities the Stryker platform brings to the fight.

Initiative 3: Student-leaders culminate their training with a familiarization firing range. Students use the skills they have learned throughout the course to identify and engage targets with mounted weapons systems. The firing range provides newly assigned leaders the opportunity to experience the capabilities of their platform in combat operations.

The SLC curriculum and expert instructors put graduates on a path to success in their future assignments. The question remains: Are you willing to come learn what it takes to win? As Chief of Staff of the Army GEN James C. McConville says, “Winning matters.”

CPT Keenan McIntire is currently assigned as a tactics instructor with D Company, 1st Battalion, 29th Infantry Regiment, Fort Benning, GA. He has previously held positions at echelons from platoon to corps. CPT McIntire deployed to Afghanistan as a platoon leader as part of Operation Enduring Freedom in 2014-2015.

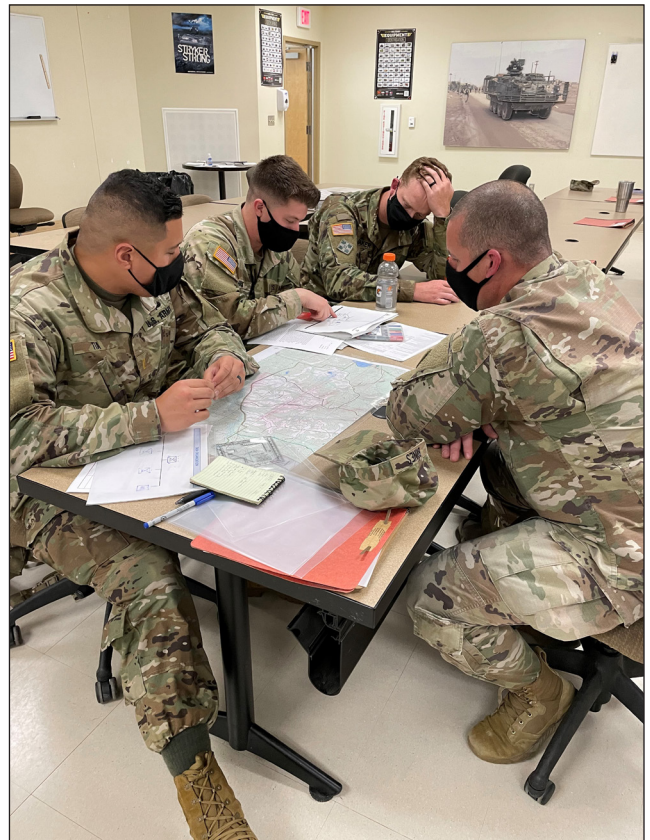


Photo by CPT Keenan McIntire



Photo by CPT Keenan McIntire

A Stryker maneuvers during the course's tactical exercise without troops.

For more information about the Stryker Leaders Course, visit <https://www.benning.army.mil/Armor/316thCav/Stryker-LC/>

Improvements You Can Make Before Your Company's CTC Rotation

MAJ JONATHAN BUCKLAND

In Shakespeare's *Richard III*, the king loses his horse in the middle of the battle and shouts, "A horse, a horse, my kingdom for a horse." At the time, the king needed this small item (a horse) and was willing to trade it for something of great value (his kingdom) to win the battle. This example correlates to conducting military training in that the linchpin to a successful operation can be insignificant at any other time outside of that specific time and space. Finding out that something small is missing at the decisive point of the operation can be the difference between winning and losing.

Training for a Combat Training Center (CTC) rotation at the company level is often primarily dictated at higher echelons to meet specific gates required to execute each rotation: platoon and company live-fire exercises (LFXs), gunnery, and brigade fielding training exercises (FTXs). Often, once a unit has entered this cycle, it is a sprint to the always moving finish line, where completion of one training event signals another's start. The lack of company-guided and executed training transfers to a CTC rotation. Opportunities to gain valuable training and lessons learned are often lost because the company did not have sufficient time to prepare for the minor but critical things that would

have afforded them valuable time during the rotation. This article identifies those things that companies can do at home station before arriving at a CTC. It encompasses 10 areas: sustainment operations, situational awareness, load plans, company rehearsals, reducing signature, recommendations for additional home-station training, signaling, standard operating procedures (SOPs), orders production, and Multiple Integrated Laser Engagement System (MILES) training.

Sustainment Operations

Department of the Army (DA) Form 5988s, Equipment Maintenance and Inspection Worksheet — How does your unit conduct and track field maintenance? Does your company executive officer (XO) print off a stack of DA Form 5988s? A recommendation would be to prepare multiple laminated 5988s with the company's administrative details for each vehicle already printed on the form. When completed, the operator can turn in one laminated 5988 to the company XO. The XO can then use this to fill out his or her own overall company tracker before submitting all 5988s to the forward support company (FSC), dependent

A Soldier assigned to 3rd Battalion, 161st Infantry Regiment, 81st Stryker Brigade Combat Team, performs maintenance on an M2 .50 caliber machine gun before an upcoming mission at Fort Irwin, CA, on 10 March 2021.

Photo by SGT Adeline Witherspoon



Unit:				3rd PLT	SHOOT	MOVE	
PERSONNEL		WEAPONS		SQDs	JBC-P	FM	
ORGANIC	/	.50 CAL	/	C31	S	M	
ATTACHED	/	MK-19	/		JBC-P	FM	
SQDs	/	CLU	/				
LOGSTAT		AT-4		FAULTS:			
CL I DOS O/H	/	M240	/				
RATION CYCLE	/	60MM	/				
CL I (B)	/	120MM	/				
CL III AVG/FUEL O/H		GO VIC SLANT					
CL V O/H	/	CL V NEEDS	/				
50 CAL	/	STRYKERS	/				
40MM LNK	/	ICVs	/				
7.62 LNK	/	MCVs	/				
5.56 LNK	/	LMTVs	/				
5.56 LOOSE	/	HMMWVs	/				
JAV TUBES	/		/				
60MM	/		/				
120MM	/		/				
1st PLT		SHOOT		MOVE			
SQDs	/	JBC-P	/	JAVs	FM	M240s	
C11	S	M	JBC-P	FM	C12	S	
FAULTS:					FAULTS:		
WPN:					WPN:		
LOCATION:					LOCATION:		
C13	S	M	JBC-P	FM		S	
FAULTS:					FAULTS:		
WPN:					WPN:		
LOCATION:					LOCATION:		
2nd PLT		SHOOT		MOVE			
SQDs	/	JBC-P	/	JAVs	FM	M240s	
C21	S	M	JBC-P	FM	C22	S	
FAULTS:					FAULTS:		
WPN:					WPN:		
LOCATION:					LOCATION:		
C23	S	M	JBC-P	FM	C24	S	
FAULTS:					FAULTS:		
WPN:					WPN:		
LOCATION:					LOCATION:		
CONTACT TRUCK				G3112		M	
						FM	
				FAULTS:			
				TRLR:			
				TRLR:			
				LOCATION:			
				NOTES:			

Figure 1 — Example of a Company XO's Laminated Vehicle Status Report

on your unit's procedures (see Figure 1). Multiple laminated 5988 forms per vehicle will make supporting the constant maintenance cycle easier and enhance continuous tracking for all the company's vehicles.

Platoon Sustainment — Companies should laminate multiple platoon sustainment request forms. A recommendation is for one to be maintained at the platoon sergeant (PSG) level and one that gets turned into the company XO and supply sergeant. The XO can then keep a company sustainment report to turn directly into the battalion S4 or XO. This action will prove to be a better organizational process than PSGs turning in scraps of paper or providing verbal status reports to the XO.

Pre-Formatted Joint Battle Command-Platform (JBC-P) Messages — Company XOs expend precious time filling in the administrative information when sending JBC-P messages. Instead, take the time before beginning a CTC rotation to prefill out these messages with recipients and class; the messages can then be populated with actual data of supplies when needed.

Situational Awareness

20-Minute Boards — Imagine that you are a rifleman or a tank driver. Some questions you may think about when trying to understand the overall company/battalion/brigade operation include: What you are fighting for and how do you level the common operating picture throughout your company? A solution is to use 20-minute boards — a concept utilized within the airborne community. At the 20-minute warning from exiting the aircraft, small clipboards are passed through the aircraft with operational graphics, re-stated mission, and command and signal information used as a quick refresher

for Paratroopers before jumping into the fight. This same concept can prove useful in the mechanized community for dismounts sitting in the back of an M2 Bradley Fighting Vehicle or Stryker Infantry Carrier Vehicle. Soldiers might be sitting in the back for 30 minutes to several hours after the ramp goes up so a quick refresher of the current situation can ensure a clear operating picture across the formation.

FM Rehearsal Script — Companies often have very little time to disseminate information to the lowest level or conduct effective rehearsals. Companies are often rushed to a REDCON-1 status and then wait several hours for operations to start. An FM rehearsal script can maximize the use of the limited available time. This script allows quick dissemination of information and then lets subordinates talk through their actions throughout the operation. It also ensures that the unit stays organized and limits long transmissions on the company net and broadcasting signal. This rehearsal enables

dismounts in the vehicles to listen to the talk and obtain situational awareness and a common operating picture over the company channel.

Load Plans

Load plans are critical, especially when conducting mounted operations. Generally, while maneuvering, it is not the rollover that causes the most significant damage. It is the damage inflicted by unsecured items due to a failed load plan. Units must conduct a deliberate process when developing a known company load plan.

Mounted Operations — Company and platoon leadership need to develop a plan for how and where extra gear, tuff boxes, and extra sustainment items will be stored. There must be a standardized process for the location of sustainment and basic issue items (BII) and how these items are adequately secured within the vehicles across the company. Having standard locations across the company for specific items cuts down the time to search for needed equipment. Additionally, before deployment, take the needed time to organize the placement of supplies and items within the company trains. This effort will allow for more rapid and easier access to necessary items when they are needed.

Dismounted Operations — Identify those aid and litter, enemy prisoner of war (EPW), and Javelin (JAV) teams now! Ensure that they can properly carry all necessary equipment. This pre-operational planning is critical when it comes to the JAV teams. Unless doing a financial liability investigation of property loss (FLIPL) on the command launch unit (CLU) when you return to home station is preferred, decide ahead of time how to transport it effectively while mitigating loss. The proper way is not merely to attach it to the missile

and have the youngest Soldier carry it for the entire force-on-force period.

Company Rehearsals

Scripts — Establish a script for company rehearsals and ensure that you include all forces and enablers. The script will enable you to stay on topic and not turn the rehearsal into a two-hour conference. Additionally, ensure that all leaders and Soldiers know who is required to participate in the rehearsal. Have a plan for how security will be conducted when leaders meet and a plan if platoons are pulled off the line to conduct their internal rehearsals. Planning for and establishing these procedures before your rotation will provide you additional time to conduct your rehearsals and enhance preparation for the impending operation.

Terrain Model Kits — Have a good company terrain model kit with all the necessary items that allows for a detailed terrain model to be built promptly and properly. Having the prepared kit will prevent the need to run around at the last minute to put together a model with engineer tape and rocks. A pre-built kit will allow the company to add this to the priorities of work as soon as it occupies its assembly area and will substantially aid the commander in providing a detailed operation order.

Reducing Overall Signature

Camouflage Netting — Companies should not begin thinking about camouflage netting placement at the intermediate staging base (ISB). They should do so at home station before deploying to a CTC. Proper mounting and placement of the netting are vital to ensuring that the nets can be safely and effectively stored when moving. Placement will prevent the nets from getting caught in wheels or tracks while ensuring successful camouflaging of vehicles. When mounting camo netting, commanders also need to consider openings for MILES sensor gear to ensure that the net is not blocking their ability to read opposing force (OPFOR) lasers.

Figure 2 — Example Company Terrain Model



Photos by MAJ Jonathan Buckland

A company commander meets with his platoon leaders in the back of his M2 Bradley Infantry Fighting Vehicle.

Company Headquarters (HQ) Location — When establishing a company HQ location, one of the best practices observed during National Training Center rotations involved having the XO's and 1SG's vehicles park with rear ends facing each other with connected camo netting erected between the two. The configuration allowed for some concealment of the vehicles and a shaded area for meeting with company leadership. The commander's vehicle can easily link into this configuration while still providing it the ability to move more freely to higher headquarters meetings.

Recommendations for Additional Home-Station Training

Maneuver training does not need to occur in vehicles; in fact, that is the "running phase." Companies can start at the "crawl phase" in the motor pool or an open field at the team and platoon level — with walk-throughs to practice crew movement formations and teach different formation changes. Doing these slow and methodical practice sessions will ensure, for example, that the PSG's wingman always knows that he/she is going to the right or left or the gunner learns how to pick up a specific sector of fire immediately. This training will help units to react immediately upon contact and not waste time giving orders. Focusing on target identification (distance, direction, and description) and more rapid target engagements will ultimately increase lethality.

Recovery operations training is best conducted before an actual recovery takes place. During this process, you

can ensure that vehicles have the proper BII to prevent stalling operations during engagements. Training on self-recovery once a week, perhaps during motor pool maintenance, will ensure that everyone learns the procedures before execution. This basic but important training will help keep more mobility platforms in the fight during your operations. Always ensure that you have the correctly rated tow straps or tow bars for your company vehicles and remember to ensure that heat shields are present for self-recovery of tanks.

Engineers — Training with your engineers is essential to success when conducting a breach. Do not meet your engineers for the first time at the combined arms breach rehearsal. Reach out to your counterparts at home station to conduct training together to build the team. This team building can be as easy as conducting physical training (PT) once or twice a month together, or it can be more complex, for example, by having the units conduct suppress, obscure, secure, reduce, and assault (SOSRA) drills using an open field. The SOSRA training will allow the maneuver Soldiers to see what the breach process entails and what the engineers need to complete a successful breach. This training will prevent problems like running on the wrong side of the handrail and getting caught in the concertina wire.

Routines — Good units train routine things routinely. The most sacred time in the Army should be PT time. Whatever happens to the weekly or daily schedules, Soldiers know that at least from 0630-0800, daily PT is going to take place. Use the last 10-15 minutes of PT during the cool-down period to conduct specific training throughout the week. I utilized a model that focused on separate areas each day of the week (Monday: weapons; Tuesday: medical; Wednesday: communications; Thursday: chemical, biological, radiological, and nuclear [CBRN] defense; and Friday: tactics). The training was always something very specific and functioned as a quick refresher course. For example, you can cover how to utilize a Joint Chemical Agent Detector (JCAD) or disassemble and assemble an M240 machine gun. The block of instruction also allows junior leaders to teach and demonstrate their future leadership potential to their superiors.

Signaling and Marking

Vehicle Markings — Vehicle markings are extremely important during a CTC rotation for both daytime and nighttime operations. Most units develop a quick solution after the first night movement or fratricide incident and that is too late. Some successful companies have used cut up VS-17 panels on antennas, where the left or right dictates the platoon and the other side represents the position within the platoon. Others, not as effectively, have used 100 mph tape on the side, which usually lasts about a day or two in the dust or rain. Develop a system before deployment that is durable and understood within your formation and your battalion and brigade.

Degraded Communications — In a degraded communications environment, it is critical to know how you will communicate between vehicles without FM communications. Most units already go through a primary, alternate, contingency, and emergency (PACE) plan while dismounted — FM, whistle, star cluster, runner, etc. — but what are the actions when mounted? Simple solutions might include reaching back into history and pulling out those old flag command signals or ensuring that your formation is fluent in hand-and-arms signals.

Dismounted Markings — Dismounted markings are vital at the breach and in an urban environment. Colors may vary across the Army, but chemlights are used to mark the breach and communicate that a room is clear. Foxtails (VS-17 panel tied to a rock) might indicate the shifting and lifting of fires or mark a friendly unit's frontline trace when hanging outside of the blackside (facing friendly forces) of a building. Some additional questions to consider for dismounted markings include: Does your unit have a "Moses pole" and marking system for the frontline trace of friendly units clearing a trench, or will you result to using an antenna at the last minute, and how and where do the engineers mark the handrail of the breach? The key is not developing these signals in a vacuum. They should be codified in the brigade/battalion tactical SOP (TACSOP). If your unit does not have a TACSOP, be proactive and start a conversation with your command sergeant major and develop one.

Company SOPs

Assembly Areas — Does your company already have an SOP to occupy an assembly area (AA), or are you going to have a 10-minute conversation on the company net about how you want to emplace? Establish the SOPs for occupy-



Soldiers stand by after clearing a room. Note the foxtail at the top of the door.



A Soldier occupies his Javelin battle position at the National Training Center, Fort Irwin.

ing AAs both dismounted and mounted before your rotation. It can be as simple as this: The lead element always has the 9 to 3 by way of 12; the second element has the 3 to 6 by way of 6; and the third element has the 6 to 9 by way of 6; and company trains will locate just above the 6. Whatever you decide it to be, establish it and rehearse while at home station. Do not try to do it for the first time at 0300 in the rain while in the middle of a force-on-force engagement.

Priorities of Work — Are the priorities of work known throughout the formation, or do leaders have to publish them every time they occupy the AA? Publish beforehand so that drivers know to get out and immediately conduct preventive maintenance checks and services (PMCS) — checking track tension and POLs (petroleum, oils, and lubricants); gunners know to bore sight; dismounted teams and JAV teams know to build fighting positions, etc. Plan for the safety factors as well, especially when locating sleeping areas. By doing this, Soldiers will already know where to sleep, and if drivers must move, they will know where those areas are.

Pre-combat Checks (PCCs) and Pre-combat Inspections (PCIs) — PCCs/PCIs are terms that are thrown around throughout the Army without specific guidance as to what they are or when they are conducted. Ensuring that subordinates and junior leaders understand the difference

between PCCs and PCIs and what they are looking at is key to ensuring that Soldiers have the right equipment for their operation. PCIs are actually that — an inspection, not an interview. This inspection is the opportunity for a first-line supervisor to put hands on all their Soldiers' equipment and verify they are 100-percent ready for the mission. PCCs are the ability for leaders to conduct spot checks within their formations to verify that inspections have been conducted. A standardized checklist needs to be published at the company level to guarantee that all leaders know to confirm the same equipment. This way, if a squad is attached to another platoon, the leaders have the same expectations.

Orders Production

How will you develop a company operation order (OPORD) at 0200 in the morning? Is your XO going to brief sustainment operations? Is your 1SG going to brief the medical portion? Who is present at the company OPORD? These are all questions you should be asking now, before deployment, to ensure you are prepared to give a detailed and timely OPORD. The OPORD should provide enough information so that everyone knows their mission and responsibilities while ensuring that your subordinates have sufficient

time to issue their orders. There are many templates that you can use; the key is finding the one that works best for you. I have seen a commander use his computer to type up orders and use downloaded maps to make graphics. It was a great technique until he ran out of paper and ink. An option is using carbon copy paper to write the order and issue the copies to your subordinates. Another practice is to have laminated order templates that every leader can fill out while the OPORD occurs (see Figure 3). Whatever method you choose to utilize, practice it before your rotation in the operational environment.

Operational Graphics — Once you have published your order, how are you publishing operational graphics? Do you have your overlays available from higher for your subordinate leaders to copy? Operations graphics allow units to communicate clearly and quickly in a complex operational environment. Battle boards or hard backings that maps mount to with clear overlays that show obstacles, targets, target reference points, battle positions, or adjacent unit locations are common in the mounted community. These boards are just as easy to make within the light community — compact enough to fit in a rucksack or cargo pocket. Building these boards before an operation will ensure that leaders can copy graphics with the expectation to use them during a rotation.

WARNO _____ TO	
OPORD _____	
Initial Task Org: _____	
Effective: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
1. SITUATION - General Enemy Overview:	AO: North South East West
Who the CO/TM is fighting:	AI: North South East West
BCT Mission:	BCT CDR Intent:
BN/TF Mission:	BN/TF CDR Intent:
2. MISSION - Upcoming Task and Purpose or Type of Operation/General Location:	
3. EXECUTION:	
Movement Instructions/Movement to Initiate:	Recon Tasks/Recon to Initiate:
Our Current Location: _____	1.
Our Next Location: _____	2.
Objective Location: _____	3.
Recon Team:	Information Requirements
	1.
	2.
	3.
	4.

Figure 3 — Example of a Company Laminated Warning Order

MILES Training

Every rotational unit that comes through a CTC thinks that the OPFOR cheats somehow with their MILES gear. The reality is that the OPFOR is lethal in the MILES environment because those Soldiers regularly use and train on the equipment. You should not be using your MILES gear for the first time at the ISB or the rotational unit bivouac area (RUBA). Draw the equipment at your home station and incorporate it into your training. Become proficient with it, and lethality against an opposing force will follow suit. Do not just draw MILES for your individual weapons. Train with MILES on your Stingers and Javelins so that you can be lethal against red air and armored formations as well. The same home-station training should be conducted for mounted MILES — boresight and zero both your M1 Abrams or M2 Bradley. You can conduct lethality checks on your lasers all day in the box, but if you have not bore-sighted or zeroed out to the range that you think

you are going to engage the enemy, then it is a waste of time. These techniques will tip the scales in your favor for a more successful rotation. Rotations are infinitely more fun when you win.

Final Thoughts

This article is not intended to provide company-level leadership with all the information needed to prepare for a CTC rotation. It is meant to start a dialogue within the company leadership to begin to think through their SOPs and determine areas in which the company is lacking. If these areas are addressed before deployment to the CTC, it will allow the company and its observer-coach-trainers (OCTs) the opportunity to focus on other areas that need improvement during your rotation.

Enjoy your time during your rotation with your company. Always ask for feedback from your OCTs. You are there to make your team better and to do that you need to avoid wasting precious time learning things you could have thought about, and practiced, before deployment to your CTC rotation. If you ever get the opportunity to serve at a CTC, take it. It is one of the most rewarding and professionally developing assignments in our Army!

MAJ Jonathan Buckland, an Infantry officer, is currently serving as a division planner at the 3rd Infantry Division, Fort Stewart, GA. He served as a rifle and scout platoon leader in the 4th Infantry Brigade Combat Team, 1st Infantry Division at Fort Riley, KS. He also commanded both a rifle and headquarters company in the 2nd Brigade Combat Team, 82nd Airborne Division at Fort Bragg, NC. MAJ Buckland's most recent assignment was as an observer-coach-trainer on the Tarantula Team at the National Training Center, Fort Irwin, CA.



A company commander conducts an operation order brief with company leadership.

Functional Fitness: *The Case for the Army*

MAJ CHRISTOPHER J. MATTOS

In 2018 I had a rare opportunity to attend a functional fitness coaching certification course in Boston while serving as a tactical officer at the U.S. Military Academy Preparatory School in West Point, NY. After years of strict weightlifting and good old-fashioned Army physical training (PT), I was naturally skeptical and a vocal antagonist against the functional fitness movement. I would often cite unfounded evidence in order to attempt to disprove the functional fitness phenomenon, really only to justify my own fitness programming, which often included hours of isometric exercises focused on single muscle groups. With some peer pressure, I decided to jump on the opportunity and take the trip to Boston to give it a chance.

More than two years later, I have remained committed to functional fitness, in large part because of the amazing support community I found as well as the drastic improvements in my health. Old injuries and unneeded weight disappeared. To my surprise, my strength improved; I gained improved range of motion and mobility, and completely revolutionized my cardiovascular endurance. Functional fitness changed my life, work performance, fitness, and overall well-being for the better. I am confident that had I stayed on the course I was on, I would have ended up nearly immobile at an early age, given the wear and tear I was self-inflicting on top of the stress my job as an Infantryman was already having on my body. I am now a vocal supporter of the sport and work to share it with my colleagues as often as possible. This article aims to make the case for an increased presence of functional fitness in the Army in order to help change our fitness culture and improve the mental, physical, and emotional resilience of our formations by correlating the nuances of functional fitness to the everyday demands of Army life and combat.

As the Army adopts the new Army Combat Fitness Test (ACFT), which is inherently functional in nature, our physical readiness training (PRT) strategies have begun to shift. Although the average Army formation can still be found doing the same old things like long-distance running, ruck marching, and push-ups and sit-ups, there has certainly been a shift in our culture as units begin to try to prepare their Soldiers for the functional nature of the ACFT. However, what I still find is that the average unit has a very myopic view of fitness. They often focus on a singular low or moderate intensity activity, usually with very little attention given to warming up, mobility, stability, or cooling down. As we think about the rigors of combat, however, it is fair to say that in

battle Soldiers are required to move rapidly, conduct a high-intensity activity, and then repeat this process. Those activities often require agility, speed, balance, strength, mobility, power, skill, and even a certain degree of gymnastics ability, like climbing a wall or jumping through a window for example. Further, the daily rigors of garrison training require a great deal of resilience, mental fortitude, endurance, confidence, and adherence to high standards. Functional fitness, as a comprehensive program, provides Soldiers with the tools to be successful in both contexts.

Functional fitness is a microcosm for Army life in several ways, to include:

1. Balance of multiple skills to be ready for the unknown
2. High standards and accountability
3. Planning and programming



Photo by LTC Aaron Teller

Soldiers flip a tire during a team-building physical fitness training session on 11 September 2020 at Fort Riley, KS.

4. Preparation and recovery
5. Mental toughness and resilience
6. Competition and winning
7. Community support and mentorship
8. Professionalization and certification of leaders
9. Self-discipline and self-development

The most salient of these comparisons is the multi-modal nature of functional fitness. Readiness in the Army is essentially the ability of a unit or individual to be ready to, with little notice, tackle any mission in all conditions. Units must balance all of their assigned skills, like marksmanship, land navigation, offense, defense, and urban operations, to name only a few. Too much focus on one area decreases readiness in others. We prefer our combat arms units to be trained on a variety of skillsets rather than be experts on any singular skill. Functional fitness is the same. In this model, athletes focus on balancing proficiency across all domains (power, agility, balance, strength, etc.). Too much focus in one area lets you atrophy in other areas. Athletes continuously manage this tension, trying to keep as many “plates” spinning as possible without letting any drop. The best functional fitness athletes are well trained across a diverse portfolio of activities, in contrast to marathon runners or body builders who are only highly skilled in one domain. This “ready-for-anything” approach allows athletes to tackle any fitness challenge with a high degree of ability. They may not beat the marathon runner in a race or the body builder in a bench press competition, but holistically they are more fit across all areas. This is exactly what we ask our Soldiers to be: ready for any unknown enemy or battlefield, at any time.

Functional fitness, like the Army, relies firmly on standards and accountability. Athletes learn early on that quality is better than quantity. Coaches and teammates hold each other accountable, and individual athletes are expected to remain disciplined in their form and technique. Only properly performed repetitions count during workouts, and technique is by far the most important aspect of training. As a community, poor form is not tolerated, and perfect execution of performance standards is highly coveted. This culture of high standards and accountability is exactly what we aim to achieve in our Army formations.

Functional fitness, like training management in the Army, requires detailed planning and programming in order to ensure athletes are actively working to meet certain goals as part of a larger long-term plan. Each workout has an intent and goal. Athletes begin the workout knowing what they are aiming to achieve and which skillsets they are aiming to improve upon. These short-term goals are nested with longer term goals to reach a desired state of fitness. This should sound familiar, as it is a direct representation



Photo by SSG Armando R. Limon

A Soldier with the 174th Infantry Brigade conducts the deadlift event of the Army Combat Fitness Test on 27 May 2021 at Joint Base McGuire-Dix-Lakehurst, NJ.

of how we think about training in the Army. Good programs are “varied not random,” meaning they offer a large variety of skills training to maintain balance and are actually part of a comprehensive direction that is uniquely tailored to the individual needs of each athlete.

As we focus in on a “METCON” (metabolic conditioning), or WOD (workout of the day) as it is commonly referred to in the functional fitness community, we can also learn some strong lessons for Army Soldiers. METCONs are generally high intensity, requiring athletes to adequately warm up, mobilize their joints, perform short-duration exercises at maximum effort, and then cool down and stretch, often with additional strength, skills, or midline conditioning baked in before or after. We similarly ensure our Soldiers conduct pre-combat inspections (PCIs), reconnaissance, and rehearsals prior to training, and we conduct after action reviews (AARs) and recovery after training. Like Army operations, preparatory activities and recovery activities are often just as, if not more, important than the event itself. Nutrition, rest, stretching, recovery, and mobility are just as important to good functional fitness performance as PCIs, rehearsals, AARs, maintenance, and recovery are to Army training and operations.

Functional fitness workouts also require athletes to push themselves well beyond their comfort zone. They train athletes to endure great physical and mental stress while still maintaining prescriptive standards. Every workout shines a bright light on the unique strengths and weaknesses of each athlete, forcing them to constantly evaluate where they can improve. These workouts are often designed to stretch an athlete physically, mentally, and emotionally, and because of the large variety of skill sets, nearly every athlete finds a weakness exposed. This dynamic is directly correlated to the general nature of Army life and certainly to combat. The

nature of the Army profession is inherently risky, dangerous, uncomfortable, and physically, mentally, and emotionally taxing, requiring a great deal of fortitude and resilience. Functional fitness reinforces the resilience required to persist in the face of these adverse conditions.

Senior Army leadership have often used the slogan “Winning Matters” to capture the culture and mindset that we aim to instill in all of our Soldiers. Similarly, functional fitness rests firmly on a foundation of competition. It is widely understood that although it is a community sport, all athletes get better by competing with each other and the community as a whole. For those who belong to a gym, every workout is designed to force athletes to compete against each other, with scores posted and winners declared. Athletes challenge each other, but they also support each other when they struggle or fail, encourage each other when they are struggling, and provide positive feedback when they complete a workout. For individual athletes, countless digital applications exist to allow athletes to compare scores to their peers. Functional fitness is a great venue to continue to reinforce a winning attitude and competitive nature in our Soldiers.

Like the Army, functional fitness is a community of practice — a collective team focused on a common pursuit. As the Army highly values leader development through teaching, coaching, and mentoring, so does the functional fitness community. Very few athletes can go it alone. At some point in all athletes’ journey, they require coaching and certainly mentorship from more experienced athletes to learn new skills or to just generally navigate the arduous nature of the sport. Even the best athletes in the world have coaches, if not teams, dedicated to their development and success. The Army can learn from this dynamic and just how heavily the functional fitness community invests in supporting their athletes.

The functional fitness community invests equally as heavily in the certification of its coaches and gym owners to ensure the professionalization of the sport. Just as the Army requires professional military education for all of its leaders, functional fitness leaders must be certified and tested by a standardized assessment program in order to perform their duties. Only certified instructors can lead workouts, judge competitions, or coach individual athletes. Coaches are offered four levels of certification as well as additional courses designed to increase professional knowledge on unique skill.

Functional fitness requires a great deal of self-discipline, sacrifice, and investment in self-development. The taxing nature of the sport dissuades many from staying the course, especially in the beginning of the journey when the learning curve is the steepest. The sport never gets easier, as the metaphorical goal post continuously moves as you get better and better. No matter how good you get, there is always more to work on. This requires immense personal discipline to persevere and keep the end game in mind. Many athletes falter, quit, or take short cuts to decrease this burden. Only those who remain dedicated and steadfast in the midst of the natural adversity of the sport see the inevitable growth that comes with sticking it out. Like in Army training, to really

Even the best athletes in the world have coaches, if not teams, dedicated to their development and success. The Army can learn from this dynamic and just how heavily the functional fitness community invests in supporting their athletes.

succeed in this sport, there is a certain degree of investment in personal development that is required. Athletes who are serious about doing well typically invest in equipment, coaching, memberships, and self-education through reading materials or videos. There is also a certain time and energy commitment to succeed. Typically, a minimum of three days on and one day off, each day with at least one hour of activity, is required to see substantial progress, often at the cost of other daily pursuits. The same type of commitment is required of Army Soldiers and leaders to grow in their military development.

Conclusion

If Army leaders are serious about changing the fitness culture of their formations, they would be well served by considering the benefits of functional fitness. Further, they would also benefit from adopting a long-term view of sending people away from their units to developmental opportunities like getting certified in functional fitness coaching. The cost benefit is undoubtedly weighted in favor of the benefits. For a relatively low time and financial cost, my short trip to Boston had a lasting impact on my personal fitness, the fitness of those who I have had the pleasure of sharing the sport with (to include my family), and hopefully with the Soldiers I will lead in the future. In closing, functional fitness is a better option for the overall health and fitness of the force. An increased investment in functional fitness will undoubtedly improve mental and physical toughness, increase readiness and resilience, reduce injuries, improve morale, and build more cohesive teams.

MAJ Chris Mattos currently serves as the G3 Training of the 25th Infantry Division at Schofield Barracks, HI. His previous assignments include serving as a rifle and a reconnaissance platoon leader with 1st Squadron, 2nd Cavalry Regiment, Rose Barracks, Germany; assistant S3, 1-2 CAV; maneuver planner, G5, 101st Airborne Division, Fort Campbell, KY; assistant S3 and company commander with 1st Battalion, 187th Infantry Regiment, 3rd Brigade Combat Team, 101st Airborne Division; and tactical officer, U.S. Military Academy (USMA) Preparatory School at West Point, NY. MAJ Mattos graduated from the following military courses: Ranger School, Airborne School, Sniper Employment Leader Course, Javelin Gunner Course, Stryker Leader Course, Reconnaissance and Surveillance Leaders Course, Basic Officer Leader Course, Infantry Basic Officer Leader Course, Maneuver Captains Career Course, Command and General Staff Officers Course, Army Security Cooperation Planners Course, and a Strategic Broadening Seminar on Dense Urban Studies. He earned a bachelor’s degree in operations research from USMA and a master’s degree in organizational psychology from Teacher’s College, Columbia University, NY.

Lower Echelon and High Impact:

Indonesian Platoon Exchange 2020

CPT JASON HOOVER

The 25th Infantry Division earned the nickname “Tropic Lightning” due to its rapid deployment and fierce fighting throughout the Pacific Campaigns in World War II. The division again proved its lethality in the jungle environment in Vietnam where Light Fighters of the Tropic Lightning Division bravely fought through treacherous jungle terrain. As the only division in the U.S. Army that has never been stationed within the continental United States, the 25th Infantry Division routinely trains inside of its assigned area of responsibility (AOR). This training is most often executed through deployments and training exercises with allies and key partners, ranging in size and scope from brigade and division-supported joint, multi-country, and multi-exercise deployments to smaller scale unit-level subject matter expert exchanges.

Annual bilateral or multinational exercises such as Cobra Gold in Thailand, Yama Sakura in Japan, and Garuda Shield in Indonesia remain valuable training opportunities to allow Light Fighters to build readiness, lethality, and interoperability within the U.S. Indo-Pacific Command AOR. Multinational exercises not only provide senior leaders the opportunity to engage about shared national interests, but for junior Soldiers to train shoulder to shoulder with partners and inculcate the skills necessary to win in the Pacific. While the larger scale exercises are important to improve the ability of the division to operate across the AOR, the small-scale missions and exchanges can have a significant impact as well. The smaller scale training events empower junior leaders to plan and execute training within the Indo-Pacific AOR, enabling elements of the division to operate in the AOR at a relatively lower cost and thus more persistent basis. The Indonesian Platoon Exchange 2020 — conducted by platoons from 3rd Squadron, 4th Cavalry Regiment, 3rd Brigade Combat Team, and platoons from two battalions of the Indonesian



Photo by 1LT Brian Amato

A Soldier assigned to 3rd Squadron, 4th Cavalry Regiment learns techniques in jungle movement, tracking, and counter-tracking from an Indonesian Army soldier on 16 November 2020.

Army (Tentara Nasional Indonesia-Angkatan Darat [TNI-AD]) — improved the readiness and tactical interoperability of our two armies. The exchange also achieved strategic partnership objectives and honed the skills required for the 25th Infantry Division to deploy elements across the Pacific.

The forward deploying element of the exercise required a U.S. platoon from C Troop, 3-4 CAV to deploy to Malang, Indonesia, to train with the Indonesian Army's 502nd Airborne Battalion. The planning phase began with specified training objectives identified by both U.S. and TNI-AD units. Once these training objectives were identified through collaborative planning sessions, the platoons began planning within the 10-step training model. The exercise provided an opportunity to train on the squadron's mission-essential tasks of infiltration and area security while simultaneously training the TNI-AD's mountaineering and patrol objectives. Leaders fully empowered platoon leadership to plan and execute their training plan based on the commander's intent. Throughout the planning process, the platoon leadership participated in weekly interim progress reviews hosted by division and brigade planners that allowed them to directly provide and receive inputs to the training plan. This was a unique opportunity to truly flatten the planning hierarchy and coach junior leaders at the platoon level about considerations and planning inputs that are normally reserved for squadron-level staff and above. This resulted in a common operating picture that flawlessly synchronized efforts from the division to platoon level.

The platoon deployed in late October and conducted a two-week restriction of movement (RoM) in accordance with COVID-19 guidance at a hotel in Surabaya, Indonesia. During this time the platoon continued coordination with the 502nd Airborne Battalion and conducted final rehearsals utilizing Microsoft Teams and other virtual mediums. Once released from RoM, the platoon moved to Malang, Indonesia, to begin the 11-day training plan. The first three days of training focused on individual soldier skills. Instructors from the TNI-AD and U.S. platoon conducted blocks of instruction utilizing their respective doctrine to teach reconnaissance fundamentals, camouflage, and tactical combat casualty care.

The next three days of training focused on operations at the squad level. Integrated squads of U.S. and TNI-AD Soldiers conducted security patrol lanes, jungle tracking lanes, and Indonesian jungle survival operations. The platoon of Light Fighters gained a new perspective of jungle operations during movements across the unrelenting jungle terrain of East Java. The classes and training conducted by the TNI-AD stressed the importance of self-sustainment during continuous jungle operations. This particular perspective focused on mission planning by increments of weeks, instead of days, prior to resupply. This emphasis on survivability and sustainment reinforced the importance of route selection, terrain analysis, and load plans to the U.S. platoon's NCOs. The final days of training focused on mountaineering and infiltration techniques. The U.S. platoon taught classes on lead climber implementation in severely restricted terrain, casualty evacuation utilizing a z-pulley, U.S. Army knots, and rappelling techniques. While the previous patrolling blocks of instruction challenged U.S. personnel to understand our sustain-

ment limitations, these blocks of instruction challenged the TNI-AD leadership to understand their limitations on casualty evacuation, specifically with respect to their prolonged jungle operations. The infiltration training concluded with a practical exercise of rappelling from the 90-foot Coban Jahe Waterfall.

Simultaneous to the training executed in Indonesia, a platoon from the TNI-AD deployed to Schofield Barracks, HI, to complete the platoon exchange. The platoon from the 431st Para Raider Battalion trained alongside a U.S. platoon from Apache Troop, 3-4 CAV. As with the forward-deployed element, the small scale of the exchange provided some flexibility in training development that enabled a collaborative approach. At the request of the TNI-AD, the training incorporated elements of military operations on urban terrain, something that has not been emphasized in our standard training approach. Additionally, the exchange provided an opportunity to showcase the 25th Infantry Division Lightning Academy's Jungle Operations Training Course as both platoons conducted mobility, survival, and jungle operations lanes. The training also covered elements of mounted and dismounted movement, communications training and interoperability, and physical fitness and cultural events. Through the exchange, the U.S. troopers were able to train shoulder to shoulder with key partners and refresh our knowledge of tactics, techniques, and procedures (TTPs) in urban terrain while the TNI-AD had the opportunity to exchange TTPs with the U.S. Army jungle experts.

Similar to larger scale exercises such as Garuda Shield, the Indonesian Platoon Exchange 2020 increased interoperability and cemented relationships with a key partner in the Pacific AOR. Additionally, the execution of the exchange provided an incredible opportunity for junior leaders to execute

the 10-step training model and truly own the training, while the smaller scale mitigated some of the higher risk and cost associated with larger scale international training exercises. By conducting tough, realistic, and challenging training within the arduous jungle terrain of Indonesia and here in Hawaii, the Light Fighters from across 3-4 CAV and the Bronco Brigade continued the prestigious legacy of the 25th Infantry Division's ability to rapidly deploy and conduct operations throughout the Pacific.



Photo by SSG Alan Brutus

A Soldier assigned to 3rd Squadron, 4th Cavalry Regiment shows Indonesian soldiers from the 431st Para Raider Infantry Battalion how to operate a small unmanned aircraft system during military operations on urban terrain training at Schofield Barracks, HI, on 22 November 2020.

CPT Jason Hoover currently serves as an assistant professor of Military Studies at Louisiana State University. He formerly served as the commander of Comanche Troop, 3rd Squadron, 4th Cavalry Regiment, 3rd Infantry Brigade Combat Team, 25th Infantry Division, and Beast Company, 2nd Battalion, 35th Infantry Regiment, 3rd IBCT, 25th ID. He is a graduate of the U.S. Military Academy at West Point, NY, with a Bachelor of Science in International and Comparative Legal Studies.

Lessons from the Past



‘Follow Me!’

A Brief History of the Infantry School Shoulder Patch

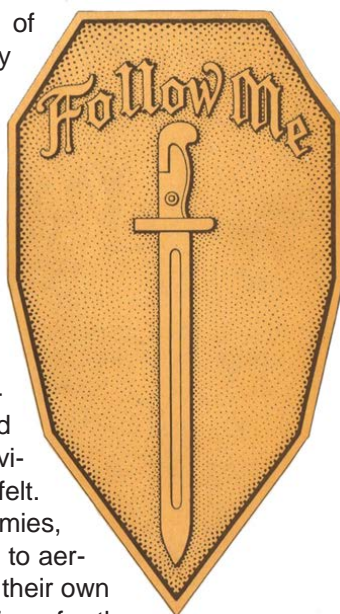
DAVID SCOTT STIEGHAN

The shoulder patch of the U.S. Army Infantry School at Fort Benning dates back to just after World War I. There have been subtle changes over the years, but the basic elements and meaning are the same.

Army Soldiers began wearing theater-produced shoulder patches on their uniforms during the last few weeks of World War I. The first was the 1st Division's "Big Red One" of red felt. The other divisions, corps, armies, and a few specialty units down to aerial squadron created and wore their own patches. It was considered unique for the new Camp Benning to create a shoulder patch for a school rather than a unit.

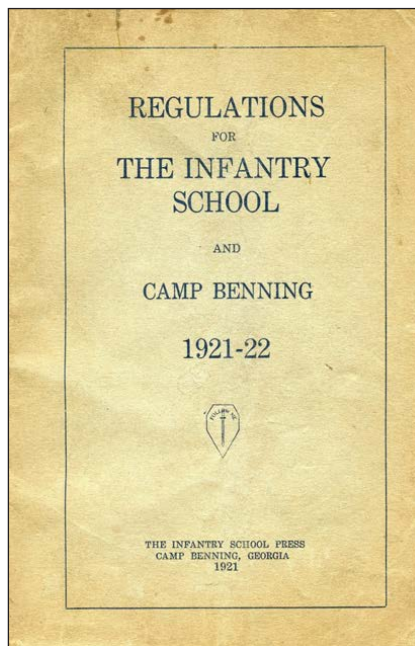
The elements are the shield of a foot Soldier, the U.S. Model 1905 Rifle Bayonet, the background color of Infantry blue, and the motto "Follow Me!" While there are a number of legends regarding BG Henry L. Benning using the order at the Battle Chickamauga, etc., the motto is adopted from a command in the 1918 Infantry Drill Regulations for a leader to get a group of Infantry Soldiers to move at their direction in the field.

In 1922 to 1923, the U.S. Army officially recognized the Infantry School as a branch school and authorized the post name change to "Fort Benning" as a permanent installation. At the same time, the tip of the bayonet was reversed from



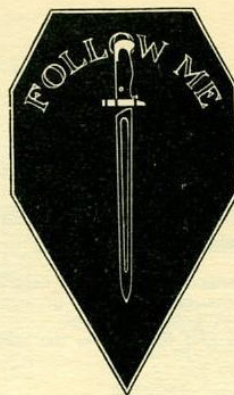
the attitude of honoring the dead to the position of combat at the end of a rifle. The motto then was changed to block letters to make it easier to machine embroider.

During the Vietnam War, a subdued green and black version of the "Follow Me" patch was created for wear on fatigue uniforms in garrison just as the troops would wear in combat. The patch was last "sealed" in 1967 and the official sample is with The Institute of Heraldry files in Washington, D.C. Since the original form of the Camp Benning Infantry School patch was only in use for a little over four years, the appearance of the symbol with the bayonet pointing downwards helps date early documents or booklets. Pictured are some of the favorite examples of the early Infantry School symbol.



David Scott Stieghan currently serves as the U.S. Army Infantry Branch Historian at Fort Benning, GA. Currently, he is editing the Doughboy Series of original World War I Soldier reminiscences for the University of North Georgia Press. He also edited *Over the Top*, which was published in 2017, and *Give 'Way to the Right*, released in November 2018.

At left, one of a few items preserved printed items from Camp Benning shows the original form of the crest with the bayonet pointing downward. The following page shows a page from the original 1920-21 Infantry School Company Officers and Basic Officers Course class book, *The Doughboy*. (Many of these old publications can be accessed on the Donovan Research Library's website at <https://www.benning.army.mil/Library/Doughboy/index.html>.)



Our Emblem.

The device of the Infantry School is thoroughly symbolic of the ideals and the role of the institution it represents. A shield azure bears a bayonet argent surmounted by the motto, "FOLLOW ME." The shield itself is of a type borne by the foot soldiers of old. The color is the distinctive infantry blue. The bayonet is the paramount Infantry weapon.

By the bayonet, or the threat of the bayonet, is ground captured, the line advanced, the battle won. The cavalryman with his saber and his vaunted "shock action," the artilleryman with his big guns, the aviator with his far-seeing eyes and deadly bombs, are well-nigh indispensable, but after all they exist only to aid the Infantryman, who with his cold steel meets the enemy face to face and must conquer him hand to hand. In all conflicts the primary tactical principle of the offensive, which alone is decisive, is to go forward with the fixed determination of driving home the bayonets of the Infantry. The staff is in command, but the man behind the bayonet is at the head of the army. He is the first to pierce the enemy line, and his final position marks the limits of the ground actually taken. Infantry determines the victory; Infantry pays the greatest price in casualties, and Infantry has the place of honor. Infantry leads, the others follow. All the supporting arms exist only for the assistance of the Infantry, exist so that the man power of the Nation may push on and close with the bayonet. If the bayonet could speak, what could it say but "FOLLOW ME."

Our motto is appropriate, for it breathes the very spirit of the bayonet and of those who wield it—the Infantry. "FOLLOW ME" is the prescribed command by which the corporal leads his squad, the basic Infantry unit. It is distinctively American, found in no other army, and is typical of the manner in which American troops are *led*, not driven, into action.

What more significant emblem could have been devised for the Infantry School? As the Infantry leads the other arms on the field, so does the Infantry School lead the Infantry. Amid the woods and hills and plains of Camp Benning the School is developing and training officers and non-commissioned officers to be leaders of men. The School is teaching the best modern applications of tactical principles. The School is preparing for our Army a better Infantry. The School says with confidence to our sixty-five regiments of Infantry, as the Infantry itself says to the Army as a whole: "FOLLOW ME."

—Capt. Elbridge Colby, Inf.

Book Reviews

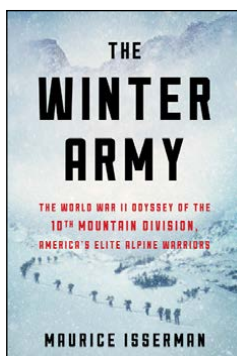


The Winter Army, The World War II Odyssey of the 10th Mountain Division, America's Elite Alpine Warriors

By Maurice Isserman

NY: Houghton Mifflin Harcourt,
2019, 336 pages

Reviewed by CPT Craig Penley



From Napoleon's invasion into Russia in 1812 and Hitler's failed 1941 Russian campaign, history has proven time and time again that the cold is a more daunting foe than the enemy. In his book *The Winter Army*, Maurice Isserman skillfully recreates the story of how America recognized the threat brutally cold weather imposes on an army and developed what became known as the 10th Mountain Division. While mainly written as a historical rendition of the 10th Mountain Division's legacy, the book has applications for skiing and outdoor enthusiasts or for Soldiers training in extreme cold-weather conditions.

Using primary sources, Isserman recreates the story of the 10th Mountain Division's birth. He masterfully crafts this World War II history from personal letters and official military correspondence. In Isserman's work, local and national newspapers corroborate events discussed in Soldiers' letters. The reader gets to know the Soldiers and civilians who took the idea of ski troopers and created the only American Army division specialized for mountainous and arctic conditions.

Although there is no main character in Isserman's book, one personality stands out amongst all the others. His name is Charles Minot "Minnie" Dole, who is credited as the founder of the mountain troopers. In 1940, the German army possessed three full mountain divisions with the finest trained and equipped winter and mountain troops in the world. Out of the fear of a potential British defeat and a German invasion of Canada, Dole realized America needed elite mountain Soldiers. As the founder and director of the National Ski Patrol System, he lobbied the United States War Department to create a unit of ski troopers, which later became the 10th Mountain Division. He based his vision off the white-camouflage-clad Finnish ski soldiers who repelled a Russian invasion for three months in 1940. Dole considered these Soldiers to be "a perfect example of men fighting in an environment with which they were entirely at home and for which they were well trained." From this vision, American fighting men transformed into masters of mountainous warfare and left a legacy felt well beyond the

military apparatus and into modern times. Many of these men played a leading role in the post-war expansion and transformation of the outdoor winter sports industry.

I personally enjoyed reading this book because at the time I was going through cold weather training as a Green Beret with 10th Special Forces Group in the Colorado Rocky Mountains. Many of the stories and exploits in *The Winter Army* rang true as I spent three weeks in negative 20-degree weather, experiencing many of the same emotions as the men who were doing the same training 80 years earlier in almost the same location.

However, some readers may not get the same enjoyment out of it as I did. Isserman did not write this book to be like *We Were Soldiers* or *Black Hawk Down*. *The Winter Army* is not a gripping war story where the reader hangs onto every word to absorb the fear and euphoria combat brings. Without this stimulus or physically standing at Camp Hale to see the mountains on which the first men of the 10th Mountain learned to ski, some readers may find the book dry.

Despite this minor flaw, I highly recommend Isserman's *The Winter Army*. If you're a modern day 10th Mountain Soldier, outdoor enthusiast, find yourself on the slopes of Colorado, or in a snow igloo (like I was), I recommend picking up a copy and reading about the "original ski bums," the Soldiers of the 10th Mountain Division.

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