

Infantry

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Volume 107, Number 4

DEPARTMENTS

INFANTRY NEWS

2 FIRST 22-WEEK INFANTRY OSUT COMPANIES GRADUATES

Bryan Gatchell

4 ARMY TO RELEASE SQUAD MARKSMANSHIP TRAINER

Devon L. Suits

5 S2PRINT WILL INCREASE LETHALITY, RESILIENCE

Jane Benson

6 ARMY TESTING MORE EFFECTIVE GHILLIE SUITS

David Vergun

7 ARMY UPDATES FUTURE OPERATING CONCEPT

Sean Kimmons



PROFESSIONAL FORUM

8 A LIGHT INFANTRY COMPANY AT NTC

CPT Michael Kearnes
1LT David Diaz

13 TLP TIME MANAGEMENT AT NTC

CPT John David Tydingco

16 DEMYSTIFYING SPACE: HOW TO PERFORM BETTER IN THE SPACE DOMAIN

LTC Coley D. Tyler

20 INFANTRY BATTALION S4 OPERATIONS IN GARRISON

MAJ James B. Prisock
CPT Jeffrey W. Nielsen



25 **WHAT SHOULD THE BRIGADE BE DOING?
DECONSTRUCTING THE 'BRIGADE FIGHT'**

COL Curtis A. Buzzard
COL Jacob J. Larkowich
LTC Michael W. Kurtich
LTC Travis D. Shain
MAJ Kristopher T. Gillett
MAJ Durwood E. Johnson
MAJ Jared N. Ferguson

TRAINING NOTES

- 34 **THE LOST ART OF DEVELOPMENTAL
COUNSELING**
SFC Daniel Signore
- 36 **MEETING OUR ENEMIES IN THE MOUNTAINS**
LTC (Retired) Charles D. Henry

LESSONS FROM THE PAST

- 40 **THE BELLS OF BALANGIGA: A TALE OF
MISSED OPPORTUNITY**
Carole Butcher
- 44 **GOD BLESS THINKING SOLDIERS: A FORMER
BATTALION COMMANDER'S ADVICE TO
FUTURE COMBAT COMMANDERS**
COL (Retired) Frank Hancock

BOOK REVIEWS

- 47 **THE LAST DROP: OPERATION VARSITY
MARCH 24-25, 1945**
By Stephen L. Wright
Reviewed by Chapel Collins
- 48 **THE RUSSIAN ARMY IN THE GREAT WAR:
THE EASTERN FRONT, 1914-1917**
By David R. Stone
Reviewed by Maj Timothy Heck, USMC

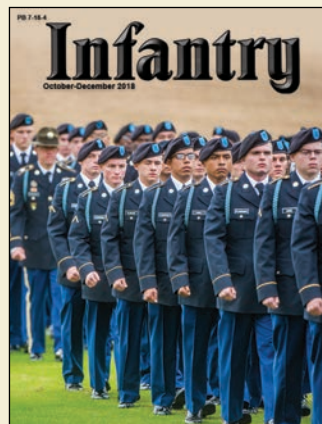
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ON THE COVER:



The pilot class for the transformed 22-week Infantry One-Station Unit Training graduated on 7 December on Inouye Field at the National Infantry Museum in Columbus, GA. Changes to OSUT are meant to increase Soldier readiness, making them more lethal and proficient before they depart for their first duty assignment. Read more on page 2. (Photo by Patrick Albright)

BACK COVER:

U.S. Army Paratroopers with Company A, 2nd Battalion, 503rd Infantry Regiment, 173rd Airborne Brigade, conduct a platoon level live-fire exercise at the 7th Army Training Command's Grafenwoehr Training Area in Germany on 19 March 2018. (Photo by Gertrud Zach)





First 22-Week Infantry OSUT Companies Graduate

BRYAN GATCHELL

The pilot class for the 22-week Infantry One Station Unit Training (OSUT) graduated on 7 December at the National Infantry Museum in Columbus, GA.

The pilot program resulted in significantly fewer Soldiers leaving the class — less than 6-percent attrition compared to 10-12 percent for the 14-week Infantry OSUT.

This pilot, which began 13 July, expanded Infantry-specific training to bolster readiness, lethality, and proficiency before Soldiers arrive at their first duty station. The pilot program accomplished this by expanding weapons training, increasing Soldiers' vehicle-platform familiarization and combatives training, adding a 40-hour combat-lifesaver course, increasing land navigation, and adding a combat water survivability test.

At the graduation, MSG (Retired) Leroy A. Petry, a Medal of Honor recipient who served with the 75th Ranger Regiment, served as the distinguished speaker.

"The extra time and effort that was demanded (of) you may have been difficult, but I look at you as the lucky ones for doing the 22-week course," he said during his remarks. "You have a better starting point than anyone before you, including myself. The skills that (you) learned in the heat and the dirt and the mud and the woods and the cold and the tireless nights and the early mornings and the physical training and weapons training were... to prepare you to be your best, to be resilient, to be more successful."

Soldier Lethality

The pilot OSUT is, according to SMA Daniel A. Dailey, "the first step toward achieving the vision of the Army of 2028." The Army Vision, published earlier this year, puts forth that the Army 10 years from now "will be ready to deploy, fight,



Photos by Patrick A. Albright

Soldiers stand in formation during the graduation ceremony for the pilot class of the 22-week One Station Unit Training for Infantry Soldiers on 7 December.

and win decisively against any adversary, anytime [sic] and anywhere, in a joint, multi-domain, high-intensity conflict, while simultaneously deterring others and maintaining its ability to conduct irregular warfare." The capabilities the Army is developing to achieve this are "centered on exceptional Leaders and Soldiers of unmatched lethality."

Soldier Lethality is one of the Army's six modernization priorities, which were developed to prepare the Army for a war with peer or near-peer competitors.

COL Dave Voorhies, commander of 198th Infantry Brigade which conducts Infantry OSUT, said his brigade's part in advancing Soldier Lethality has less to do with innovations and more to do with establishing firmer fundamentals: marksmanship, physical training, land navigation, combat lifesaver skills, combat water survival, Soldier discipline, and more.

“If we do our jobs appropriately, if we professionally mold these kids into Infantrymen, they’ll be able to out-PT their team leader, outshoot their squad leader,” Voorhies said. “They’re going to be as good if not better than their combat lifesavers, maybe as good to help medics out. They’re going to be qualified on the machine gun, maybe two, so there’s fungibility where you put them in your battle roster. They’re going to be the ones certified in combatives... It’s what you expect out of those that close with and destroy the enemy.”

Although much of future warfighting involves integrating new technologies into mission execution, Voorhies said some of the training was a deliberate step away from that.

“We’re so tied to cellphone technology and digital technology — and our enemies know that — that we’ve got to be experts at the basics,” he said. “Experts at the basics means knowing what you’re doing without technology — you know, map and compass — and they loved it!”

“More Successful”

The 22-week training cycle, in addition to being novel for the trainees, was also new for the instructors and leaders of the two companies that participated in the pilot — Bravo Company, 2nd Battalion, 58th Infantry Regiment, and Echo Company, 2nd Battalion, 19th Infantry Regiment.

Much of the instructors’ stated task was to increase sets and repetitions for the trainees “so that they’d be more proficient,” said LTC Stephen Bourdon, commander of 2-58 IN.

“We didn’t really focus on fancy new tasks; it was just more sets and repetitions, including more night tasks that we hadn’t done before, to make them more proficient on stuff that we were already doing,” Bourdon said. “And at the same time, even though it’s not written in the POI (program of instruction), what both battalions tried to get after is... can we get the light bulb switched on early by having them here for more time, doing more concurrent training? Doing more sets and repetitions, can we make them more adaptive Soldiers and think a little bit on their own and for themselves earlier and (be) more self-led. And basically it would amplify their learning curve on all those tasks if we could accomplish that early. That was an intangible we tried to get after earlier.”

“Not only are they doing it in a classroom environment, now they’re doing it in a field environment and getting more comfortable when the conditions change,” said LTC Frank Adkinson, commander of 2-19 IN. “They’re applying it where Infantrymen actually

apply it. So they’re going to go to a squad and not only be comfortable executing a task but executing that task in a varied environment.”

Future Training

Following the Infantry OSUT pilot, an evaluation will take place. The 198th Infantry Brigade will conduct after action reviews (both internal and external, informal and formal) and will brief to the U.S. Army Infantry School leadership, to the Maneuver Center of Excellence leadership, and ultimately up to U.S. Army Training and Doctrine Command on what resources are required and more.

In addition to being evaluated during their training by the Directorate of Training and Doctrine at Fort Benning and the Army Research Institute, the newly trained Infantrymen will also be evaluated at their next duty station 90 days after graduating. Voorhies said ultimately the Infantry Soldier, as a combat platform unto themselves, is evaluated by U.S. Army Forces Command.

“They need to grade our product,” he said. “Is the differential between what you’ve been giving us at 14 weeks and what we see at 22 weeks great enough to merit the investment of resources? I personally think it is. But I’m not them, and they’re going to have to tell us.”

After an evaluation, the 22-week Infantry OSUT is scheduled to begin in October 2019. All Infantry OSUT instruction will become 22 weeks by October 2020. To accommodate this change, the 198th Infantry Brigade is scheduled to grow by three battalions between February 2019 and September 2020.

Read the complete article at: <https://www.army.mil/article/214765/>.



As part of the pilot to extend Infantry OSUT from 14 to 22 weeks, trainees received instruction on the M240-series medium machine gun on 21 September.

Army to Release Squad Marksmanship Trainer

DEVON L. SUITS

Over the next year, 26 installations are scheduled to receive the new Squad Advanced Marksmanship Trainer — with the first potential location slated for Fort Drum, NY, officials said.

The Army has been working on a squad-immersive environment since 2009, but limitations on virtual reality and other related technologies have hindered the development process, according to MG Maria Gervais, director of the Synthetic Training Environment Cross-Functional Team (STE CFT).

Recent advancements in the \$5.2 billion virtual reality and gaming industry, though, have enabled the Army to field the virtual marksmanship trainer as an “immediate solution until a more robust squad-immersive environment is developed,” Gervais said.

Tied to the Soldier Lethality Cross-Functional Team, the new trainer is a joint venture with the Marine Corps, helping Infantry and “close combat” forces achieve their training objectives, Gervais explained during the Association of the United States Army’s Annual Meeting and Exposition on 10 October.

During a recent demonstration at Marine Corps Base Camp Pendleton, CA, forces were outfitted with a goggle device synched to the Squad Advanced Marksmanship Trainer. From there, the squad lined up in a four-man stack and went through a series of breach and clear scenarios, the general said.

Through the marksmanship training device, one scenario transported breaching forces to a Middle Eastern virtually-constructed environment, where they engaged with simulated enemy forces. More importantly, Gervais said, the four-man stack was able to do this while navigating through a live training environment.

“Now, we’re seeing technology where you can link the squad in, they can move, they can shoot, and keep going,” she said. “So, pretty exciting stuff.”

In addition to the virtual trainer, the STE CFT recently approved an “Army Collective Training Environment Initial Capability Document” to serve as the foundation for all STE support elements.

“We need to be able to provide our Soldiers and leaders the ability to conduct hundreds of repetitions wherever they



U.S. Army graphic by Peggy Frierson

The Synthetic Training Environment is an emerging Army capability that will converge current live, virtual, constructive, and gaming environments into a single simulation training environment.

are located so they can improve muscle memory and increase proficiency,” Gervais said. “The STE makes it possible to enhance home-station training and unit performance. Most importantly, the STE is focused on establishing common standards, common data, and common terrain to maximize interoperability, ease of integration, and cost savings.”

Moving forward, the CFT is considering what architecture and industry support is necessary to maintain the STE as a service, the general said. Similar to the way Netflix works, incorporating a “training as a service” business model would potentially keep the STE up to date with the newest tools, providing Soldiers the best possible training without any latency.

“With One World Terrain, we want to be able to pull down terrain at the right fidelity. If you’re a squad, the fidelity has got to be better,” Gervais said.

In addition to the right fidelity, the Army must streamline the materiel process to avoid slowing the research, development, and acquisition procedures supporting STE, said Retired GEN Peter W. Chiarelli, former vice chief of staff of the Army.

“This is not a tomorrow problem. This isn’t a problem that we need to wait five years to develop requirements, and wait another eight to 10 years to go ahead and field something to Soldiers. We need choice — we need to turn to industry,” Chiarelli said.

S2PRINT Will Increase Lethality, Resilience

JANE BENSON

“No Soldier ever fights alone,” says Cynthia Blackwell, the project director of the Soldier Squad Performance Research Institute (S2PRINT) at the Natick Soldier Research, Development and Engineering Center (NSRDEC).

The ways in which Soldiers interact individually, in squads, and on small teams play a key role in success on the battlefield. This is one of the main ideas behind the creation of the S2PRINT.

NSRDEC and the U.S. Army Research Institute of Environmental Medicine (USARIEM) have joined together to lead the development of this state-of-the-art facility, which is slated to be built at the Natick Soldier Systems Center in Natick, MA.

The institute will empower NSRDEC’s and USARIEM’s world-class scientists and engineers with a controlled, cutting-edge, and mission-relevant environment in which to perform applied studies to uncover ways to optimize Soldier and squad performance and enhance combat readiness.

S2PRINT’s emphasis is on Human Performance Optimization, with research focusing on the individual Soldier’s and the squad’s cognitive, social, physiological, physical, and nutrition-based performance. Blackwell explained that S2PRINT will provide the Army with a greater understanding of teams, leading to the optimization of team interactions and team dynamics.

S2PRINT will help researchers to develop validated performance and training strategies; tools and interventions for the Soldier, leader, and small unit; techniques to mitigate injury; and interventions to increase Soldier and squad resilience and longevity.

Studies performed in the S2PRINT facility, which will include several operationally relevant laboratories, will help researchers baseline, measure, predict, and

optimize individual and small unit readiness, performance, and resiliency across real-world, mission-essential tasks. Outcomes/findings of this research will ultimately help improve readiness, enhance mission performance, and increase Soldier and squad lethality.

The new facility will also enhance NSRDEC’s and USARIEM’s already strong collaborations with top-notch academic institutions, cutting-edge industrial partners, and other DOD agencies and initiatives. As with other work performed by NSRDEC and USARIEM, the knowledge obtained through S2PRINT will lead to technologies and informational resources that will benefit not only warfighters but also first responders.

Moreover, Natick will be able to develop and evaluate prototype gear and emerging technologies more quickly than ever before, accelerating the delivery time of critical information and equipment to troops in the field — all while reducing costs.

S2PRINT is expected to become operational in the spring of 2023.



Photo by CPL Gabrielle Weaver

Soldiers with the 2nd Battalion, 503rd Infantry Regiment, 173rd Airborne Brigade, engage opposing forces in a simulated exercise during Saber Junction 18 in Germany on 26 September 2018. The ways in which Soldiers interact individually, in squads, and on small teams will be a key area of study for the Army’s new Soldier Squad Performance Research Institute.



U.S. Army photo

The current ghillie suit, known as the Flame Resistant Ghillie System, is shown above. A new suit is under development.

Army Testing More Effective Ghillie Suits

DAVID VERGUN

The Army is looking for an improved ghillie suit to replace the flame-resistant, camouflage suit now worn by snipers to keep them from being seen by the enemy.

The current ghillie suits are bulky, somewhat uncomfortable and hot in warm weather, said Debbie Williams, a systems acquisition expert with Program Executive Office Soldier, Product Manager Soldier Clothing and Individual Equipment.

The current suit is known as the Flame Resistant Ghillie System (FRGS). The replacement the Army is looking for will be called the Improved Ghillie System (IGS), Williams said. She added that although the term “flame resistant” is not in the new name, the IGS will still have flame-resistant properties. Soldiers will receive most of their protection from the base layer worn under the IGS, such as the Flame Resistant Combat Uniform (FR ACU).

The IGS will be a modular system, worn over the field uniform, she said. It will be modular in that it can be taken apart, with pieces added or subtracted as needed, such as sleeves, leggings, veil, cape, and so on.

Another change is that the IGS will not come with the accessory kit, like the one supplied with the FRGS, Williams said. It was found that Soldiers were not using a majority of the items in their accessory kit or preferred a different material.

Williams said the cost of the IGS will be lower than the current \$1,300 FRGS.

Mary Armacost, a textile technologist with Product Manager Soldier Clothing and Individual Equipment, said the IGS will be made of lighter, more breathable material than the FRGS. Also, the material for the skeins that accompany the IGS will be stiffer than that of the FRGS, thereby making the IGS more effective at camouflaging the Soldier.

About 3,500 suits are expected to be produced under the contract for approximately 3,300 snipers in all three Army components, as well as Soldiers in U.S. Special Operations Command, Williams said.

After the samples are obtained, lab and field testing will begin at various locations, she said. For example, the Army’s Night Vision Laboratory will do full-spectrum testing. It will also use night vision goggles to see how well the suits remain hidden in darkened conditions.

Daytime testing for visual camouflage effectiveness will take place as well, with sniper-qualified Soldiers at Eglin Air Force Base, FL, Williams said. Additionally, acoustic testing will be done by the Army Research Laboratory (ARL) to determine how much noise the IGS produces in field conditions.

ARL will also test the effectiveness of the fabric regarding tear resistance and fire retardant effectiveness, she added.

Following all of this, a limited user evaluation should commence next spring using instructors from the Sniper School at Fort Benning, GA.

Army Updates Future Operating Concept

SEAN KIMMONS

Army leaders have released the latest version of the service's future fighting concept, which focuses on, among other things, possible solutions to counter and defeat layers of stand-off created by adversaries.

"The U.S. Army in Multi-Domain Operations 2028," also referred to as MDO Concept 1.5, further refines the Multi-Domain Battle concept published last year.

The name was changed to better align with sister services and interagency efforts.

In it, the concept asserts that over the years adversaries have studied how the U.S. military operates. Emerging technologies — such as artificial intelligence, hypersonics, machine learning, nanotechnology, and robotics — have also changed the character of war.

"The American way of war must evolve and adapt," Chief of Staff of the Army GEN Mark A. Milley wrote in the foreword of the concept, which was published on 6 December 2018.

Though not the final product, Milley noted that MDO Concept 1.5 is the first step in the service's doctrinal evolution.

"It describes how U.S. Army forces, as part of the Joint Force, will militarily compete, penetrate, dis-integrate, and exploit our adversaries in the future," he wrote.

In about a year, Army leaders expect to publish another updated concept using lessons learned from previous exercises. The general also encouraged Soldiers to read and understand the concept now, so that they can provide input.

"Every one of you is part of our evolution and the construction of our future force," he wrote, "and we want your critical feedback."

While the latest concept still revolves around operations in the land, maritime, air, space, and cyberspace domains, it provides refined solutions based on experimentation.

A challenge the new concept aims to tackle is layered stand-off, which adversaries can use in those domains to achieve strategic aims without engaging in armed conflict. Those aims, for instance, could be to separate the United States from its partners in the political, military, and economic realms.

Deterrence through the "rapid and continuous integration of all domains" is key in overcoming this challenge, according



TRADOC Pamphlet 525-3-1, *The U.S. Army in Multi-Domain Operations 2028*

to GEN Stephen Townsend, commander of Army Training and Doctrine Command (TRADOC).

"If deterrence fails," he wrote in the concept's preface, "Army formations, operating as part of the Joint Force, penetrate and dis-integrate enemy anti-access and area denial systems; exploit the resulting freedom of maneuver to defeat enemy systems, formations and objectives and to achieve our own strategic objectives; and consolidate gains to force a return to competition on terms more favorable to the U.S., our allies, and partners."

Army leaders believe they can do this by using three core tenets — calibrated force posture, multi-domain formations, and convergence.

"Calibrated force posture combines position and the ability to maneuver across strategic distances," Townsend wrote. "Multi-domain formations possess the capacity, endurance, and capability to access and employ capabilities across all domains to pose multiple and compounding dilemmas on the adversary."

"Convergence achieves the rapid and continuous integration of all domains across time, space and capabilities to overmatch the enemy. Underpinning these tenets are mission command and disciplined initiative at all warfighting echelons."

Based on foundational work by TRADOC and Army Capabilities Integration Center, the Army Futures Command (AFC), which was created last year to lead modernization efforts, will implement the concept. It will also work to develop MDO Concept 2.0.

"The Army is refining strategic direction, integrating the Army's future force modernization enterprise, aligning resources to priorities, and maintaining accountability for modernization solutions," said GEN John Murray, the AFC commander. "We are delivering concepts and capabilities that ensure our Soldiers and formations have overmatch on future battlefields."

Read more at: <https://www.army.mil/article/214632>.

(Editor's Note: MDO Concept 1.5 has been published as TRADOC Pamphlet 525-3-1. The full version can be downloaded from the TRADOC home page at <https://www.tradoc.army.mil>.)



A Light Infantry Company at NTC

CPT MICHAEL KEARNES
1LT DAVID DIAZ

Our experience at the National Training Center (NTC) at Fort Irwin, CA, was the most challenging we had as a company commander and platoon leader. Altogether, we walked more than 80 kilometers in rugged, mountainous terrain and served as the main effort on seven missions. During those operations, our company — Alpha Company, 1st Battalion, 30th Infantry Regiment — destroyed 30 enemy vehicles and more than 100 enemy personnel, and it was detached to serve as the main effort for the 1st Battalion, 64th Armor Regiment during the brigade live-fire exercise (LFX). While the usual experience at NTC is as an armored force, our time in a light infantry company was one of the most transformative of our careers, and it is our hope that we can aid other light infantry leaders as they prepare to fight and win either at NTC or in combat. Light infantry can seize and hold terrain while destroying large numbers of enemy armor through the proper use of Javelins, night movement, and terrain exploitation.

This article will attempt to help guide your preparation for NTC or deployment to a mountainous desert environment. First, we will discuss lessons learned from our pre-deployment training and recommend areas of emphasis prior to arrival at

NTC. Topics include physical training, land navigation, urban training, CBRN (chemical, biological, radioactive, nuclear) training, and recommended squad-level training events. Next, we will discuss lessons identified during our rotation, including vehicle load plans, fires planning, defensive operations, Javelin employment, company movement, and rehearsals. Lastly, we will offer some overall recommendations and conclusions for the future.

Preparation from Six Months Out to Deployment

During your preparation for NTC, there are multiple keys to success, including physical fitness, preparation for the terrain, urban training and certification, CBRN training, and how to fight mechanized vehicles.

A/1-30 IN was stationed at Fort Stewart, GA — essentially a flat swampland — and had to prepare to fight in the mountainous desert of NTC. An infantry unit that conducts training in a particular environment will find itself at a

Soldiers assigned to A Company, 1st Battalion, 30th Infantry Regiment, 1st Brigade Combat Team, 3rd Infantry Division, defend their simulated fighting positions during Decisive Action Rotation 17-05 at the National Training Center on Fort Irwin, CA, on 10 April 2017.

Photo by SGT Ernesto Gonzalez



physical and tactical disadvantage when exposed to a drastically different environment. Training in swamps, devoid of hills and valleys, will not naturally develop the leg muscles needed for scaling mountains. Our physical fitness preparation did not provide a suitable transition from the swamps to the mountains. Although there are no hills, almost every building at Fort Stewart has stairs, including our barracks. While not equivalent to the rigor of traversing mountains, ruck marching utilizing the stairs while wearing an assault pack or rucksack will toughen Soldiers' legs prior to arrival in California. Incorporating leg workouts such as front and back squats, weighted step-ups, and weighted lunges can prepare Soldiers for elevation in ways that rucking and running on flat terrain do not.

A unit that trains in the swamps will find that — while many tactical basics transfer to the mountains — there is a learning curve that can cost lives in combat. Land-navigation skills in the swamp do not rely on terrain association as much as they do in the mountains. The open desert allows for greater line-of-sight, increasing the usefulness of radios and radio communication distances. Finally, Soldiers trained to return fire and seek cover in the swamps must be prepared for the enemy above or below them to avoid hesitation.

Experience in maneuvering forces around draws, over mountains, and through caves is not something that should be learned on the fly in combat. The mountains provide refuge where tanks and armored personnel carriers are unable to follow, and the desert floor retains so much heat that thermal optics can find it difficult to pick out dismounts. In order to effectively use the terrain, however, a rifle company requires maps that allow for route planning. The Fort Irwin military maps were unsatisfactory to this end. The prominence of the Tiefert Mountain range necessitated a contour interval of 20 meters, because any smaller interval of measure would have placed the contour lines on the mountain too close together. While this might provide sufficient information for an armored or mechanized force, it is far from sufficient for a light Infantryman. On the map, an area could look like a plateau flat enough for a helicopter to land on, but in reality be filled with peaks, saddles, boulders, and sheer drop-offs with less than a net elevation change of 20 meters. Infantry leaders should be aware that a map reconnaissance will not yield sufficient information to accurately plan missions. Platoons leaders and commanders must prepare to complete planning with incomplete information. Additionally, during defensive operations the micro terrain will enable excellent concealment to dismounted forces.

Although the Army has transitioned from counterinsurgency



Photo by SGT Ernesto Gonzalez

Soldiers with A Company, 1st Battalion, 30th Infantry Regiment, defend their simulated fighting positions during Decisive Action Rotation 17-05 at the National Training Center on 10 April 2017.

operations to a decisive action training environment (DATE), we will continue to fight in and around the cities. Our unit's training plan focused less on urban operations and more on fighting outside of population centers. This negatively affected the company's ability to fight at NTC, particularly in the main attack on the largest city, Razish, as well as during the brigade LFX. Every team and squad should complete a shoothouse LFX in the months prior to attending NTC. This step would greatly increase effectiveness and validate units prior to the live fire. NTC will not place targets inside of the shoothouse facilities unless training was conducted at home station. Finally, transitions from building to building and block to block are a critical area for training at the squad, platoon, and company levels in order to maintain tempo and proper mass against the enemy.

Another area of training we recommend is CBRN. We conducted sufficient training to don our masks and assume mission-oriented protective posture (MOPP) 4, but we did not have an opportunity to utilize the gas chamber, practice de-masking as a company, and employ the CBRN detection equipment properly. Finally, chemical decontamination is a deliberate, slow, and tedious process that requires training at echelons above company level for proper execution at NTC.

The final point we want to emphasize is the key role that squads and squad leaders play in every company's success. With well-trained and led squads, platoons will be successful, and so will the company. We conducted additional squad exercises after certification live fires and allocated time for squads to practice and rehearse during company-level training. After our squad-level training, each situational training exercise (STX) and LFX integrated anti-armor into the scenario, including our battalion force on force against 1-64 AR and the 3rd Battalion, 69th Armor Regiment.

Execution from Arrival to Departure for Home Station

After our arrival at NTC, several lessons became clearer as the rotation progressed, including ones involving rehearsals, movement tactics, defensive operations, fires planning, air mobility, defense against enemy air, Javelin employment, and the load plan. Our company did not excel in all of these areas, but we hope that our successes and missteps will better prepare future leaders. The most important lessons we learned revolved around rehearsals, Javelin employment, and the use of darkness and terrain to conduct undetected movement and maneuver.

Rehearsals prior to execution are the most important effort leading to mission success. Even on short-suspense missions, squad leaders and up conducted a walkthrough and talk-through rehearsal. This identified issues ahead of time and gave a more complete understanding of the mission to the junior leaders. Before we crossed the line of departure, we gathered the squad leaders and above and physically walked the movement including actions during contact and up to the occupation of the defense. Our best rehearsal was prior to the brigade live fire. We had sufficient time, space, and security to conduct a terrain model rehearsal, followed by a team leader and above walkthrough, and concluded with a 100-percent rehearsal on a large terrain model to show relative positions in time and space. Our iterative, heavily involved rehearsals enabled us to verify that all Soldiers understood the mission and their roles in it.

The structure and formation of our lead platoon during

movement improved the odds of success in meeting engagements and hasty attacks on enemy encountered during movement. Most missions required a traveling overwatch formation, and the mountainous and hilly terrain prevented visibility for the length of a platoon, much less the company. To maximize protection and firepower to the front, our lead squad had a machine gun and a Javelin team under the control of the platoon leader. The commander and fire support officer (FSO) moved immediately behind the platoon leader with a mortar team. This enabled us to fight any threat we encountered with a small portion of the company without having to wait for movement up the column. We killed multiple observers and enemy vehicles without exposing the company to the threat. The company exploited the hours of darkness to move undetected. Nighttime movements in conjunction with the structure of our lead platoon protected the unit during vulnerable movements, even over relatively open terrain.

Every movement and attack ends with a hasty or deliberate defense. Because nearly all of our movements and attacks occurred at night, the leadership and Soldiers were exhausted while we tried to establish a defense. A problem we did not fully solve until the end of the rotation was how to utilize the company executive officer (XO) in the defense. Most nights, the XO moved with the company trains and the first sergeant (1SG) walked with the company, resulting in a more fresh and well-rested XO. A technique to modify the rest cycle is for the XO to establish the defense while the commander and 1SG rest and plan for the next night's mission. After initial occupation, the commander can rest prior to beginning the troop leading procedures for the next night's mission. After planning,

the XO can sleep. This is somewhat non-doctrinal, but the fast-paced nature of an NTC rotation requires rest for the leadership or the overall performance of the company will suffer. Another improvement identified is to issue a standardized timeline by hour on the priorities of work in the defense. For example, if we specified the level of fighting position improvement by hour, it would have mitigated our fatigue and hunger. Although current doctrine recommends 33-percent or even 50-percent security at all times, the terrain at NTC allows — and indeed demands — different procedures. The company can conduct priorities of work, including rest, regardless of the time as long as avenues of approach are overwatched and the unit maintains 360-degree security. All crew-served



Photo by SGT Ian Schell

Soldiers assigned to the 1st Battalion, 30th Infantry Regiment conduct a combined arms rehearsal before a live-fire exercise during NTC Rotation 17-05 at Fort Irwin on 12 April 2017.



Photo by SGT Ian Schell

Soldiers with A Company, 1st Battalion, 30th Infantry Regiment, scan a building interior during NTC Rotation 17-05 at Fort Irwin, on 4 April 2017.

weapons (including the Javelins, M240B medium machine guns, and one mortar system) must remain manned at all times. This reduces the exposure of personnel to the enemy and to the elements; it also increases the ability of the company to manage the rest cycle and improve the defense.

During the rotation, we found that fires best enabled maneuver when the battlefield geography and distribution of fires allowed the lowest commander on the ground to clear fires within his sector or area of operations. Company internal mortars are the most responsive, and the approval authority should remain at the company level in spite of some impulses to maintain clearance at higher echelons. Our mortar men were credited with most of our more than 100 enemy kills. Fires must be planned at battalion and higher echelons in order to be effective, and the company FSO should plan a minimum of four targets per mission, no matter the primary system. The fires response time at NTC does not always match the pace of ground operations. Anticipate times of more than 30 minutes from the initial request to effects on the ground. The only way to mitigate this is to continually request assets when needed and conduct advanced planning.

Another area identified for improvement was in the use of airlift assets to move dismounted infantry. Although the brigade had rotary wing assets available, including both the CH-47 Chinook and UH-60 Black Hawk, the brigade generally did not employ them to move Soldiers due to the extensive enemy air defense threat. In our 14 days at NTC, our company conducted one air movement, and only B Company, 1-30 IN conducted an additional air assault. Although air assault missions can be

burdensome to plan and require assuming risk depending on the air defense artillery (ADA) threat, they can keep the enemy off balance and preserve Soldiers' physical stamina if used effectively. Additionally, helicopters can serve as an element of the deception plan and sell either a feint or a demonstration, thus enabling a greater chance of success for the main effort. The disciplined use of aviation assets to conduct air assaults and air movements can be a combat multiplier and provide brigades another method of changing the tempo to further weight the main effort against the enemy.

The defensive advantage to owning the sky during the daytime cannot be emphasized enough. On the side of a mountain, keeping an entire company camouflaged from ground-based observers is a manageable challenge. What poses a much greater danger are enemy air assets serving as observers for artillery. A light infantry company has limited organic options to counter air assets at a distance. Medium and heavy machine guns have an effective range shorter than the distance from which helicopters can observe. While the FGM-148 Javelin can destroy targets at a further distance than machine guns, the tactical value of each Javelin missile combined with the mobility of the helicopter make its anti-air usage ill-advised. We did not have any FIM-92 Stinger Air Defense systems attached to us during the rotation.

On the defense, the most important weapon system against an armored threat is the Javelin. To an extent, the company exists to employ and protect the Javelin because it is truly a tank killer, and it must be emplaced by the platoon leader and validated by the company commander as one of the first steps in establishing the defense. Each Javelin must be fortified and camouflaged in order to survive long enough to kill enemy tanks. The enemy at NTC always operated as company teams composed of both tanks and armored personnel carriers, and so analyzing the situation required determining the purpose of the enemy force facing us so that we destroyed the appropriate vehicle at the right time based on the commander's intent. The enemy will use the terrain to their advantage and will not skyline or expose themselves unnecessarily. Gunners must scan potential hide spots, and all members of the team need training on the weapon. Javelins require manning at all times, which may mean utilizing non-assigned Soldiers. Additionally, the number of AT4s assigned per platoon is not sufficient given the requirement to disperse the company over a large area. Each squad or even each team should carry one to enable a quick response to enemy vehicles.

For a platoon with multiple Javelin teams, the optimal configuration is to have three personnel per system: a gunner, an assistant gunner, and an ammo bearer. One team should move with the command launch unit (CLU) attached to the Javelin missile while the other team moves with the CLU detached. A detached CLU is a valuable optic that the assistant gunner can use to identify targets. Attaching the CLU takes time, so the second team should have the CLU attached and rotate the weight of the system between the gunner and assistant gunner. Assistant gunners equipped with PSQ-20 night vision devices can easily identify the heat signature of

a personnel carrier or tank turret at night, even if the top is not exposed.

One of the keys to success during execution is a well-thought out load plan with different mission-set equipment configurations. During NTC 17-05, our brigade set the uniform as Improved Outer Tactical Vest (IOTV) without plates, with guidance to upgrade to plates when stationary. However, wearing the IOTV without the plates does not provide sufficient protection to bullets while still increasing the load and strain on the Soldier. We recommend that future leaders accept the risk and create different mission configurations: rucksack only, assault pack only, IOTV with assault pack, and IOTV only. The Light Mobility Tactical Vehicle (LMTV) available to infantry companies can accommodate the above equipment as well as company-level gear as long as the 1SG and XO personally supervise loading and unloading.

The following are further recommendations beyond IOTV posture for Soldier load plans based on our lessons learned. Wet- and cold-weather gear beyond a poncho and poncho liner is unnecessary, especially when Soldiers sleep in their mandatory Joint Service Lightweight Integrated Suit Technology (JSLIST). Soldiers must carry at least six quarts of water because the terrain does not provide collection opportunities for iodine water purification. One Soldier per squad should carry a rudimentary mountaineering kit, consisting of a rope and a few carabiners to aid in ascension and descent. Beyond those items, Soldiers should only carry food (as dictated by mission necessity), ammunition, spare socks, a lightweight sun cover, goggles, entrenching tool, empty sandbags, and minimal weapons cleaning and hygiene kits. This configuration reduces exertion and requires the leaders to determine the appropriate load so that Soldiers are fit to fight on the objective. Focusing on effectiveness on the objective will greatly reduce the amount of extraneous equipment and will allow the company vehicle to load primarily food and ammunition in spite of the requirement to carry personal gear.

Final Thoughts

Although it is not a typical experience to rotate light infantry forces into the deserts of Fort Irwin, we believe that Soldiers who undergo it gain a valuable experience that will benefit

the Army at large. We recommend that the Army continue to mix light and armored forces into the rotations and not simply fight as separate brigades. In order to have a more effective organization at NTC, units must be attached to unlike organizations during training to appreciate both the positive and negative traits of both formations. While 1-30 IN benefited from attaching tank company teams during battalion force-on-force operations, our sister battalions of 1-64 AR and 3-69 AR did not receive light infantry companies until we were already at NTC, increasing the challenge of effective employment. One example of this was when A/1-30 IN was ordered to breach into a town and seize it from the enemy in conjunction with 1-64 AR. Our company moved in LMTVs through the open desert and had to dismount outside of effective small arms range from the town, adding additional time to the attack. One technique would be for a mechanized infantry company to breach the obstacle and establish a foothold in the town. Then the dismounted infantry company would move much closer mounted while the breach occurred to maintain the initiative against the enemy.

During NTC 17-05, A/1-30 IN destroyed numerous enemy and accomplished every mission we were assigned. Although we touched briefly on numerous topics, we did not have the space available to go into great depth in this article. We hope that the lessons learned from our experiences in preparation and execution, especially the importance of rehearsals, the use of the Javelin, dominance of terrain, and night movements will improve performance for other organizations as they prepare to fight and win in combat.

At the time this article was written, **CPT Michael Kearnes** was serving as commander of Headquarters and Headquarters Company (HHC), 2nd Battalion, 69th Armor Regiment. During the rotation to NTC, he served as commander of Alpha Company, 1st Battalion, 30th Infantry Regiment at Fort Stewart, GA. Prior to this assignment, he served as a platoon tactical trainer and battalion logistics officer with the 5th Ranger Training Battalion in Dahlonaga, GA. CPT Kearnes was commissioned as an Infantry officer in 2009 and graduated Ranger School in August 2010.

1LT David Diaz is currently serving as the executive officer of HHC, 2nd Battalion, 69th Armor Regiment. During the rotation to NTC, he served as platoon leader of 1st Platoon in A/1-30 IN. 1LT Diaz was commissioned as an Infantry officer in 2014 and graduated Ranger School in May 2015.

Soldiers with the 1st Battalion, 30th Infantry Regiment scan their surroundings during NTC Rotation 17-05 at Fort Irwin on 9 April 2017.

Photo by SGT Ernesto Gonzalez



TLP Time Management at NTC

CPT JOHN DAVID TYDINGCO

Maneuver company commanders always ask the same question before arriving at the National Training Center (NTC) at Fort Irwin, CA: “What do I need to do to be successful during my rotation?” The observer-coach-trainers (OCTs) consistently give the same answers. Yet, the maneuver commanders who ask this question still come to an NTC rotation and make all the same mistakes mentioned five months earlier. In an effort to remedy this problem and to help commanders be more lethal against a near-peer adversary, this article will identify some common mistakes made by company commanders at NTC and how to fix them.

There are many mistakes that company commanders make, but there is one that destroys the company from within: a lack of troop leading procedures (TLP) time management. The three necessities to successful TLP time management are:

- 1) Having a trained company command post (CP),
- 2) Developing a continuous cycle of intelligence preparation of the battlefield (IPB), and
- 3) Creating a plan that meets all course of action (COA) screening criteria — suitable, feasible, acceptable, distinguishable, and complete (SFADC).

How does a company make time to plan in a time-constrained environment? These three necessities are the answer. Company commanders may think this is an obvious problem and that they’ve done well with TLPs during home-station situational training exercises (STXs) and company live-fire exercises (LFXs), but they are not taking into account the time constraints of the brigade and battalion at the speed of war. The commander must parallel plan with the battalion at all times. Never wait for the information. Seek it out aggressively and have information dominance.

At NTC, movements and combat operations begin at a fast pace. While the unit prepares for future operations in an assault position, the enemy conducts a spoiling attack. The unit reacts and then the battalion issues a follow-on mission that will need to be executed in five hours with a 20-kilometer movement at night through rough terrain. What does the commander do? The commander needs to ensure that the company is continuously planning in the assault position, but how does the unit get time to plan when it is reporting all sorts of information to its battalion? The company CP is the answer.

The greatest combat multiplier for the maneuver company is the CP. The CP is essential — without it there will be no operation order (OPORD), rehearsal, or synchronization of operations. The CP is one of the most overlooked systems on the battlefield. The company is not given a CP by the modified table of organization and equipment (MTOE), but there are ways to create one. A recommendation is that two NCOs be

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chosen to be the CP NCOICs; one will be on day shift and the other will be on the night shift (Army Techniques Publication 3-90.1, *Armor and Mechanized Infantry Company Team*). These NCOs need to be competent and able to perform their duties with little or no supervision. Although the company is short on Soldiers and this is essentially taking away combat power, the CP is used for planning and preparation only. When it comes time to execute a mission, the personnel taken for the CP will return to their respective platoons or sections.

The CP’s main purpose is to take on the reporting requirements from higher and to perform the predictable things that occur during the planning and preparation phases of an operation. Having the CP complete these tasks will allow the leadership to focus on planning, preparation, and unpredictable situations. The CP is extremely effective for consolidation and reorganization. If the company does not consolidate and reorganize, it will fail to preserve combat power and lose momentum for transitioning to the next phases of operations. It is essential that the CP be set up and validated at home station before deploying to NTC or anywhere else.

Commanders must conduct an effective IPB before planning to maneuver against the enemy. The four steps of the IPB process are:

- 1) Define the operational environment,
- 2) Describe environmental effects on operations,
- 3) Evaluate the threat, and
- 4) Determine threat COAs.

Figure 1 provides a visual review of the cycle as well. While maneuver company commanders will rely on the battalion for the IPB, the company should be conducting its own IPB and making it a recurring cycle of terrain analysis, enemy analysis, and enemy situational template (SITTEMP), or it will not meet the standard for planning. When the company commander first arrives at the rotational unit bivouac area (RUBA), the commander must aggressively engage the S2. Once the information is obtained from the S2, the maneuver commander must conduct the company IPB. After this is complete, the

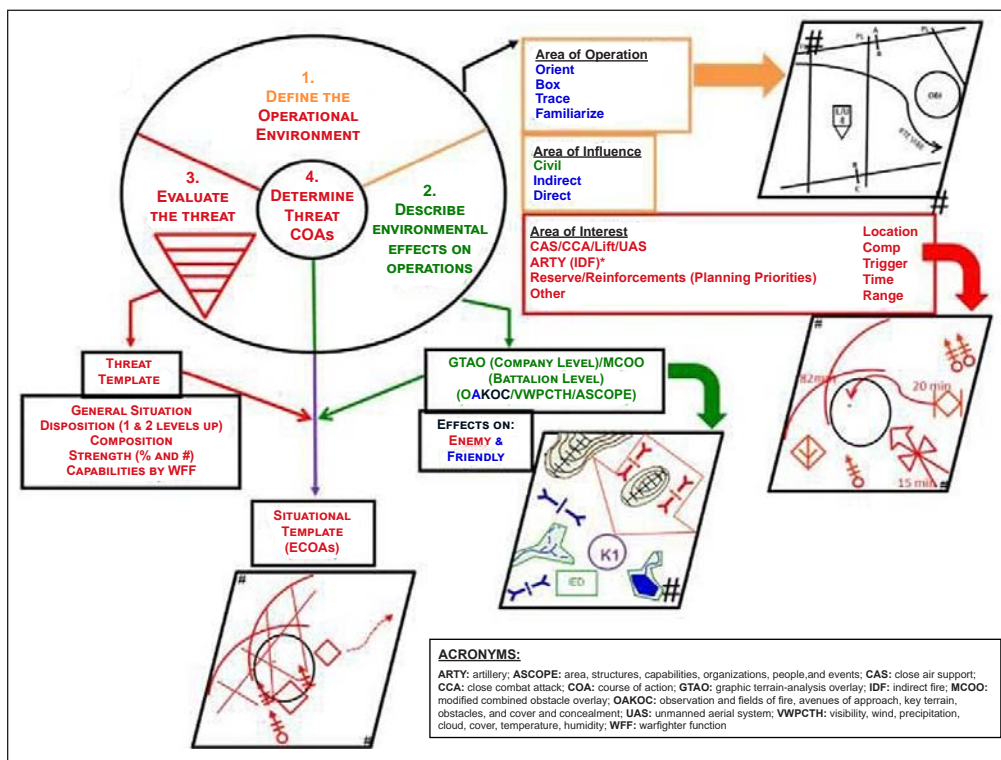


Figure 1 — The IPB Process

commander needs to have a recurring cycle of terrain analysis and update the enemy SITTEMP while conducting continuous combat operations. The best practice is to conduct the IPB process with your subordinate leaders so they understand the ground they will be fighting on and the enemy they will be engaging. This will reduce the time spent trying to brief the enemy SITTEMP in one meeting. Commanders do not need to conduct the entire IPB process once combat operations begin, but they must focus on terrain analysis (use a map that shows elevation), enemy analysis (where they think the enemy will fight using the terrain), and an enemy SITTEMP. Most of the time, the company will be waiting on the maneuver plan from the battalion. Time constraints and other variables will leave a limited amount of time to plan, but if this analysis has already been completed, the maneuver plan will be more effective and take less time to create. Platoon leaders should continually be receiving the commander's analysis and intent for the operation. This aggressive focus on IPB and a recurring cycle of analysis will dramatically increase TLP efficiency, resulting in effective TLP time management.

The recurring cycle of terrain analysis, enemy analysis, and enemy SITTEMP must be done before a company begins movement. A key factor to a consistent battle rhythm is having the fire support officer (FSO) present; this will provide a consistent targeting cycle with indirect fire assets. OCTs consistently mention to commanders that they need to conduct an analysis every time they look ahead at future operations. This analysis should drive two possible maneuver COAs. If time permits, commanders must also teach platoon leaders the maximum effective ranges of enemy weapon systems. For example, the max effective range of the AT-5

is five kilometers. What does this mean? It means that the company will transition from movement to maneuver at about five kilometers from the enemy's AT-5 weapon system, which is called the probable line of deployment (PLD). In a metaphorical sense, the terrain and enemy analysis and an updated enemy SITTEMP are the canvas and the maneuver plan is the paint; without either, there is no painting.

Lastly, company commanders must create a plan that meets all the SFADC COA screening criteria. Now that there is a good battle rhythm of seeing the terrain and enemy SITTEMP and the commander has a CP, how does the unit develop a good plan with so little time? Company commanders are usually trained to plan and prepare their own OPORDs, but the company team must plan in unison with platoon leaders and sergeants

at a minimum. Doing this reduces the briefing time, and it helps the commander be more detailed when he or she begins to forget things due to fatigue from combat operations. In addition, the commander can be in a battalion OPORD brief, write down a mission statement with commander's intent, and give it to a radio-telephone operator (RTO) to transmit to the company CP. The platoon leaders and sergeants can then begin planning a simple and logical plan. The commander will probably get back to the company about one hour prior to movement and at that time can add changes or clarify specifics in the plan, but the end state is that PLs will already have three fighting products:

1. Graphic control measures,
2. A target list worksheet, and
3. An execution matrix (at the company level).

How do they know the platoon leaders and sergeants will have time to create these fighting products? It should be easy if the analysis of the terrain and enemy has been shared with subordinate leaders. Subordinate leaders should not have a hard time planning against an enemy and terrain if they have good situational awareness. This recommendation can only work with a continuous cycle of terrain analysis, enemy SITTEMP, and a company CP. If the unit continually seeks information dominance of the battlefield and our Soldiers understand it as well, morale will increase and the unit will surely defeat the enemy.

In conclusion, TLP time management is the greatest mistake maneuver company commanders make at NTC. The company needs a CP; it is essential for planning. A CP does not necessarily need to be used during current operations, but it is the linchpin for continuous planning at the company level.

Commanders cannot conduct planning if they are the ones sharing the predictable reports and sustainment needs that are required by the battalion from the company. If these are handled routinely by an effective company CP, then leaders can focus on planning and preparation.

Next, maneuver leaders continually make the mistake of not conducting a continuous cycle of terrain analysis, enemy analysis, and enemy SITTEMP. The commander must begin this cycle to stay afloat in the fast and complicated pace of combat. The time spent conducting the modified IPB will pay dividends once a short-notice mission comes down the pipeline. As great leaders have always mentioned, "Never pick up the blue pen till the red pen is down!" In other words, there is no maneuver plan without an enemy to plan against. Even when conducting a movement to contact, units still need to have target reference points (TRPs) on potential enemy positions and a PLD to transition from movement to maneuver. Lastly, commanders need to create a plan that meets the SFADC COA screening criteria. This plan should also produce three fighting products (graphic control measures, target list worksheet, and company execution matrix) for platoon leaders.

A good battle rhythm of planning will win the day and create TLP time management in a fast-paced combat environment. The recommendations mentioned above need to be done during home-station training and validated prior to deploying to NTC or a combat zone. These recommendations, based in doctrine, are from observations of 10 Armor and Infantry

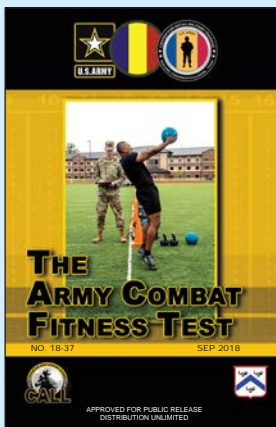


Photo by SGT DeUndra Brown

Soldiers assigned to Headquarters Company, 2nd Battalion, 198th Armored Regiment, Mississippi Army National Guard, plan for an attack on 29 May 2017 at Fort Irwin, CA.

companies. This information should help units create their training plan that make companies more lethal and ready for continuous combat operations.

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This handbook is a compilation of products developed by the Center for Initial Military Training (CIMT) in preparation for the Army-wide implementation of the Army Combat Fitness Test (ACFT). Refinements are expected as testing units provide feedback, but in the interim, this handbook provides commanders, leaders, and Soldiers with a guide to preparing for and administering the ACFT.

View the publication at:

<https://usacac.army.mil/sites/default/files/publications/18-37.pdf>

Demystifying Space:

How to Perform Better in the Space Domain

LTC COLEY D. TYLER

In a previous article, I introduced the role and importance of the space domain for maneuver professionals.¹ That article laid a foundation for what the space domain looks like at lower echelons to increase awareness of space implications and ask for greater involvement in shaping future space support to maneuver formations. The intent of this article is bridging the gap between the space domain, the operational environment, future force modernization, and current maneuver formations that require a higher level of space skills. The reality is that our Soldiers and formations cannot wait for the next big space program of record to provide overmatch against peer and near-peer adversaries. Being able to “fight tonight” requires addressing the problems of a denied, degraded, and disrupted space operational environment (D3SOE) in a contested, multi-domain extended battlefield environment against today’s threat (see Figure 1).

Space capabilities have no doubt greatly enhanced U.S. Army warfighting formations. However, over time, the U.S. Army has become critically dependent (as an example) upon positioning-, navigation-, and timing (PNT)-enabled equipment. Over-reliance on these enhanced capabilities is often to the

detriment of alternative methods of conducting navigation. U.S. Army Soldiers and formations must execute missions within the commander’s intent to achieve the desired end state from large-scale combat operations to counterinsurgency/counterterrorism and along the full spectrum of a D3SOE (from fully enabled to completely denied). Units must train at both ends of the spectrum, rapidly transition from one end to the other, and have different portions of the formation operating at different points simultaneously.

A great place to start understanding the strengths and weaknesses of space-based capabilities (not only friendly and adversary, but also allied, neutral, and commercial) are two short reads available from the Maneuver Center of Excellence (MCoE) and the U.S. Army Space and Missile Defense Command/Army Forces Strategic Command (USASMDC/ARSTRAT). The “Space Support to the Brigade Combat Team (BCT)” tri-fold and Graphic Training Aide (GTA) 40-01-001, *Army Space Training Strategy Home Station Training Reference Guide*, describe space support to operations, how to request space support, and D3SOE mitigation approaches.

The easiest gap to close in maintaining space overmatch

Figure 1 — D3SOE as a Condition of the Operational Environment²

(D3SOE increases the occurrence of or need for certain events [left] and impacts operations by decreasing formation efficiency [right])

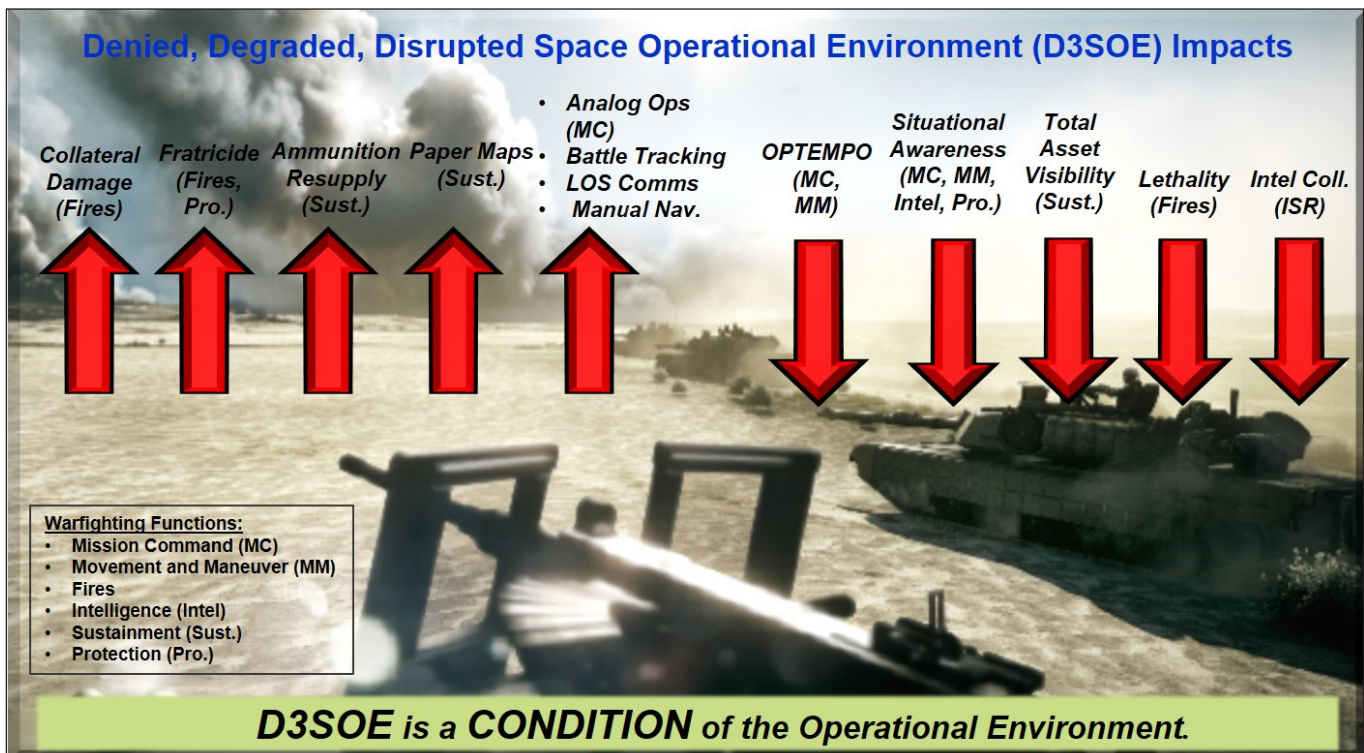




Photo by Markus Rauchenberger

A paratrooper assigned to the 173rd Airborne Brigade uses a Defense Advanced GPS Receiver (DAGR) during an exercise in Grafenwoehr, Germany, on 28 March 2014.

action. Platoons familiar with D3SOE and skilled in mitigation techniques would continue to operate in an analog mode (without turning off their DAGRs) until they regained the GPS signal. This course of action is not possible without completely understanding space support to multi-domain operations and individual equipment reliance on space capabilities. However, with that understanding, leaders could determine training and performance deficiencies as they relate to the accomplishment of the unit mission-essential tasks. Leaders can then address these deficiencies in their unit training plans.

The following training options developed by USASMDC/ARSTRAT are available to units to address the D3SOE problem set:

with peer and near-peer adversaries is the knowledge gap. Leaders cannot underestimate the importance of formations skilled in all domains on the future battlefield. A solid foundation of how space-based capabilities affect warfighting formations is the first step to developing a space domain skill set.

With this knowledge, operators and leaders can then assess and appreciate their equipment's space linkages. This is no small undertaking, but space enhancement is an ever-increasing equipment attribute that must be common knowledge to maximize effects while conducting cross-domain maneuver in a contested environment during large-scale combat operations. A typical BCT has more than 3,200 pieces of equipment enabled by PNT from space and more than 300 pieces of satellite communication-enabled equipment. What are the impacts to warfighting efficiency when an adversary targets one, more, or all of these systems in a D3SOE? Are commanders confident that their Soldiers and equipment will perform in a contested GPS environment? This is the environment of the future.

As an example, if a unit takes the time to encrypt their Defense Advanced GPS Receiver (DAGR), it will indicate when it is being jammed (see Figure 2). In the "Jammer Finder" mode, the DAGR will indicate the jamming signal strength. If a company commander intersected the reported jamming line of bearing of three platoons, the commander could determine a jammer location and take appropriate

1) The **Army Space Training Strategy (ASTS)** incorporates D3SOE instruction into the education systems for officers, warrant officers, and NCOs. The idea that formations receive knowledgeable and better-educated leaders from the beginning facilitates a decreased learning curve so leaders can spend more time focused on training Soldiers and their units.

2) There are space electives taught at the Command and General Staff College that lead to the 3Y-Army Space Cadre skill identifier. These courses are **A537 Space Orientation (Term 1)** and **A543 Space Operations (Term 2)**. This skill set in field grade officers, many of whom will directly influence training when they arrive on a staff, will serve a unit well for developing internal and external options to improve the space domain skill set. An additional option is sending Soldiers to the **Army Space Cadre Basic Course (ASCBC)** Phases 1 and 2. ASCBC is an Army Training Requirements and Resources

System (ATRRS) course (<https://www.atrrs.army.mil>) that is offered all around the globe via mobile training teams. The course code is 2G-SI/ASI3Y/043-ASI3Y (MC) and the school code is 129.

ASCBC is a space fundamentals course focused on understanding space-based capabilities for planning, preparing, and executing unified land operations. Graduates of this course can request the 3Y skill identifier. This course does not entail Soldiers taking on additional obligations, but the education

Figure 2 — Example Defense Advanced GPS Receiver (DAGR) Screen



received will help them better perform their already assigned duties and responsibilities and understand the impacts of peer and near-peer adversaries in a D3SOE.

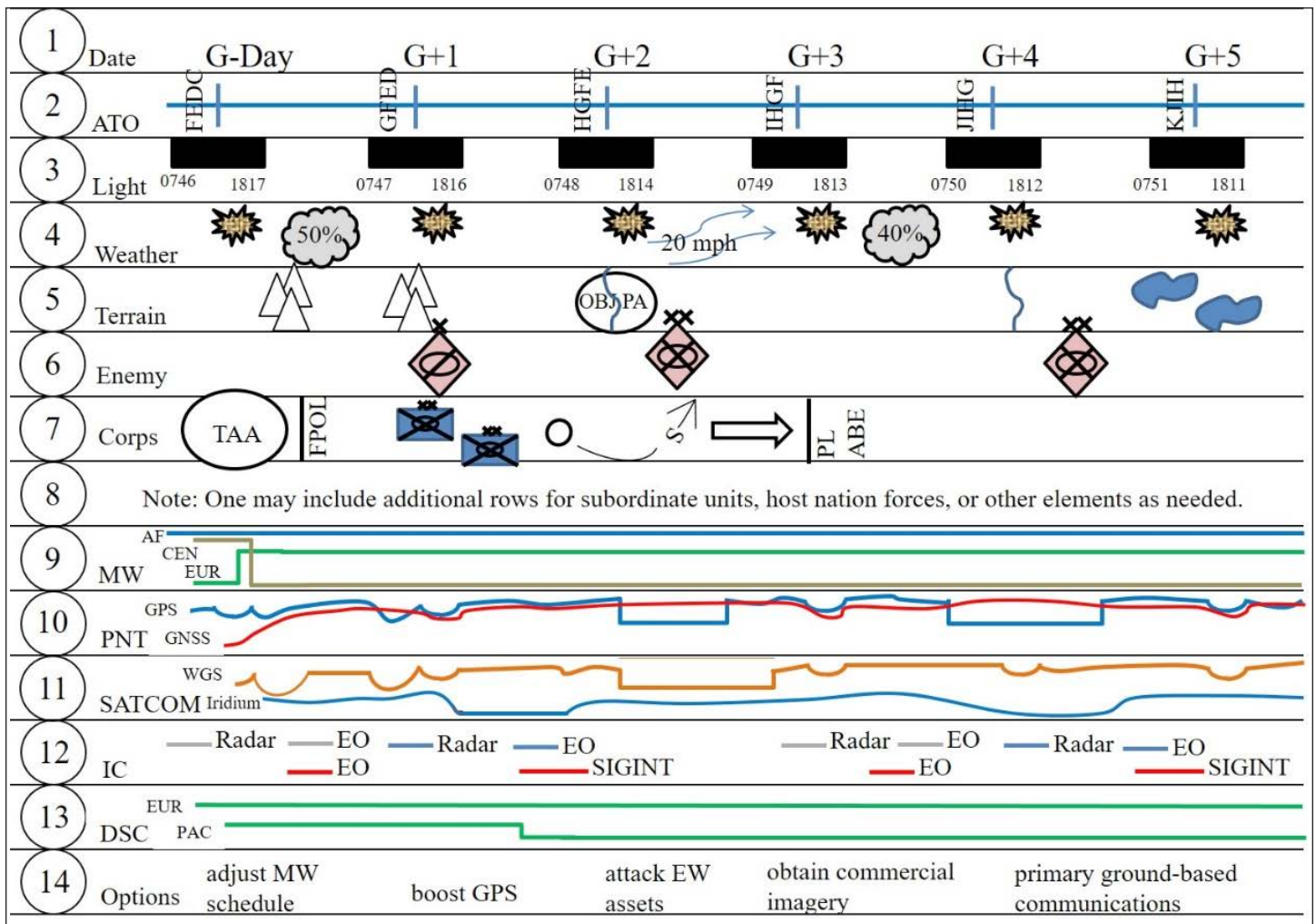
The previous opportunities support the institutional line of effort (LOE) of the ASTS in order “to increase space knowledge... through institutional training and education.”³ Leaders can also develop formations with multi-domain skill sets through the ASTS operational LOE by home-station training and combat training center (CTC) rotations “to exploit space capabilities and fight in contested environments.”⁴ The operational LOE is a two-part concept. (Home-station training is provided by USASMDC/ARSTRAT G37 Training, Readiness and Exercise, Army Space Integration Branch, and consists of crawl and walk phases. USASMDC/ARSTRAT provides the training at no cost to units 90-180 days prior to a CTC rotation or deployment.) Units conduct train-the-trainer sessions, classroom instruction, and field-training exercises complete with space kit training. Space Kit 3 replicates GPS jamming on handheld DAGRs, and Space Kit 4 replicates threat interference on satellite communication. The branch supports the run phase at CTC rotations by creating a contested space operational environment, providing space-

experienced observer-controller-trainers and opposing forces or “Army space aggressors.” You can find lessons learned from the National Training Center at <https://www.milsuite.mil/book/groups/ntc-operations-group>. Search “D3SOE” or “space” in the search box.

Leveraging ASTS institutional and operational LOE support, unit leaders can greatly decrease the space knowledge gap and better prepare their formations to operate in a D3SOE. Much like with fire or air support, space considerations will become second nature while conducting the military decision-making process, and planning can succeed across the full spectrum of a D3SOE. The U.S. Army School of Advanced Military Studies is currently experimenting with a visualization tool depicted in Figure 3. The intent is to aid in operationalizing space effects in a staff’s conceptual approach for better shared understanding in relation to operational art and the achievement of “strategic objectives, in whole or in part, through the arrangement of tactical actions in time, space, and purpose.” Rows 9 through 13 depict fluctuations or changes in space capability support based upon multiple factors such as weather, terrain, and enemy actions. Access to or support received from different space capabilities can increase or decrease throughout an

Figure 3 — Space Visualization Tool⁵

(Note: Intelligence community [IC] in this example is synonymous with Intelligence, Surveillance, and Reconnaissance [ISR])



operation, hence the rise and fall of space force enhancement indicator lines over time. In due course, the staff will address these considerations in their detailed planning.

One of many possible examples could be to include a well-thought-out and comprehensive PACER (primary, alternate, contingency, emergency, and runner) plan in the command and signal paragraph from the standard U.S. Army operation order format. A good case study to look at here is the conflict in the Ukraine. As emphasized by both the U.S. Army Training and Doctrine Command and MCoE commanding generals at the 2017 Maneuver Warfighter Conference, leaders must always be thinking about and planning for operations in all domains (Cross-Domain Maneuver — one of the components of the solution in the Army Functional Concept for Movement and Maneuver).

Ultimately, there is nothing new in this article with respect to traditional or enduring ways of war, but we must reassess for the changing environment of waging war. One of the evolving areas is the increased acceptance of affecting the space domain during conflict with resulting impacts in other domains. There is nothing mysterious about space. In essence, what was old is new again in terms of how the Army will shoot, move, and communicate in the spectrum of large-scale combat operations to counterinsurgency/counterterrorism operations. Obviously, what to do is not hard to figure out, but the how to do it is a pretty serious endeavor. The bottom line is there is no escaping the problem of a D3SOE. It will remain a fixture of having to “fight tonight” and of the future battlefield.

The first option is to assume that formations will operate in an uncontested environment, which all indicators and warnings show will prove disastrous in almost all cases. A second option is to plan to fight contested and prepare U.S. Army Soldiers and formations for what is to come even if it does not happen on the current watch. Peer and near-peer adversaries are watching and studying every move. Adversaries are actively

seeking ways to degrade space capabilities and level the playing field. The U.S. Army is only as strong as its weakest link. The challenge is not be the leader who weakens the team due to a failure to train for what lies ahead in a D3SOE.

For additional space professional reading, the Army Space and Missile Defense School and Doctrine Center maintains a repository of useful material (online access, DVDs, and hardcopy), which they provide to Maneuver Pre-Command Course (MPCC) students. This is a valuable addition to any leader’s “kit bag” from the platoon to brigade level. To request material, contact the MCoE space integration officer or the Army Space Training and Integration Branch.

Notes

¹ LTC Coley D. Tyler, “Leveraging Space: An Examination of the Ultimate High Ground at Echelons Brigade and Below,” *Infantry Magazine*, July-September 2017, [http://www.benning.army.mil/infantry/magazine/issues/2017/JUL-SEP/pdf/3\)PF1-Tyler-Space.pdf](http://www.benning.army.mil/infantry/magazine/issues/2017/JUL-SEP/pdf/3)PF1-Tyler-Space.pdf).

² Denied, degraded, and disrupted space operational environment (D3SOE) Maneuver Pre-Command Course brief.

³ 2013 Army Space Training Strategy.

⁴ Ibid.

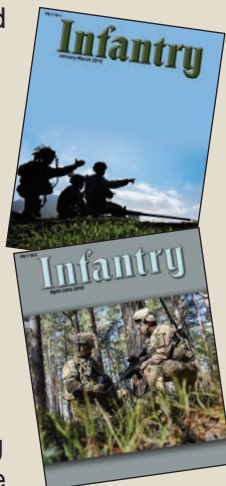
⁵ Space Visualization Tool was developed by MAJ Jerry V. Drew II, U.S. Army Space Operations Officer, School of Advanced Military Studies.

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Infantry Battalion S4 Operations in Garrison

MAJ JAMES B. PRISOCK
CPT JEFFREY W. NIELSEN

The roles of the S4 section during combat operations and in the field are well documented for any Infantryman to read and understand.¹ However, the majority of junior captains and promotable first lieutenants assigned as an S4 officer-in-charge (OIC) will struggle to systemize the diverse and technical duties that fall under battalion sustainment while in garrison. It is far more intuitive to physically request and move supplies than it is to digitally forecast and manage a budget.

Based on the experience of the 1st Battalion, 325th Airborne Infantry Regiment during 11 months of force generation before and after a nine-month deployment in support of Operation Inherent Resolve, this article is a technical primer and proposed operational framework within the modified table of organization and equipment (MTOE) for infantry officers serving as the S4 OIC. While an S4 is explicitly responsible “for logistics planning and operations, supply, maintenance, transportation, services, field services, distribution, and operational contract support,” their duties can be informally summarized as advising the battalion commander on anything that affects the battalion’s money or combat power.²

S4 Composition by MTOE

The FY2018 MTOE for an infantry battalion within an infantry brigade combat team authorizes five Soldiers for the sustainment section. These Soldiers and their roles within this framework are the S4 OIC (O-3, 11A) with duties as the sustainment planner and billing official (BO); the senior supply sergeant (E-7, 92Y) with duties as the S4 NCOIC, supervisor of all property book activity, manager for requisition, and alternate billing official (ABO); one supply specialist (E-4, 92Y) with duties as the S4 training resources coordination meeting

(TRCM) representative; one supply specialist (E-3, 92Y) with duties as the Defense Travel System (DTS) clerk and battalion Government Purchase Card (GPC) holder; and one supply specialist (E-3, 92Y) as the Government Travel Card (GTC) clerk. The following sections are ordered by which topics a new S4 OIC will have to master first.

Property Management

All property within the infantry battalion is hand receipted from the brigade or installation Property Book Office’s (PBO’s) accountable officer to the company commanders as primary hand receipt holders (PHRHs). All property management within the battalion is fundamentally managed within each company’s Commander’s Supply Discipline Program (CSDP), but the S4 shop is critical in making sure companies understand their responsibilities and perform them well.³ While most PBOs will communicate directly with PHRHs for routine property tasks, it is essential that the S4 NCOIC aggressively assists both the PBO and the companies in conducting inventories, maintaining property accountability, and executing directives. The S4 OIC should provide administrative oversight and assist commanders in understanding the effects of their property activities.

The decisive point for property management is the proper conduct of inventories: don’t sign for something that you haven’t touched. It is essential that the outgoing PHRH, incoming PHRH, company supply sergeant, and sub-hand receipt holder are all physically present for the inventory and that they:

- Conduct the inventory off an appropriate training manual or component listing;
- Complete quality DA Form 2062s before putting the property back in storage; and

- Ensure that the company supply sergeant digitally assigns that property to the sub-hand receipt holder within the Global Combat Support System (G-Army).

The S4 does not need a representative at each inventory, but the S4 NCOIC must ensure that companies are fully trained on inventory procedures beforehand if he or she will

Table 1 — Battalion Sustainment Roles

	Log Plans	Property	Requisition	Maintenance	Mobility	TRCM	TDY
S4 OIC	X	O	BO	O	X	O	BO
S4 NCOIC		/	ABO			/	ABO
92Y TRCM			O			X	
92Y DTS						Alt	X
92Y GPC			X				/
Companies	X	X	X	X	X	X	X

Advise Companies: O
Manage Companies: /
Personally Execute: X

not be physically present to assist. One of the easiest ways for the S4 NCOIC to spot-check the companies is to query the commanders' storage location hand receipts on G-Army and confirm imminent property moves for each item listed.

Even after property has been issued down by the company commander, the continuing accountability of that property remains a company responsibility. NCOs and Soldiers will already be aware of some best practices in physically securing their property as end-users, but the S4 NCOIC needs to assist the companies by ensuring the supply sergeants retain accurate and well-organized physical copies of inventory paperwork. The most important documents are: signed G-Army hand receipts; signed DA Form 2062s as hand receipts; signed DA Form 2062s as shortage annexes; and PHRH-signed component listings or training manuals that were used to validate shortage annexes. A successful CSDP will also keep copies with each sub-hand receipt holder and then produce those copies at each subsequent monthly, cyclic, and change-of-command inventory to make sure all document changes are adding up. Good documentation is the first line of defense against property loss; it is also the first avenue of approach when something does go missing.

Accounting for lost property is fully covered in Chapter 13 of Army Regulation (AR) 735-5, *Property Accountability Properties*. Investigations generally stay as a company responsibility, but the S4 OIC and NCOIC should both be experts on using the Army Financial Liability Investigation of Property Loss (FLIPL) Tracker (AFT) website and coordinate directly with their brigade legal office and PBO in order to assist the companies in meeting their administrative suspenses.

Even within a successful CSDP, S4 shops have to manage directives. Directives are orders from a higher echelon to either give or receive property book items and usually have one of three purposes: to correct discrepancies between equipment on hand and a unit's MTOE; to issue new equipment; or to dispose of old equipment. While company supply sergeants are responsible for physically executing directives via DD Form 1348 and DA Form 3161, the S4 NCOIC should facilitate directives by communicating with PBO and the brigade S4 NCOIC to contact gaining or receiving parallel units, disseminate coordinating instructions for issue, integrate with local Defense Logistics Agency (DLA) offices for turn-in procedures, and report directives completion within the Logistics Information Warehouse (LIW) website's Decision Support Tool (DST) application. It is essential that the S4 OIC retain full visibility of pending directives in order to provide commanders with an understanding of how directives will affect their combat power: Don't wait until after the Mortar Training and Evaluation Program (MORTEP) to order those new 81mm

sights. Good forecasting will allow commanders to synchronize equipment changes with their training calendar, and provide critical feedback to the S4 OIC and PBO if a pending directive needs to be reconsidered to support company missions.

Requisition

The Army, through PBO and directives, will provide an infantry battalion with the majority of its property book items. It is an S4 OIC's responsibility to ensure that the battalion, as ordered by commanders, requisitions all other commodities and services either through G-Army, the battalion's GPC, or a government contract. Requisition is a broad and complicated function, but it is one of the primary ways a successful S4 can provide combat power to the battalion.

The largest requisition source for an infantry battalion is G-Army. Each September, the brigade finance officer (S8) will provide the battalions with the brigade commander's spending guidance, glide path, and budget for that year. It is then the S4 OIC's responsibility to integrate the battalion commander's guidance and disseminate a more refined budget to the companies. Companies perform most of the battalion's requisitions for Class II and Class IX as routine functions against internal requirements and within higher echelons' spending guidance. When commanders identify a valid requirement worthy of their funds and within budget guidance, their supply clerks will digitally order those items within G-Army. That order is then processed by the battalion and brigade combat team to pay the vendor out of the General Fund Enterprise Business System (GFEBs) to allow the physical movement of the items. The items move from the manufacturer to DLA and from DLA to a brigade Supply Support Activity (SSA) where the ordering unit will physically pick up their order.

An important design feature of G-Army is that S4 shops are not procedurally integrated into ordering and must instead take individual initiative to oversee or expedite orders. To prevent erroneous purchases, the S4 OIC and S4 NCOIC should alternate checking the entire battalion's daily orders within G-Army. The S4 OIC should pay particular attention to each company's cumulative expenditure for the fiscal year while the S4 NCOIC should conduct physical spot checks of each supply cage against that company's orders to ensure that supplies are being appropriately forecasted, received, and consumed.

The most powerful role of the S4 within G-Army ordering is the ability to expedite mission-essential items. The S4 OIC should communicate directly with the PBO and brigade's SSA accountable officer in order to gain contact with DLA customer support and parallel SSAs. A successful S4 OIC or NCOIC can identify any excess items available for transfer from a nearby unit to cut down order lead times. If an item is delayed anywhere along the DLA logistics chain, the S4 OIC can still communicate with them to facilitate manufacturer outreach and delivery methods. DLA can tailor the truck, vessel, or flight path to a unit's individual needs. Successful G-Army requisition depends on S4 shops training the companies in executing their routine supply

Table 2 — FLIPL Authorities by Total Loss

	Appointing Authority	Approving Authority
< \$5,000	O-5	O-6
< \$100,000	O-6	First general officer (GO)
≥ \$100,000	First GO	First GO

	Start of Cycle	Ordering	Funding	Delivery	Pick Up	Required Date
The Company	Identify the need and confirm that what you're ordering will meet that need	Confirm ordering within guidance and execute in MB21	Check progress in ZPROSTAT	Check progress in ZPROSTAT	Pick it up from the SSA	Inventory IAW CSDP and hand receipt to end user
The S4	Disseminate BCT/BN spending guidance and spend plan	Confirm ordering within guidance	Check progress in ZPROSTAT	Expedite through DLA or parallel SSAs as necessary		
The Funds	Sitting in GFEBS	Sitting in GFEBS	Obligated by the S8 in ZPARK to the vendor	Spent		
The Stuff	Sitting with vendor	Sitting with vendor	Sitting with vendor	Moves from the vendor to DLA, and then from DLA to the SSA	Sitting at SSA	

Table 3 — G-Army Ordering by Business Code (T-Codes)

tasks effectively and then focusing the battalion's resources on high-priority or non-standard items.

An alternate method for requisitioning Class II — and the primary method for purchasing services for the infantry battalion — is the GPC. Just as with G-Army, funds for the GPC exist digitally within GFEBS. Unlike G-Army, the S4 OIC or S4 NCOIC, as the BO and ABO respectively, must generate a purchase requisition (PR) in GFEBS prior to each month's GPC billing cycle. Once the PR is approved by S8 within GFEBS, the battalion is free to generate requirements, receive commander approval, and execute purchases within installation Defense Finance Accounting Service (DFAS) regulations. While the GPC holder is the only one allowed to physically "swipe" the card or pay over the phone, the purchase's end-user should be responsible for confirming the exact item and vendor; the best Soldier to pick something off the shelf is the same one whose combat effectiveness depends on the item. At the end of each month's billing cycle, the GPC holder, BO, and ABO are each directly responsible for matching and approving every single purchase within the Access US Bank website. S4 OICs have to micromanage these administrative tasks each month or risk getting their account shut off by DFAS.

The GPC is uniquely valuable to the infantry battalion. The GPC can be used to purchase almost any non-standard item or service if coordinated by the BO or ABO directly with their local DFAS office, and it is the fastest method for requisitioning mission-critical goods or services valued at less than \$3,500.⁴ Successful S4 shops will effectively reserve their battalion's GPC funds for essential purchases by exhausting other requisition methods first.

The final requisition method available to an infantry battalion is contracting. Items and services that lack a national item identification number (NIIN), cost more than \$3,500, or are recurring mission requirements are examples of requisitions that would have to be contracted. The Army contracting process is dependent on local finance unit SOPs, but the S4 OIC should personally manage each tentative contract to ensure that it meets all administrative requirements as communicated by S8.

Maintenance

The S4's roles within maintenance are the least defined because the infantry battalion already has a maintenance officer and section billeted against the problem. The S4 OIC assists with maintenance at the intersection of requisition and property management by ensuring that commanders understand the effects of maintenance on their combat power while expediting any mission-critical Class IX requisitions. The battalion's maintenance officer will already manage Class IX ordering, the equipment status report, mandatory modification orders, and the battalion's relationship with the brigade logistics support team (BLST) and maintenance chief. The S4 OIC should assist the companies by integrating his or her personal knowledge of the budget, directives, and future sustainment

Table 4 — Key G-Army Business Code (T-Codes)

	Use	Frequency
MM03	Any user checks the admin data for a desired item	With every order
MB21	Companies enter orders with necessary admin data	With every order
ZPROSTAT	Companies track their own orders while S4 inspects for budget compliance	Daily
MMBE	Companies or S4 check parallel SSAs for excess items to "walk-through" rather than order	Before battalion maintenance meeting
ME5A	S4 checks the battalion's orders pending ZPARK approval because ZPARK is restricted to S8 access	Before battalion budget meeting

	Request	Generated By	Forward To	Confirmed By
Trans (Buses)	D-60	Companies	Installation through SPO	Installation D-30
Trans (MTVs)	D-60	Companies	Support Brigade through SPO	Support Brigade D-30
Chow (MRE)	D-30	Companies	SSMO through BCT Food Service Tech	DFAC NCOIC D-7
Chow (DFAC)	D-30	Companies	DIV Food Service Tech through BCT Food Service Tech	DFAC NCOIC D-7
Chow (Field Kitchen)	D-90	TRCM Rep	FSC Commander through S-4 OIC	FSC Commander D-45

Table 5 — S4 TRCM Representative Responsibilities

operations to synchronize maintenance operations with the training calendar.

In coordination with the forward support company (FSC) commander, the S4 OIC will generally maintain visibility on maintenance in order to add value as the BO and sustainment planner rather than directly managing maintenance. At the end of the day, the S4 OIC must always be prepared to advise the battalion commander on the unit's combat power.

Mobility

Within infantry battalion S4 operations, mobility is any movement of personnel or equipment that requires the coordination of ground, air, or naval assets through the brigade mobility technician. Because of national physical limitations and the dollar-costs involved, mobility assets can take several months to coordinate through the installation transportation office up to Transportation Command. Mobility operations will only be successful if companies can understand their requirements early enough to provide the S4 OIC with accurate personnel and equipment movement numbers.

The S4 OIC is responsible for planning mobility operations and managing their execution through the companies' unit movement officers (UMOs). Upon receipt of a mobility mission, it is essential that the S4 OIC assist the companies involved in validating the admin data on their organizational equipment listing (OEL) and generating a tentative unit deployment list (UDL) against their anticipated mission requirements. Company UMOs are responsible for digitally generating their UDLs within the Transportation Coordinators' - Automated Information for Movements System (TC-AIMS), while the S4 OIC is responsible for providing UDLs to the brigade mobility section. The brigade mobility section is then responsible for coordinating with the installation transportation office for the physical assets necessary to drive, rail, lift, or float the battalion's personnel and equipment, but brigade will generally rely on the S4 OIC to finalize the plan for actual deployment and receipt activities. The S4 OIC should disseminate this plan as early as possible to allow companies maximum time to complete bumper-number swaps, DA Form 1750s, hazardous material declarations,

container certification, and rolling stock serviceability validation.

Training Resources

The majority of Infantry officers are already familiar with their battalion's TRCM and can effectively manage the S4 shop's role through the S4 92Y TRCM rep. Successful TRCM reps will:

- Track requirements upon notification,
- Assist companies in completing request forms,
- Coordinate directly with the brigade support office

(SPO) for transportation confirmation,

- Coordinate directly with the FSC field feeding section NCOIC and Subsistence Supply Management Office (SSMO) for Class I confirmation, and

- Maintain direct communication with the brigade food service technician for any emergent requirements.

Temporary Duty

The majority of Infantry officers and NCOs are already familiar with the Defense Travel System (DTS) and understand its proper use as an individual responsibility. The GTC clerk is directly responsible for helping travelling Soldiers apply for a Government Travel Card (GTC) within the Citi Bank website. The DTS clerk is directly responsible for helping each travelling Soldier create their authorization in DTS. The DTS clerk is also responsible for "15-level" approval of all travel authorizations and vouchers. The BO and ABO are directly responsible for "25-level" approval of all travel authorizations and vouchers within DTS. The S4 NCOIC must assist companies in ensuring that their Soldiers get paid and then pay off their GTCs by periodically providing a delinquency list to the first sergeants.

Key Products

The S4 OIC and NCOIC should maintain digital and physical copies of the following products on hand: a FLIPL tracker specifying each investigation's current administrative gate; a directives tracker specifying each company's equipment gains and losses; a battalion-wide budget specifying dollar amounts spent and remaining by class of supply and source; a high-priority requisition tracker in case of emergently available funds; a combat slant specifying each company's weapon systems and rolling stock by serviceability; a battalion-consolidated UDL organized by combat power generation; an S4 TRCM tracker; a DTS voucher delinquency tracker; and a GTC payment delinquency tracker.

Recommendations

Battalions can improve sustainment effectiveness by making two changes from common S4 billeting. First, battalions tend to assign a first lieutenant as the S4 OIC. Instead, units should

	Log Plans	Property	Requisition	Maintenance	Mobility	TRCM	TDY
S4 OIC	X	O	O	O	O		
A/S4		O	BO		X	O	BO
S4 NCOIC		/	ABO			/	ABO
11B TRCM			O			X	X
92Y GPC			X			Alt	/
Companies	X	X	X	X	X	X	X

Advise Companies: O
 Manage Companies: /
 Personally Execute: X

Table 6 — Recommended Role Changes to Allow Greater Logistics Planning

assign a pre-command captain as the S4 OIC and one 11-series second or first lieutenant as the assistant S4. This allows the S4 OIC to focus on sustainment planning and logistics during the operations process without degrading S3 capabilities, all while the A/S-4 maintains BO, DTS, and G-Army longevity. Second, battalions tend to be below MTOE on supply specialists. To mitigate this, units should assign an assistant operations sergeant (11B, E-5) from the operations section to the S4 as the combined TRCM rep and GTC clerk. This change provides an infantry sergeant with valuable sustainment and administrative experience while providing an additional supply specialist to the companies.

Notes

¹ Army Techniques Publication (ATP) 3-21.20, *Infantry Battalion*, Appendix H.

² Ibid, 1-128.
³ Army Regulation (AR) 735-5, *Property Accountability Policies*, 2-8.
⁴ Federal Acquisition Regulation Part 13.301.

Other References

AR 725-50, *Requisitioning, Receipt, and Issue System*.
 Army Doctrine Publication 4-0, *Sustainment*.

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The authors would like to thank LTC Sean McGee, the previous commander of 1-325 AIR and current commander of the 1st Battalion, 75th Ranger Regiment, for his mentorship and advice during the production of this article.



Photo courtesy of authors

A Soldier with the 1st Battalion, 325th Airborne Infantry Regiment conducts redeployment activities from Fort Polk, LA. Redeployment matches battalion-level planning with installation-level funds and national-level assets.

What Should the Brigade Be Doing Right Now?

Deconstructing the ‘Brigade Fight’

COL CURTIS A. BUZZARD
COL JACOB J. LARKOWICH
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LTC TRAVIS D. SHAIN
MAJ KRISTOPHER T. GILLETT
MAJ DURWARD E. JOHNSON
MAJ JARED N. FERGUSON

“Army leaders are responsible for clearly articulating their concept of operations in time, space, purpose, and resources.”

— Army Doctrine Reference Publication (ADRP) 3-0,
Operations, 4-20

INTRODUCTION

Throughout one’s career, it is likely you have heard this timeless saying: “Battles are won at the company and below level.” Clearly, training in our Army is largely focused at this echelon and rightly so; however, this is not an excuse to not train staffs at the battalion and brigade level. At the Joint Multinational Readiness Center (JMRC) in Germany, we often observe very good companies and platoons, but we do not necessarily observe brigade and battalion staffs properly influencing the enemy prior to contact or fully enabling companies to exercise their missions and achieve their purpose. In particular, the “brigade fight” is often misunderstood, not planned or executed, and the enemy maneuvers unimpeded to first contact with companies.¹ In all fairness, we have not had to fight this way in some time. However, given the nature of the current and future operating environment and emerging enemy tactics, techniques, and procedures (TTPs), brigades must influence the enemy prior to contact with companies and then continue to do so as long as the enemy remains in the brigade’s assigned area — they must fully leverage all brigade assets and set conditions for their companies’ success. The intent of this article is to define the brigade fight, provide a framework for simplifying its complexity, and share some best practices.

17 Years of Conditioning

“Today, nearly every mid-grade leader in the U.S. Army and Marine Corps has significant experience battling insurgents and conducting combat operations in complex and demanding irregular warfare environments. Yet, virtually none of those leaders have been under massive, sustained artillery, mortar, or rocket fire. None have been attacked with precision strikes from guided missiles or bombs. No Army or Marine unit was struck with chemical weapons during the recent wars, or faced fallout from a nuclear blast. Few have dealt with jamming or serious disruption of tactical communications networks, and none have faced air attacks from enemy fighters, cruise missiles, or drones.”

— LTG (Retired) David W. Barno and
Dr. Nora Bensahel²

Over the better part of the last two decades, the Army and its leaders engaged in counterinsurgency (COIN) operations, and much of our Army’s focus was below the brigade level. This focus deprived a generation of mid-career leaders the experience of fighting at the brigade and above level. The junior leaders who entered the Army as operations in Afghanistan and Iraq were at their height are the field grade staffs and brigade-level leaders of today. The growth and experience of multiple deployments and years of combat were critical, but we must now relearn some of the best practices of fighting at the brigade and above level.

While relearning how to fight at these levels, U.S. forces will need to operate as part of a joint and combined force to include multinational alliances and coalitions.³ At JMRC, our focus is to train U.S. forces, our allies, and partners the way we will fight as an integrated force. All exercises are multinational and are designed to replicate operational realities. Based on our observations of U.S., allied, and partnered brigades, the commander of the Operations Group and senior observer-coach-trainers (OCTs) developed a definition and framework for understanding the brigade fight.

DEFINING THE BRIGADE FIGHT

Where Brigades Fit

Brigade combat teams are the Army’s primary tactical fighting formation for the near future.⁴ By design, they are the first echelon organized to conduct decisive action as part of unified land operations as well as the emerging concept of cross-domain maneuver.⁵ Decisive action has evolved from the linear concept of massing combat power at a specific time and place to “the continuous, simultaneous combinations of offensive, defensive, and stability or defense support of civil authorities’ tasks.”⁶ As the Army’s primary combined arms, close combat force, brigades maneuver against, close with, and destroy the enemy by seizing and occupying decisive terrain, exerting constant pressure, and breaking the enemy’s will to fight.⁷

At the tactical level of war, brigades execute battles and engagements.⁸ Divisions typically leave the details of executing battles and engagements to brigade commanders. In its role as a tactical headquarters, the division shapes operations for subordinate brigades; resources them for missions;

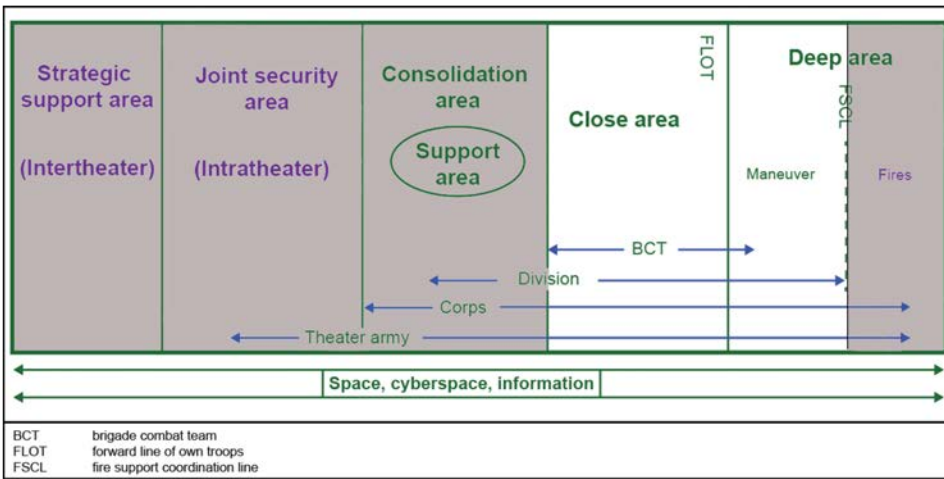


Figure 1 — Corps Area of Operations Within a Theater of Operations⁹

and then coordinates, synchronizes, and sequences their operations in time and space.¹⁰ In turn, brigades prepare to act semi-independently to develop situational understanding of the operational environment, gain multiple positions of advantage across multiple domains, and consolidate gains to achieve objectives.¹¹ While subordinate battalions focus on specific tactical tasks tied to a specific offensive, defensive, or stability operation, the brigade integrates sufficient mobility, firepower, protection, intelligence, mission command, and sustainment capabilities across the formation to shape the fight, manage transitions, sustain operations, and prepare for the next phase. Using the deep, close, support, and consolidation area operational framework, brigades continuously and simultaneously influence each of these areas within their area of operations — shape the deep fight, enable the close and support fight, and manage transitions.

What Should the Brigade Be Doing Right Now?

To a much greater extent than at lower echelons, brigades engage in multiple staff activities simultaneously to achieve success. In common parlance, Army leaders generally refer to this as prosecuting the brigade fight. Army doctrine offers instructive language to scope the brigade fight:

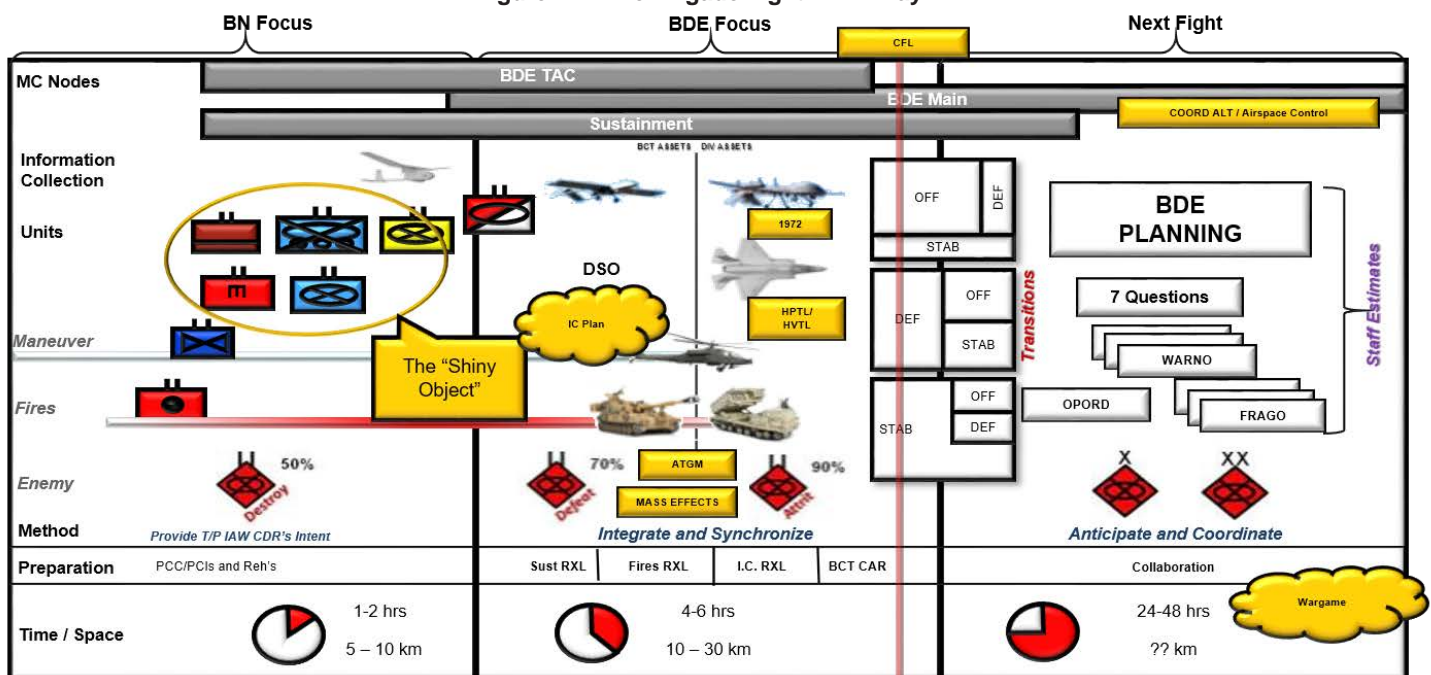
“The division close area is primarily where brigades operate. Brigades focus on reconnaissance and security, defending areas, and securing or seizing objectives... Weapon ranges, both direct and indirect, and the mobility of formations define the characteristics of the close area.”¹²

Field Manual 3-0, *Operations*, visually depicts the close area where brigades operate in the following manner, indicated by the non-shaded portion of Figure 1.¹³

The visual depiction of a physical operational framework is deceptively simple given its sole focus on physical aspects — geography, terrain, weapons ranges, and enemy locations. The broader operational framework may include what assets are allocated to each echelon within a brigade, what elements of the staff are responsible for planning various phases of an operation, and what effects a commander wants to have on an enemy across multiple domains in time and space.¹⁴

The complexity of the brigade fight (JMRC version depicted below) can rapidly overwhelm the brigade staff. This is especially true if we fail to leverage all of the staff’s capabilities against the problem set. The capabilities available

Figure 2 — The Brigade Fight — “A Way”¹⁵



to contemporary brigades and breadth of processes the staff must navigate can be simplified into three general areas:

- **ENABLE** subordinate battalions with actual assets or with capabilities that exist only at the brigade level and above;
- **FIGHT**, defined as achieving effects on an enemy force using the decide, detect, deliver, and assess (D3A) or other targeting construct in between the forward line of troops (FLOT) and as far as the division fire support coordination line (FSCL);¹⁶ and
- **MANAGE TRANSITIONS** for the brigade as a whole by applying continuous pressure to an enemy even as subordinate battalions transition between the offense and the defense or conduct consolidation activities, and in support of subordinate units leveraging the weight of the brigade’s plans staff to facilitate rapid transitions by those subordinate units.

A number of professional resources exist addressing how brigades fight, with particular attention given to the brigade’s deep fight. While this article addresses trends and recommendations for prosecuting the brigade’s deep fight, the broader aim is to offer a more holistic perspective. Effective brigades continuously enable subordinate battalions from reception, staging, onward movement, and integration (RSOI) to execution of large-scale combat operations and then into a stabilization phase. Simultaneously, those brigades achieve effects on or fight the enemy with the ultimate goal of leaving subordinate formations with nothing to do in the close fight. Throughout, brigade staffs continuously manage transitions to facilitate “rapid decision making to exploit opportunities.”¹⁷

ENABLING SUBORDINATE UNITS

Brigades often equate enabling subordinate units as simply providing enablers or establishing command relationships with brigade assets. In some cases, enabling equates to retaining

assets at the brigade level to achieve the benefits of mass.

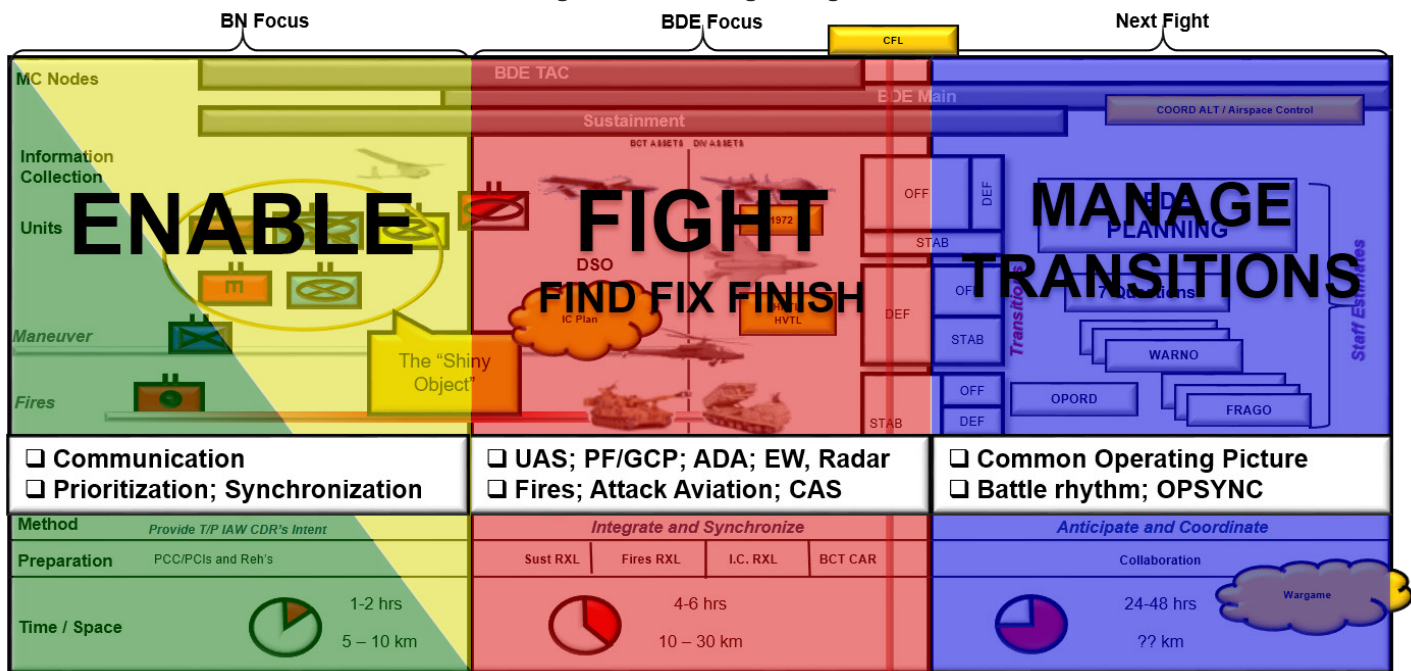
Brigade planners and the current operations integration cell (COIC) typically focus on the “shiny object” and rarely set conditions for enabling battalion success.¹⁹ Often, the enemy main body is first identified when infantry or armor battalions make first contact. Naturally, after almost two decades of conditioning, brigades immediately shift all assets in support of the battalion. Brigades are rarely observed conducting successful shaping operations.²⁰ At the same time, little to no attention is given to the support and consolidation areas as enemy forces disrupt these areas. Additionally, brigades typically task organize brigade-level assets to battalions. Potential examples of how brigades can enable battalions include intelligence analysis, air defense and airspace coordination, and sustainment. Brigades can also offer unique capabilities such as military police (for security and detainee operations) and chemical reconnaissance.

Perhaps self-evident but difficult in execution, the best way to enable battalions is for the brigade to achieve the effects it says it will. Specifically, the brigade should focus on degrading or destroying the enemy’s enabling capabilities — aviation, air defense, artillery, electronic attack, special purpose forces — and to some extent, a portion of their maneuver forces.

PROSECUTING THE DEEP FIGHT

A brigade’s focus on the deep fight creates necessary conditions for subordinates to succeed in the close fight. The deep area is defined as the portion of the commander’s area of operations that is not assigned to a subordinate.²¹ The brigade focuses on “preventing uncommitted enemy forces from being committed in a coherent manner.”²² Commanders set the conditions by diverting, disrupting, delaying, or destroying enemy forces with multiple forms of contact in the deep area. Capabilities include (but are not limited to) artillery,

Figure 3 — The Brigade Fight¹⁸



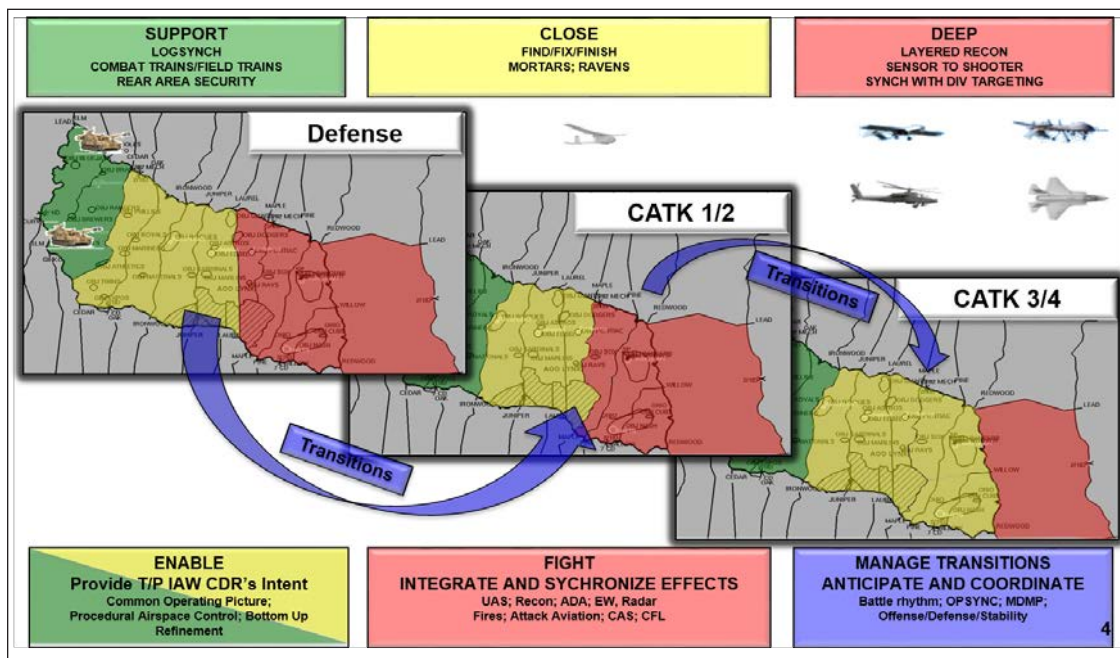


Figure 4 — The Deep Fight

attack aviation, air assault raids, information operations, and electromagnetic activities. Commanders and staff must also consider additional capabilities present from higher echelons to support nonlethal and lethal engagements in the deep area. Engaged staffs will explore numerous ways to engage the enemy within the multi-domain environment that lack range constraints, to include cyberspace or space operations. The deep area is not static and continues to shift based on the type of operation along with the phases of the operation.

Visually depicting the physical battlefield framework can assist staffs in federating their efforts to ensure the brigade remains focused on the deep fight, enabling battalions in the close fight and managing transitions to the next phase of the operation.

Typically for both the offense and defense, brigades should focus the deep fight on destroying high-payoff targets (HPTs), disrupting enemy maneuver in depth, and disrupting enemy command and control at critical times. The staff can focus on two simple questions when focusing on what to attack of the enemy:

- 1) Are we denying the enemy the initiative, and
- 2) Are we limiting the enemy commander's decision-making ability or options?²³

At JMRC, units identify what they want to target in the deep fight; however, most units fail to identify how much of the enemy they need to destroy in order for the close fight to be successful.²⁴

During the military decision-making process (MDMP), particularly during course-of-action development, brigade staffs identify the exact number of the enemy to achieve effects on and then where and when to apply those effects. For example, a brigade deep fight area can have an attrition line where an assessment is conducted on whether the brigade was

successful. If not, then the brigade may have a trigger or decision point to reallocate combat power to the close fight to ensure success. As a tactical illustration, a brigade in the defense conducted a deliberate attack with attack aviation in the deep area and only destroyed 15 of the required 20 T-90s.²⁵ The commander's decision is whether to leave attack aviation as a striking force for the brigade or reallocate it to the subordinate unit being impacted by the five T-90s. It is essential the staff plans for assets and conducts battle

damage assessments so the brigade can determine if the conditions are set for the close fight. Additionally, it is important that an intelligence collection handover from the deep fight to the close fight occurs to maintain contact with enemy forces as they approach the subordinate unit's AO.

At times, a brigade may need to dynamically re-task assets to the close fight; however, a commander should always keep assets looking deep.

“Deep operations are conducted to set the conditions for subordinate commanders in the close area. The success of future operations and other units depends on the success of the planned deep operation. Therefore, some deep operations may proceed despite the presence of circumstances that would normally abort the mission. Conversely, significant or unexpected decisive events in the close area may cause the commander to redirect forces from deep operations to reinforce other operations.”

— Army Techniques Publication (ATP) 3-94.2, *Deep Operations*

MANAGING TRANSITIONS

Transitions take place when the commander determines to shift focus from one military operation to another.²⁶ However, the process of anticipating and managing transitions occurs throughout the brigade fight. Commanders and staffs consider physical, temporal, virtual, and cognitive factors when establishing their operational framework.²⁷ When managing transitions between phases and types of operations, they must factor each of these considerations into planning and execution, but generally place the greatest emphasis on space (physical) and time (temporal) dimensions.

Observations at JMRC reveal the complexities of the brigade fight and areas where brigades can improve across all three categories — enable, fight, and manage transitions. However,

#	Fundamentals for Success
1	<p align="center">MISSION COMMAND</p> <p>Can you communicate, are you leveraging all systems, and do you have a shared understanding/common visualization across the brigade?</p>
2	<p align="center">BATTLE RHYTHM</p> <p>Do you have an effective battle rhythm to enable mission command — commander's update brief (CUB)/battle update brief (BUB); intelligence synchronization, logistics synchronization, and targeting meetings inform OPSYNC; plans to CUOPs transition; and frequent commander dialogue/touchpoints in battle rhythm?</p>
3	<p align="center">TARGETING</p> <p>Is your targeting process having effects (lethal and non-lethal) on the enemy prior to direct fire? Dynamic vs. deliberate? Is observer plan tied to fires? Are we fighting off HPTL? Counterfire — are we good enough at predictive and reactive?</p>
4	<p align="center">COMMON OPERATING PICTURE</p> <p>Do we maintain analog and digital COPs (blue forces with multinational forces, opposing forces, logistics, engineer) in real time? COP, in coordination with commander's critical information requirements, feeds the decision support matrix and facilitates synchronized operations and shared understanding/common visualization.</p>
5	<p align="center">PLANNING AND REHEARSALS</p> <p>Does planning and rehearsals reflect commander's guidance? Have we moved beyond the conceptual to provide enough detail to synchronize operations? Are we getting warning orders 1-3 and operation order within one-third, two-third standard? Anticipating transitions? How effective are Intelligence, Surveillance, Reconnaissance (ISR)/fires, sustainment, and combined arms rehearsals to shared understanding/common visualization? Are we rehearsing brigade commander's intent and fight or just backbriefing battalion operations?</p>

Figure 5 — Five Fundamentals for Brigade Success

observations over the last two years of decisive action training also reveal best practices for brigade success. These best practices have been developed into five fundamentals that incorporate all three categories of the brigade fight. Brigades able to achieve all five fundamentals will be postured to succeed at fighting at the brigade level.

FUNDAMENTALS FOR SUCCESS

Simplifying the brigade's focus areas to enabling subordinate units, prosecuting the deep fight, and managing transitions address the complexity that brigade staffs are often stymied by, but the paradigm doesn't address other fundamental tasks that generate broader success when executed effectively. There are five fundamentals that, when executed well, impact overall brigade success in the offense, defense, and when conducting stability operations.

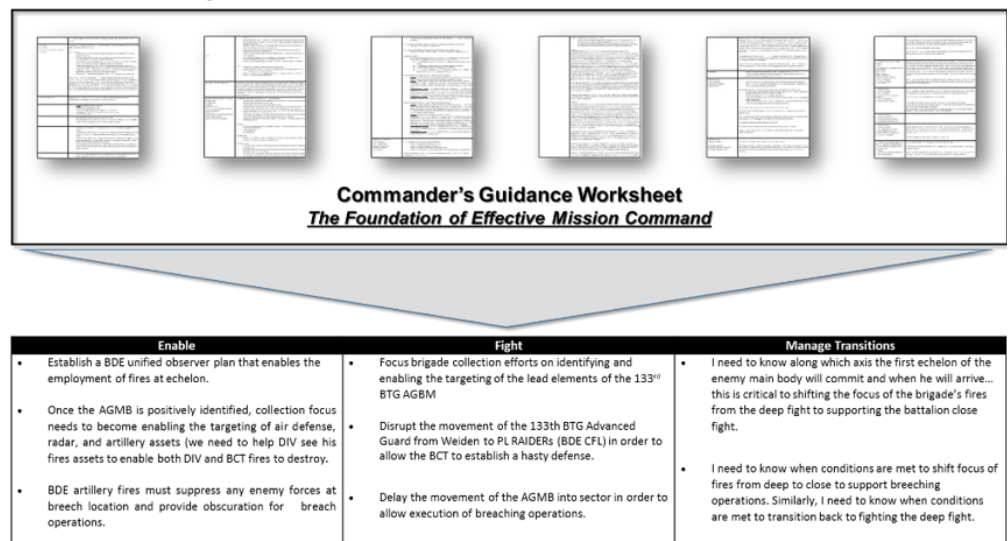
Mission Command

The logical first fundamental for brigade success is mission command. The entry point during a brigade operation is the brigade commander's guidance. Issued early in the MDMP, the commander operationalizes the philosophy of mission command through broad but clear guidance. It affirms the commander's place at the helm of MDMP and drives the operations process through the activities of understand, visualize, describe, direct, lead, and assess.²⁸

While commanders articulate their guidance differently, effective guidance consists of key components. Detailed intent, initial information requirements, risk assumption and mitigation considerations, and guidance specific to each warfighting function (WfF) communicate the commander's understanding of the mission. These also enable staff and subordinate units' understanding of how the commander visualizes the operation and directs necessary action.

An ongoing trend is a lack of understanding by the brigade staff and subordinate units of how the commander visualizes his fight in time and space, leading to ambiguity regarding how the brigade enables the battalions and manages transitions. Vague guidance, such as "we will focus fires deep" and "I need to

Figure 6 — The Foundation of Effective Mission Command



know where the enemy will commit,” is insufficient to enable staffs and subordinate commanders to develop effective plans that bifurcate brigade assets and responsibilities from those of subordinate units.²⁹ Every commander will have his preference regarding how and when to communicate guidance; however, the use of the commander’s guidance worksheet is an example of a successful technique that includes guidance pertaining to the core functions of the brigade fight. As critical as initial guidance is, and as well as many commanders provide it, deliberate guidance to staffs following battlefield circulation or dialogue with subordinate commanders is equally or more important. Deliberate touchpoints between a commander and the staff in the battle rhythm provide an opportunity to update commander’s guidance.

Battle Rhythm

Historically at JMRC, units struggle with managing a battle rhythm, which results in missed opportunities for the brigade to influence the fight. A battle rhythm is not a “one-size-fits-all” standard across all formations. It must accommodate the fight and not remain static.³⁰ When developing a battle rhythm, brigades must consider higher and subordinate headquarters’ battle rhythm and reports, the duration and intensity of the operation, as well as how to integrate staff planning requirements to ease transitions.³¹

Field Manual (FM) 6-0, *Commander and Staff Organization and Operations*, highlights the operations synchronization (OPSYNC) meeting as the key event in a unit’s battle rhythm.³² However, current and future operating environments require a continuous OPSYNC process and reassessment. Our frame of reference must change from the COIN mindset and consider targeting cycles and mini-OPSYNCs as the norm to achieve effects in a multi-domain environment.

At the OPSYNC, the brigade staff must decide if an asset or capability should remain as part of the brigade fight or allocated to enable a subordinate. The outputs of meetings such as the intelligence or logistics synchronization meeting feed the inputs into the OPSYNC. At the conclusion of the OPSYNC, WfFs are synchronized, the decision support matrix is updated, and the daily fragmentary order is ready to issue. Repetition is critical to success.³³

Often absent from observed OPSYNCS is the synchronization of current and future operations. According to FM 6-0, the sole purpose of conducting a battle rhythm is to synchronize current and future operations to alleviate friction normally experienced as a brigade transitions between phases of an operation.³⁴ Each WfF has a responsibility to internally synchronize current and future operations so everyone clearly

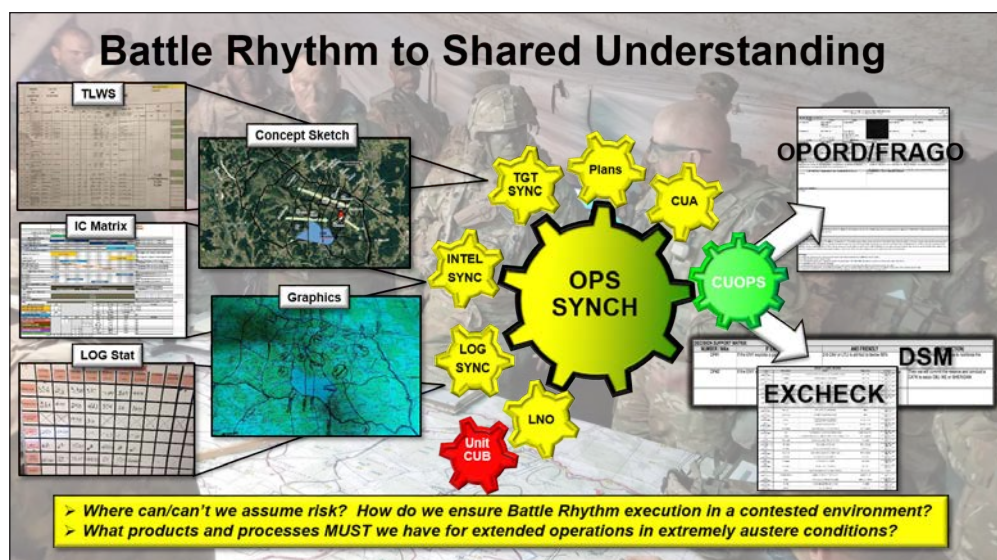


Figure 7 — Battle Rhythm to Shared Understanding

understands upcoming operations and decision points. Once current operations has a shared understanding, the plans team needs to continue to focus on “What’s the next fight?” Done correctly, battle rhythm supports brigade efforts to synchronize how they enable subordinate units, evaluate and plan effects in the brigade’s fight, and prepare to manage transitions.

Targeting

The brigade’s targeting cycle is a holistic, central process that continuously accounts for the physical and temporal dimensions of the brigade’s fight — close and deep. The targeting process commences early in the MDMP, is nested with the division’s targeting cycle, and persists to achieve the effects necessary to shape across the breadth and depth of the brigade fight. Simply, units should “develop a useful SITEMP (situation template)/event template to execute a simple HPTL (high-payoff target list), linked to our EFSTs (essential fire support tasks), linked to collection, linked to PIR (priority information requirements)...”³⁵

During a recent rotation at JMRC, the brigade’s fire support coordinator (FSCOORD) aptly identified the challenge of executing the targeting process to facilitate the transition between phases. “From a targeting perspective,” he questioned, “how do we fill that transition period to enable the maneuver to reconstitute? We could have maintained contact with the enemy with fires... we’re defending... and then we are going to go on the offense, but we didn’t think about how we were going to buy the subordinate units time to be able to reconstitute and go into the attack.”³⁶

At JMRC, the brigade’s deep fight is commonly executed between the brigade coordinated fire line (CFL) and the brigade/division boundary.³⁷ The execution of the deep fight consists of targeting and engaging brigade HPTs through the integration of combined and joint lethal and non-lethal enablers and shaping fires to set the conditions for battalion and company success and transition to the next phase of the operation. As the deep transitions to close — be it during the

offense or defense — the deep fight persists in time and space.

Units at JMRC habitually establish and execute a targeting battle rhythm but do not conduct requisite analysis to understand when transitions should occur. For example, due to the threat they pose, enemy air defense systems are commonly the brigade's number one HPT. However, brigade staffs rarely plan for the suppression or destruction of enemy air defense systems, nor do they understand or accurately assess conditions that make it safe to fly. This gap does not allow the brigade to adjust its HPTL, reallocate enablers, promulgate effective situational understanding among its formations, or anticipate requirements necessary to facilitate effective transitions.

The brigade's close fight occurs in its close and support/consolidation areas. Targeting efforts are frequently focused on engagement of the local populace in population centers and countering unconventional threats.³⁸ The targeting process should account for the changing conditions that exist relative to the phase of the current operation in the close fight, with particular attention to the status of population centers and the level of engagement required over time. A trigger should be tied to conditions identified during the targeting process that once met signals the initiation of transition of population center control from one brigade echelon to another or from military to civilian authority.

During one recent rotation's final after action review, the FSCoord lamented the opportunities missed by ignoring the local populace and integration of non-lethal enablers during the brigade's targeting battle rhythm until late in the rotation. He stated, "Early on in the targeting meeting, it was an hour of lethal actions and five minutes of non-lethal actions... As we transitioned, we began to realize these non-lethal guys are pretty important because they have information; they are effectively observers for us in many ways and they have

The targeting process should account for the changing conditions that exist relative to the phase of the current operation in the close fight, with particular attention to the status of population centers and the level of engagement required over time.

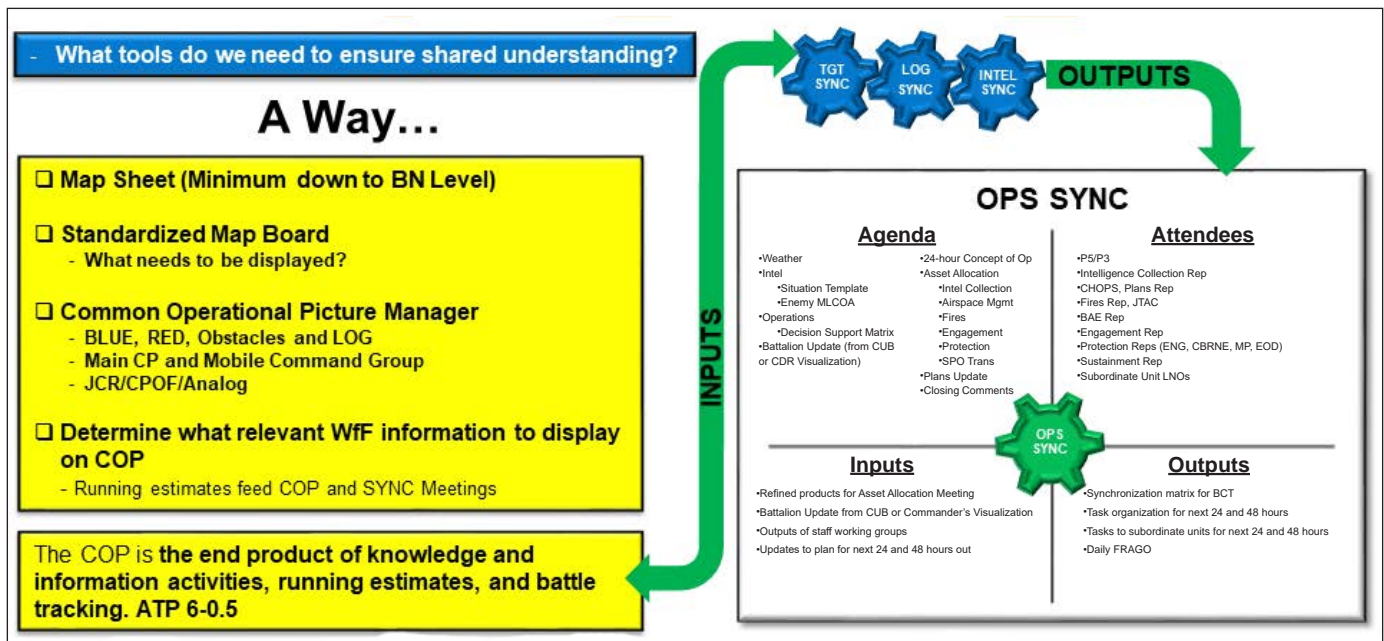
tremendous influence."³⁹ His thoughts reflect the common trend of brigades overlooking targeting as a fundamental for success.

Common Operating Picture (COP)

Every command post maintains a form of a COP whether digital, analog, or both. Units typically do not struggle with understanding the purpose or benefits of a COP, but tend to struggle with updating the COP and what to display. Just like a brigade's battle rhythm, a COP is not "one size fits all," and there is no standard checklist of required items for display. However, at a minimum, each WFF should also maintain an accurate and up-to-date COP as the significant activities and information can feed the command post COP.

A COP is defined as a single display of relevant information within a commander's area of interest tailored to the user's requirements and based on common data and information shared by more than one command.⁴⁰ Another frame of reference is to consider the COP as the visual two-minute drill. Brigade staff sections develop running estimates that provide relevant data for the COP to promote shared understanding throughout the command. At JMRC, units typically allow COPs to go stale with information due to an inability to receive real-time data, resulting in missed opportunities during the fight or confusion during transition periods.⁴¹ The COP serves as the

Figure 8 — Common Operating Picture



end product of a staff's ability to accurately receive and track real-time data informing the commander's critical information requirements, enabling rapid decision making, and supporting a shared understanding for all involved in the operation.

Inputs into the COP should change throughout the phases of an operation. A brigade staff continually modifies and assesses the information displayed. For example, as a brigade transitions from offense to defense, the brigade engineer needs to display the obstacle emplacement updates to the overall COP.

Planning and Rehearsals

Brigade staffs commonly surge personnel based on a higher-level operation or fragmentary order, complete the planning process, issue an order, conduct some type of rehearsal, execute... then wait for the next order before completing the cycle again. Commanders typically do not assess the progress of one operation and transition to the next (e.g., defensive to offensive operations) looking for opportunities to exploit success or recognizing when the brigade reaches culmination. Staffs routinely fail to ask the key question "what next" during initial planning sessions. Commanders are not provided with branch plans during execution or follow-on sequels once the commander decides it is time to change the brigade's focus. Successful brigades typically execute combined arms, sustainment, and fires/intel rehearsals for each operation.

During a typical rotation at JMRC, brigades conduct a defense, then seize intermediate objectives, and then conduct a final offensive attack to finish the destruction of the enemy forces. As the brigade transitions from the defense to the offense — achieving success in the deep fight and creating overmatch for battalions in the close fight — the plans cell should shift the focus of the brigade deep fight to the counterattack, identifying objectives or key terrain to seize and exploit the initiative gained from the offense. As the brigade executes the counterattack, the plans cell should shift the brigade deep fight to the next objective, transitioning to the offense, further exploiting the enemy, and again setting the conditions for the maneuver battalions to achieve success.

Another component in planning for transitions is the physical arrangement of forces in the deep, close, support, and consolidation areas. As lines of communications become extended and the size of the civilian population in the brigade's support/consolidation area increases, the plans cell should consider options to account for the change in battlefield geometry.⁴²

CONCLUSION

At JMRC, the brigade fight is often misunderstood, not planned or executed, and the enemy maneuvers unimpeded to first contact with companies. As is the case across the Army, 17 years of conditioning requires relearning how to fight at the brigade level. A framework for understanding the brigade fight revolves around three concepts: enabling subordinate units, prosecuting the deep fight, and managing transitions. Given the complexity and nuance involved within each of

these three areas, JMRC developed five fundamentals based on observed best practices of multinational brigades training here over the last two years. Brigades achieve success across the components of the brigade fight by inculcating the five fundamentals. Given the current and future operating environment, the Army will need to continue to prepare to operate against near-peer threats leveraging multi-domain anti-access and area denial capabilities. To that end, brigades must influence the enemy prior to contact with companies and continue to do so as long as the enemy remains in the brigade's assigned area — they must set conditions for companies' success.

NOTES

¹ For purposes of this article, we define brigades as armored/Infantry/Stryker brigade combat teams though we use brigade fight throughout the article.

² LTG (Retired) David Barno and Nora Bensahel, "The U.S. Military's Protection Deficit Disorder," *War on the Rocks*, 5 July 2016, <https://warontherocks.com/2016/07/the-u-s-militarys-protection-deficit-disorder>.

³ Future operational environments will likely consist of complex urban terrain, dense populations, and an increasingly adaptive adversary employing a mix of traditional, unconventional, and hybrid strategies to include cyber, electronic, and subterranean warfare. See the U.S. Army Operating Concept (AOC), TRADOC Pamphlet 525-3-1, *Win in a Complex World*, 31 October 2014.

⁴ For purposes of this article, the term "brigade" is used in lieu of "brigade combat team;" TRADOC Pamphlet 525-3-6, *U.S. Army Functional Concept for Movement and Maneuver 2020-2040*, February 2017.

⁵ "Cross-domain maneuver is the employment of mutually supporting lethal and nonlethal capabilities in multiple domains to create a synergistic effect that increases relative combat power and provides Army maneuver forces with the overmatch necessary to destroy or defeat enemy forces." TRADOC Pamphlet 525-3-6, 3-5.

⁶ Army Doctrine Reference Publication (ADRP) 3-0, *Operations*, October 2017, 3-2; however, at the brigade level and especially during large-scale combat operations, brigades will unlikely perform all three tasks simultaneously as all combat power may be required to execute a specific task. See Field Manual (FM) 3-0, *Operations*, October 2017.

⁷ FM 3-96, *Brigade Combat Team*, Chapter 1; Army Techniques Publication (ATP) 3-91, *Division Operations*, October 2014, 1-19.

⁸ ADRP 3-90, *Offense and Defense*, Chapter 1, August 2012.

⁹ FM 3-0, figure 1-7, corps area of operations within a theater of operations.

¹⁰ ATP 3-91, 1-3.

¹¹ TRADOC Pamphlet 525-3-6, Chapter 4.

¹² FM 3-0, 1-149.

¹³ *Ibid*, figure 1-7, corps area of operations within a theater of operations.

¹⁴ *Ibid*, 1-120-126.

¹⁵ Original author/designer unknown, but it is a common graphic used to depict the complexity of the brigade fight at Combat Training Centers. Multiple variations exist and will be familiar to readers.

¹⁶ ATP 3-60, *Targeting Process*, May 2015.

¹⁷ FM 3-0, 1-149.

¹⁸ This simplified brigade fight framework can also be useful as a guide to dividing staff functional responsibilities. Loosely analogous to current operations, future operations, and plans, the enable-fight-manage transitions framework offers simple lines of effort that functional experts on staffs can use to guide their efforts.

¹⁹ "Shiny object" is a colloquial term used to define the battalion close fight.

²⁰ At JMRC, most training units do not achieve effects on enemy high-payoff targets in the brigade deep area.

²¹ ADRP 3-0, 4-26.

²² FM 3-96, 3-34.

²³ See generally FM 3-0.

²⁴ Very few units use the Correlation of Forces Model (COFM) that helps the staff establish a rough estimate of the combat power ratio between opposing forces. The Army has an additional method called Relative Combat Power Analysis (RCPA). This method utilizes the elements of combat power to compare enemy strengths against friendly weaknesses to identify relative advantages and disadvantages.

²⁵ Third-generation Russian battle tank that entered service in 1993.

²⁶ FM 3-90-1, *Offense and Defense Volume 1*, 1-42.

²⁷ When establishing their operational framework, commanders and staffs consider the physical, temporal, virtual, and cognitive aspects of their own AO, their higher echelon's AO, and subordinate AOs. The physical, temporal, virtual, and cognitive aspects of an operational framework vary in terms of focus and priority depending upon the echelon, force capabilities, and the OE (FM 3-0).

²⁸ ADRP 6-0, 1-3.

²⁹ For example, battalions need to know what assets the brigade commander will retain to achieve success shaping to enable the close fight.

³⁰ FM 6-0 defines a battle rhythm as "a deliberate daily cycle of command, staff, and unit activities intended to synchronize current and future operations."

³¹ *Ibid*, 1-64.

³² *Ibid*, 1-58.

³³ The Center for Army Lessons Learned published a handbook, *News From the CTC, The OPSYNC: Best Practices*, that is recommended to readers for further reference.

³⁴ FM 6-0, Chapter 1.

³⁵ Key task outlined by COL David W. Gardner, brigade commander during a recent rotation at JMRC.

³⁶ Allied Spirit VIII brigade end-of-rotation (ENDRO) after action review (AAR).

³⁷ Coordinated fire line — A line beyond which conventional and indirect surface fire support means may fire at any time within the boundaries of the establishing headquarters without additional coordination. The purpose of the coordinated fire line is to expedite the surface-to-surface attack of targets beyond the coordinated fire line without coordination with the ground commander in whose area the targets are located (JP 3-09). Considerations for terrain, weapon system capabilities and limitations as well as type of operation will influence where the deep fight is actually fought.

³⁸ At JMRC, unconventional threats are normally special purpose forces that target brigade mission command and sustainment nodes.

³⁹ Allied Spirit VIII brigade ENDRO AAR.

⁴⁰ ADRP 6-0.

⁴¹ A commander's ability to make informed decisions is also degraded.

⁴² Examples include moving the location of the civil military operations center to a more central location or out of the support area to a consolidation area; or jumping the brigade support area to decrease lines of communication and provide more responsive logistics in preparation for the defense or continued offensive operations.

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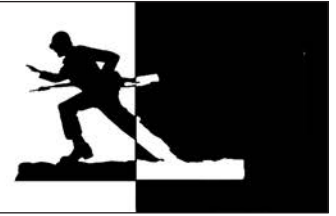
MAJ Durward E. Johnson currently serves as the senior brigade analyst and operational law OCT at JMRC.

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Soldiers with the 2nd Cavalry Regiment conduct dismounted patrols at the Joint Multinational Readiness Center in Hohenfels, Germany, during Saber Junction 17 on 11 May 2017.

Photo by SSG Richard Frost





The Lost Art of Developmental Counseling

SFC DANIEL SIGNORE

Editor's Note: *This article first appeared in the November 2018 NCO Journal.*

When you hear the words developmental counseling, what comes to mind? Do you view the upcoming session as a “check the block” requirement from a laundry list of tasks? Do you often find yourself copying and pasting the same verbiage and bullet points from Soldier to Soldier? Or maybe, when you finally get around to conducting the session, it's executed more as a formality, with the supervisor talking at the subordinate rather than encouraging two-way communication.

Many are guilty of powering through monthly counselings. Along with the ever-increasing operations tempo today's Army faces, as leaders we're responsible for ensuring several tasks get accomplished in a short amount of time. However, short-changing developmental counselings is not the best leadership approach for making your session effective. This will result in failing to develop your subordinates, which then fails to develop the larger Army. Learning to listen during a counseling session and develop a plan together will increase the engagement, collaboration, and respect between supervisor and subordinate.¹

Ancient armies realized the positive impact performance counseling had on their Soldiers. The book *Leadership Lessons from the Ancient World: How Learning from the Past Can Win You in the Future* closely examines the leadership examples of ancient rulers. For example, the Roman army, considered the backbone of the Roman Empire and one of the fiercest fighting forces in world history, placed a heavy emphasis on leadership development.² Military training and discipline were stringent. Leaders focused on identifying gaps in performance, then used creativity and common sense to develop their Soldiers.

Why is counseling a lost art? First, let's be clear that the intent for writing this article is not to make counseling experts, but to bring back awareness to the importance counseling plays in a Soldier's career and personal development while also giving leaders some tools to make their counseling sessions more effective. Army Techniques Publication (ATP) 6-22.1, *The Counseling Process*, states, “Counseling is the

process used by leaders to review with a subordinate the subordinate's demonstrated performance and potential.”

Retired Army GEN Colin Powell, a former national security advisor, once said, “Leadership is the art of getting people to do more than the science of management says is possible.”³ We know how to fill out a Department of the Army (DA) Form 4856. But the art of the counseling is more than just reviewing subordinates' performance: it's unlocking their potential.

We must realize that the whole counseling process starts with communication. Genuine communication builds trust. But two-way communication is the essential element of any counseling session. According to Melinda Fouts, “It's about mental awareness and being present in the moment. When you are talking mindfully, you are conscious of the words you choose. You think before you speak and make a conscious decision to use your best communication in a respectful manner, even if it's a difficult situation.”⁴

This allows leaders to share information about goals, issues Soldiers are currently facing, and other key points of discussion to reach a solution that's best for the Soldier's development. The following are helpful tips for conducting a productive counseling session:

Find a Good Location

Communication is the key to a productive session, and it is difficult to communicate effectively with multiple distractions around (for example, loud noises, people walking by, etc.). Something as simple as sitting a subordinate down in a quiet setting shows them that you're serious about making a connection and are truly there to help.⁵

Schedule Counselings

If we value counseling sessions, then we need to ensure we set aside time for these sessions to take place. Schedule them during payday activities. This helps because you're already in your dress uniform and tactical training is unlikely to occur. Second, both parties present a professional appearance, which coincides well with setting the right atmosphere.

Ask Open-Ended Questions

Amy Adams (n.d.) recommends including six to 10 open-

ended questions in a counseling to help counsees reflect on their performance and goals.⁶ If subordinates are allowed to help develop their own conclusions, they are more likely to follow mutually agreed upon solutions.

Identify Short-Term and Long-Term Goals

This adds relevance and productivity to the session and gives you and your subordinate the feeling of working towards mutual goals. Revisit those goals during future counseling sessions and document your findings in the assessment portion. If you're having trouble identifying goals and benchmarks, refer to a career map. For more detailed guidance reference DA Pamphlet 600-25, *U.S. Army NCO Professional Development Guide*.

The "I Agree" Box Enigma

The "I agree" box in part III of DA Form 4856, session closing, states whether the subordinate agrees or disagrees with the plan of action.⁷ The space provided underneath is the subordinate's opportunity to provide why he/she disagrees. The subordinate's signature constitutes that he/she understands the plan of action, not necessarily that he/she agrees with it (the Soldier had the opportunity to annotate this earlier). I've seen on many negative counselings where the leader has written "Soldier refused to sign" on the signature block after the Soldier disagreed with the information above. This should not be the case given the purpose of the signature block. The leader should communicate to the Soldier that the signature does not constitute conformity, but rather an understanding of the plan and what is required of them as the person being counseled.

For example, if the plan of action states, "Hand write a 350-word essay on accountability due by tomorrow," the subordinate may disagree with this, believing that the punishment is too harsh and check the "I disagree" box. However, the Soldier will sign stating that he/she understands what was assigned.

Type the Counseling in Real-Time

Too many counselings are pre-typed and give off the appearance of a standardized formality. Copying and pasting previous bullets will increase the chance of your counseling looking "cookie-cutter" and that you don't care about your subordinate's development. RallyPoint recommends that while you're talking to your subordinates, document their performance, identify goals, and plan for their future while typing it on the spot.⁸ Then, review it with them, and afterwards, have them digitally sign and save it to a folder for you to print later.

This is a proven and efficient method that works well in terms of communication and building trust. If you need more room, utilize a continuation counseling in the format of a memo or another sheet of paper and attach it to the DA Form 4856.

Have the Counseling Packet Present

Counseling sessions are also about being proactive in identifying issues. Ensure that you have your Soldiers' Leave and Earnings Statement (LES), Soldier Record Brief (SRB), work order requests, Soldier issues, Record of Emergency

Too many counselings are pre-typed and give off the appearance of a standardized formality. Copying and pasting previous bullets will increase the chance of your counseling looking "cookie-cutter" and that you don't care about your subordinate's development.

Data (Department of Defense Form 93), etc., present so you can review these documents and identify potential problems. This is also an opportunity to look through the counseling packet and update information to include the assessment portion on the previous month's counseling.

Don't forget to review family information to ensure nothing has changed. For example, at foreign duty stations, whether or not the Soldier's spouse is command-sponsored is important and something that the command needs to know. Is the recently married Soldier receiving the correct Basic Allowance for Housing (BAH)? What is the status on the work orders you requested for your single Soldier(s) in the barracks? Is all personal vehicle information up to date? These are a few questions to ask at every session to ensure the well-being and personal readiness of your Soldiers.

Conclusion

Development comes in many forms, and counseling is an important part of it. If you follow the strategies provided, counseling sessions may go smoother and help your Soldiers become more attentive. The more time taken to mentor subordinates, the more we're investing in our future as an Army. It is up to NCOs to demonstrate the blueprint for success when counseling Soldiers.

Notes

¹ Melinda Fouts, Ph.D., "How to Become More Mindful of Your Communication," *Forbes*, 5 June 2018. Retrieved from <https://www.forbes.com/sites/forbescoachescouncil/2018/06/05/how-to-become-more-mindful-of-your-communication/#5f6d3b841460>.

² Arthur Cotterell, Roger Lowe, and Ian Shaw, *Leadership Lessons from the Ancient World: How Learning from the Past Can Win You the Future* (West Sussex, England: John Wiley & Sons, Ltd, 2006).

³ Colin Powell, "Why Leadership Matters in the Department of State. 2003," (Speech given on 28 October 2003). Retrieved from <https://govleaders.org/powell-speech.htm>.

⁴ Fouts, "How to Become More Mindful."

⁵ Eric Jackson, "Ten Biggest Mistakes Bosses Make in Performance Reviews," *Forbes*, 9 January 2012. Retrieved from <https://www.forbes.com/sites/ericjackson/2012/01/09/ten-reasons-performance-reviews-are-done-terribly/#15ca15395ee0Jackson>.

⁶ Amy Adams, "A First-time Manager's Guide to Performance Reviews," *The Muse*. Retrieved from <https://www.themuse.com/advice/a-firsttime-managers-guide-to-performance-reviews>.

⁷ Department of the Army Form 4856, *Developmental Counseling Form*. Retrieved from <https://armypubs.army.mil/>.

⁸ RallyPoint (2017). Retrieved from <https://www.rallypoint.com/answers/what-are-your-pet-peeves-regarding-da-form-4856-and-2166-8-1-counseling-forms-and-sessions>.

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Meeting Our Enemies in the Mountains

LTC (RETIRED) CHARLES D. HENRY

When we deploy into the mountains, we encounter our first two basic enemies — altitude and cold. Depending on their severity, these alone can wear us down and perhaps kill us. From the beginning, we must be aware of the burdens they place on our bodies so that we can adapt, habituate, and continue with our mission. With gaining altitude the oxygen pressure diminishes, stealing our physical energy. With cold, the heat energy and moisture we need to live are constantly being sucked from our bodies.

We should remember that Hannibal lost 50 percent of his soldiers and fighting elephants to cold and altitude as he crossed the Alps to attack the Roman forces.

Altitude as the Enemy

High-altitude illness, which usually occurs at altitudes above 1,500 meters (4,921 feet), is caused primarily by hypoxia (low oxygen) but is compounded by cold and exposure. It presents as one of three forms: acute mountain sickness (AMS), high-altitude pulmonary edema (HAPE), and high-altitude cerebral edema (HACE).

Acute Mountain Sickness

AMS is the most frequent type of altitude sickness encountered. Symptoms often manifest themselves six to 10 hours after reaching altitude and generally subside in one to two days, but they occasionally develop into the more serious conditions.

The occurrence of AMS depends primarily on the rate of ascent, the altitude attained, and the individual person's susceptibility. In the civilian environment, AMS affects 15-30 percent of Colorado resort skiers, 50 percent of climbers on Mount McKinley, 70 percent of climbers on Mount Rainier, and 25-50 percent of climbers who trek to the base of Mount Everest.

Our maximal oxygen uptake begins to decrease significantly above an altitude of 1,600 meters (5,249 feet). The altitude limitations in total body oxygen transport begin to appear above

Students cross-country ski during the bivouac portion of the Cold Weather Leaders Course 9-14 February 2017. The course is taught at the Northern Warfare Training Center in Black Rapids, AK.

Photo by David Vergun



2,000 meters (6,562 feet). For every 1,000 meters (3,281 feet) above that, the maximum oxygen consumable by our body drops by approximately 8-11 percent.

AMS is characterized by a spectrum of symptoms. Headache is the main symptom. Nausea, vomiting, dyspnea (shortness of breath), and insomnia are common symptoms. The warfighter at altitude can also experience impaired cognition and balance. The onset of symptoms typically occurs within hours to three days after arrival at altitude. These symptoms tend to resolve after several days but can persist for up to two weeks. They also can be the harbinger of the fatal conditions: HACE and HAPE.

At intermediate altitudes, 1,500-3,000 meters (4,921-9,843 feet), up to 25 percent of unacclimatized warfighters may experience AMS. The treatment of AMS consists of stopping the ascent and allowing acclimatization at the same altitude.

HAPE

Up to 15 percent of warfighters in altitudes over 2,500 meters (8,202 feet) will develop HAPE, depending on the warfighter's age, sex, and rate of ascent. HAPE is a form of noncardiogenic pulmonary edema and is associated with marked pulmonary hypertension. It is more common in persons under 20 years of age.

HAPE usually occurs at night one to three days after an ascent is begun. It is a medical emergency and is the most common cause of death from high altitude.

At an elevation of 3,900 meters (12,796 feet), the unacclimatized warfighter consumes more oxygen with the increased work of breathing than is gained by that additional ventilation.

There is no definitive treatment for HAPE other than descent. If HAPE is diagnosed early and treated appropriately, patients usually recover completely. The death rate for untreated patients can be as high as 44 percent. In one study, 66 percent of HAPE patients had a recurrence of HAPE on subsequent returns to altitude.

Altitude Effects		
Altitude	Approximate Elevation	Effects of Acute Altitude Exposure
Low	Sea level — 1,200 meters (4,000 feet)	None
Moderate	1,200-2,400 meters (4,000-7,870 feet)	Mild altitude illness and decreased performance may occur
High	2,400-4000 meters (7,870-13,125 feet)	Altitude illness and performance decrements are more common and greater
Very High	4,000-5,500 meters (13,125-18,000 feet)	Altitude illness and decreased performance is the rule
Extreme	5,500 meters (18,000 feet) and higher	With acclimatization, humans can function for short periods of time

Acute Mountain Sickness (AMS)

- AMS is caused by ascending too rapidly to high altitude. Symptoms may include headache, nausea, vomiting, fatigue, irritability, insomnia, or dizziness.
- Symptoms generally appear four to 24 hours after ascent to high altitude, reaches peak severity in 24 to 48 hours, and subsides over three to seven days at the same altitude.
- To treat AMS, stop further ascent and descend. Continuing an ascent puts individuals at risk for more severe high-altitude illnesses.
- Once symptoms have gone away, troops can resume gradual ascent. Those who continue to show signs of AMS must be observed for development of high-altitude pulmonary edema or high-altitude cerebral edema, both of which could be fatal.
- All troops are susceptible to high-altitude illness. A staged or graded ascent that allows time for Soldiers to acclimate to altitude can help prevent AMS.

High-Altitude Pulmonary Edema (HAPE)

- HAPE occurs when individuals ascend too rapidly to high altitude or ascent too rapidly from a high to a higher altitude.
- HAPE normally begins within 24-72 hours after rapid ascent to 2,438 meters (8,000 feet) or more. Symptoms include coughing, noisy breathing, wheezing, gurgling in the airway, difficulty breathing when at rest, and deteriorated behavioral status (such as confusion or vivid hallucinations).
- Troops experiencing AMS who are not treated and continue to ascend to higher altitudes are at significant risk for HAPE. If untreated, HAPE can be fatal within six to 12 hours.
- Preventive measures include to drink plenty of water, eat regular meals high in carbohydrates, staged and graded ascent, proper acclimatization, sleeping at the lowest altitude possible, avoiding cold exposure, and avoiding strenuous exertion until acclimated.
- Immediate descent is the best treatment for HAPE.

High-Altitude Cerebral Edema (HACE)

- HACE is the most severe illness associated with high altitudes.
- In general, HACE occurs later than AMS or HAPE. If untreated, HACE can progress to coma in 12 hours and death within 24 hours. In some instances, death has occurred in less than 12 hours. The average onset time of symptoms following ascent is five days with a range of one to 13 days.
- Symptoms of HACE often resemble AMS (severe headache, nausea, vomiting, and extreme lethargy). However, a more visible indicator of the onset of HACE is a swaying upper body, especially when walking. Early behavioral deterioration may include confusion, disorientation, and inability to speak coherently.
- Preventive measures for HACE are the same as for AMS and HAPE. Troops with symptoms of HACE should be evacuated immediately.

HACE

HACE constitutes the progression of severe AMS or HAPE to then include involvement of the brain, causing encephalopathy. While mild AMS may progress to HACE with unconsciousness within 12 hours, HACE usually requires one to three days to develop. The symptoms of HACE, like HAPE, are worse at night.

Sequelae from HACE can last weeks, but eventually patients usually recover completely. The overall death rate in untreated patients is 13 percent, but it rises to 60 percent if coma occurs.

Ascending slowly is the best way to avoid altitude sickness. Avoiding strenuous activity in the first 24 hours at high altitude reduces the symptoms of AMS. As alcohol tends to cause dehydration, which exacerbates AMS, avoiding alcohol consumption in the first 24 hours at a higher altitude is optimal.

Sleep

In addition to the effects of fatigue, warfighters going to altitude often have unrestful sleep because of diminished stage-3/4 and rapid eye-movement sleep. In addition to a diminished quality of sleep, many individuals exhibit periodic breathing at intermediate altitudes, and all do at altitudes over 6,300 meters. Periodic breathing, the waxing and waning respirations with periods of apnea, interferes with the already suboptimal arterial oxygenation in the high-altitude environment to produce cycles of even more profound arterial oxygen deficiency. Periodic breathing occurs during 24 percent of all sleep at 2,440 meters (8,006 feet). Lastly, sleep at altitude is characterized by frequent waking. All of these produce an unsatisfying sleep and contribute to daytime fatigue.

As with the other symptoms of AMS at intermediate altitudes, sleep can be expected to return to normal with acclimatization. Sleep at very high altitudes will remain persistently disturbed. After the initial 24 hours, dehydration and sleep disturbances will become more prominent.

Although full acclimatization to altitude takes four to six weeks, many of the physiological adaptations occur in the first two weeks and the more severe disturbances should have settled.

Up to 1,500 meters (4,921 feet), altitude has little effect on the body. Above this level, studies on men show the cardiovascular, respiratory, and metabolic systems are affected.

It takes approximately two weeks to adapt to the changes associated with the low pressure conditions at 2,268 meters (7,500 feet). Every 610-meter (2,000-foot) increase requires an additional week of acclimatization to altitude. But no matter how long an individual lives at altitude, they never fully compensate for the lack of oxygen and never regain the level of aerobic power or endurance performance they had at sea level.

The treatment of AMS consists of stopping the ascent and allowing acclimatization at the same altitude. The only reliable



Photo by SPC Gage Hull

A Soldier assigned to 10th Special Forces Group (Airborne) rappels while conducting mountain warfare training near Corvara, Italy, on 17 September 2018.

treatment and in many cases the only option available is to descend. Attempts to treat or stabilize the patient at altitude are dangerous unless highly controlled and with good medical facilities.

Prevention

Being physically fit does not affect the incidence of AMS, but physical fitness does improve exercise tolerance. It also may help to prevent HACE and HAPE by improving the blood's response to exercise. Warfighters going to a high altitude should keep well hydrated by forcing fluids and avoiding alcohol and drugs.

Altitude acclimatization is necessary for warfighters who move rapidly from lower altitudes to intermediate altitudes. Stopping at an intermediate altitude overnight can reduce or eliminate the occurrence of AMS.

Another option is the staged ascent. This involves traveling to an intermediate altitude and camping for several nights before continuing the ascent to the target altitude. For example, if a warfighter has an objective at 3,000-4,300 meters (10,000-14,000 feet), they should acclimatize at 1,800-2,500 meters (6,000-8,000 feet) two to four days beforehand.

With as few as 12-16 days of acclimatization, submaximal exercise endurance increases 40-60 percent compared with exercise endurance on arrival at altitude. Be sure to enforce the drinking of enough fluids, avoidance of alcohol, and eating regularly. The foods should be relatively high in carbohydrates.

The physiological stress from hypoxia, cold, wind, and dehydration increases with altitude, and our physiological performance will always drop. The rate of ascent, altitude attained, amount of physical activity at high altitude, as well as individual susceptibility, are contributing factors to the onset and severity of high-altitude illness.

The wary use of acclimatization can be a key to victory in the mountains. In October 1962, the Chinese invaded India to seize strategic mountain territory. They utilized 80,000 troops they had prepositioned for up to one year in Nepal and their portion of the Himalayas. The Indians responded vigorously with 10,000-20,000 troops to protect their territory, but many of their troops were unacclimatized, moving slowly and hampered by altitude sickness. The war played out in the harsh terrain of the Karakoram Mountains, some 4,270 meters (14,000 feet) above sea level. Many of the casualties were caused by the harsh conditions found at that altitude rather than by enemy fire. Hundreds of the injured on both sides died of exposure before their comrades could get medical attention for them. The Chinese were able to hold the strategic territory they desired and then called for a cease fire which India accepted.

Cold as the Enemy

The thing to understand is that environmental cold can reach levels that our bodies cannot by itself adapt to — that is to stand on its own and survive. What we do is habituate, selecting behaviors that support and sustain our body's temperature and other needs so that life continues and we can succeed in our tasks. To do this we need food and water, shelter, clean dry clothes, adequate rest, and we need to understand how to act in the environment to safely sustain ourselves.

The challenge in the cold is to understand and reduce or prevent the body's loss of moisture and heat to the environment. Cold air is dry air which dehydrates the body. The steaming breath we see is the visible evidence of the water and warmth leaving our bodies. The cold environment is constantly leaching the energy and moisture from our bodies that we need to live.

The caloric requirements of warfighters are 25-50 percent higher during cold-weather operations than in warm or hot weather. Warfighters expend more energy during cold weather due to wearing heavy cold-weather gear and the increased effort required for working or walking in snow or mud or for preparing positions in frozen ground. The body uses more calories keeping itself warm when the weather is cold, and this also contributes to the increased energy requirement to accomplish our work.

Observations reveal that warfighters reduce their fluid intake during all field operations but especially during cold weather. Because field rations contain less water than garrison food, warfighters take in less water with the food they eat. Usually only half to two-thirds of the water used by the body is replaced by drinking between meals. Most people do not feel thirsty until they are already significantly dehydrated, and thirst is less noticeable in cold than in hot weather. When weather is particularly cold and/or rainy, many warfighters purposely allow themselves to become dehydrated to avoid having to leave comfortable shelter to urinate outdoors.

Stressful cold environments can require many and continuous adjustments in planning and operating. The demands for water, food, shelter, and warmth to sustain the warfighter's body are ongoing, changeable, and cannot be denied. Although lessons learned are invaluable guidance and

orientation, no cookie-cutter approach in planning by itself will guarantee success over time. As human beings warfighters are adaptable, strong, and can absorb a lot of punishment, but as the environmental stress continues week after week after week all weaknesses are revealed and paid for. No fixed man-made schedule can simply be imposed on operations in a severe environment without involving potentially lethal cost. Victory always requires payment. It is up to us to be aware of the risks and costs and hopefully find the ways to pay the minimum.

Summary

Whenever we move over the general range of 4,900 feet in altitude, we must always consider that the environment is always reducing air pressure and diminishing our energy supply as we climb. As the temperature drops below 40 degrees Fahrenheit, the cold begins to suck the energy out of our bodies and take with it the moisture we need to stay alive. These two separate forces begin to undermine our physical abilities to function and survive no matter how fit we may be to begin with.

Under these conditions, our bodies then become yet just another piece of equipment that we constantly have to monitor so that we can depend on it being capable of what we need it to do when we need it.

With awareness of how our bodies respond to the environment and what they need along with proper planning and execution, we can move on to our objectives and take control, rather than staggering on to the objective and then collapsing into an exhausted, vulnerable state.

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The Bells of Balangiga: A Tale of Missed Opportunity

CAROLE BUTCHER

The Philippine-American War broke out in 1899 hard on the heels of the Spanish American War. Although the conflict began as conventional warfare against Spain, American troops unexpectedly found themselves engaged in a guerilla war with the Filipinos. This article examines one small incident that occurred on the island of Samar. It demonstrates how American Soldiers completely misread a situation that resulted in a massacre of American Soldiers.

In October 1897, a major typhoon struck the Leyte Gulf and had a terrible impact on the Philippines. Father Jose Algue of the Observatorio de Manila described it as the “montaña o masa de agua” (the mountain or mass of water) and reported that Samar and Leyte bore the brunt of the storm.¹ As a result of the typhoon, fishermen and farmers lost their livelihoods. Virtually all provisions that had been stored were destroyed. *The Barrier Miner*, a newspaper from Broken Hill, New South Wales, reported that an estimated 7,000 people were killed. Numerous ships were wrecked and their crews lost.² The few photographs that exist of the aftermath clearly show vast areas wiped clean of trees, houses, churches, and crops. The coconut trees that the locals relied on for income were decimated by the typhoon, and a coconut palm takes four to five years to become productive. Conservative estimates of the resulting food shortage and economic collapse placed the period for recovery at a decade.³ But the town of Balangiga on the island of Samar did not have a decade to recover. American troops would arrive in four short years. The stage was set for the U.S. Army’s worst defeat since George Armstrong Custer met his end at Little Big Horn 25 years earlier.



Map 1 — Philippines

As the Spanish-American War ended in 1899, Filipinos expected to be liberated from Spain. Instead, the United States purchased the Philippines for \$20 million. There were Filipinos who appreciated the improvements that came with the American presence. But many of those who fought against Spain were not about to trade one colonial master for another. They were determined to throw off the new occupier of their lands. The Spanish-American War ended and the Philippine-American War began.

On 11 August 1901, Company C of the 9th United States Infantry arrived in Balangiga. They had been sent in response to the mayor’s request for protection from insurrectos.⁴ The arrival was amiable on the surface, but there was an underlying tension on both sides. Town officials went to the American transport anchored in the bay to meet with CPT Thomas Connell and his officers. The meeting was cordial enough, but each side had a warning for the other. CPT

Connell informed the town officials that Company C had come in peace. However, he made it clear that he would meet any hostilities “with immediate and vigorous action.” That was no empty threat. Company C was no stranger to combat. The 74 seasoned veterans arrived in the Philippines from China, where they had fought the Boxer rebels and helped to capture Beijing. They were confident in their ability to handle any hostile situation.

For his part, the mayor informed CPT Connell that the locals had massacred an entire Spanish regiment, leaving not a single man alive.⁵ No such incident is known to have occurred in the Balangiga region. It is possible that the mayor was simply trying to impress on the Americans that they should

not take the goodwill of Balangiga for granted.

In spite of the somewhat testy introduction on both sides, members of Company C reported that “[e]very possible courtesy was shown us by them [the Filipinos].”⁶ The initial interaction between the Soldiers and the native population was, in fact, quite friendly. The Soldiers tried to teach baseball to the locals who in turn tried to teach Filipino stick fighting to the Soldiers. There were tales of a romance between an American Soldier and a Filipino woman, identified as SGT Frank Betron and Casiana “Geronimina” Nacionales.⁷ Valeriano Abanador, the local police chief, found a willing chess opponent in Company C’s surgeon, MAJ Richard Sill Griswold.⁸

Then in September 1901, two drunken American Soldiers tried to molest a local girl. Her brothers injured the Soldiers in the process of rescuing their sister. CPT Connell took swift action against the Filipinos for attacking American Soldiers. He knew the post was due for an inspection, and he felt intense pressure to have his command in order.

CPT Connell ordered 148 local men rounded up for forced labor. They were held with only two small tents for shelter. Their families were finally allowed to bring food and water to them the following day. The next order was the confiscation of all bolos. Bolos were Philippine machetes used by workers in the fields, but they were equally adaptable to military purposes. However, in an oversight on CPT Connell’s part, the seizure was confined to the town proper. The outlying barrios remained armed. Connell then ordered the seizure of any stores of rice and fish as well as all livestock. In an effort to prevent food and supplies from reaching the insurrectos in the surrounding hills, he also closed the port.⁹ In doing so, he cut the town’s economic lifeline. The locals relied on income from coconut oil, an industry that was just beginning to recover from the typhoon. But selling the oil required shipping it to Tacloban on the island of Leyte, and that required the use of the port. In addition, CPT Connell began to interfere in local customs and, in doing so, he made a bad situation worse. He attempted to ban cockfighting. This was probably less out of concern for the welfare of the roosters and more because of the gambling and drinking that invariably accompanied the activity. But the locals saw it as an intrusion into their way of life and did not take it kindly.

The locals no longer saw the Americans as amiable visitors with whom they could peacefully coexist. CPT Connell was unaware of the growing anger. The Americans had no interest in learning about the local culture, so Connell was not familiar with the Samar concept of *awod*. *Awod* refers to shame or loss of face due to a public slight. Once present, *awod* can only be removed by taking revenge as public as the original insult. In fact, failing to do so only invites further abuse.¹⁰ As the townspeople contemplated CPT Connell’s actions, this ancient concept rose to the surface and fueled their determination to remove the *awod*.

The Balangigans sought guidance from Abanador, the local police chief who had connections with trusted officers of Vicente Lukban, the senior insurgent officer on Samar. Two of Lukban’s officers, Captain Eugenio Daza and Pedro Duran Sr, joined five

locals to develop an ambitious plan. They would organize about 500 men into seven units. The participants represented not only Balangiga but the nearby towns of Lawaan, Giportos, and Quinapundan.¹¹ They planned to attack while the Soldiers were at breakfast when most of the Americans would be concentrated in a small area and most would be unarmed. Only a few guards would have their rifles.¹² The insurgents knew they had to be successful. Failure would result in a terrible retribution by the Americans. Little did they know that success would bring the same result.

The Soldiers of Company C continued their daily activities, unaware that anything had changed. They supervised the labor gang of local men cleaning up garbage and chopping down brush that surrounded the town. The mayor offered to increase the size of the workforce by bringing in men from the countryside who owed taxes. CPT Connell agreed to add the laborers to the workforce. Records put the number between 40 and 80. Some of the Soldiers were nervous about the presence of these new workers. They were very muscular, and the Soldiers thought the men had a dangerous look to them.¹³ The new workers were, in fact, insurrectos. Unbeknownst to CPT Connell, he had just welcomed Lukban’s best bolomen into Balangiga.

The Americans had the greatest confidence in the power of their firearms. LT Edward Bumpus noted, “We have scouted over all the country within a radius of several miles of this post and have not been troubled by any ladrones [robbers] with bolo or gun. As we never go out without arms, and hardly ever alone, no native is liable to bother an American Soldier if he values his health.”¹⁴

On 7 September, LTC Morris Foote, the commander of the garrison at Basey, located about 10 miles from Balangiga, arrived to meet with CPT Connell. On 1 September, insurrectos had attacked a group of Soldiers who were checking telegraph lines. LTC Foote wrote, “I went to Balangiga on the 7th [of September] and warned Tommy Connell about them [the insurrectos]... Possibly poor Connell did not fully realize just how treacherous and dangerous these devils are.”¹⁵

Abanador informed the Americans that Balangiga would celebrate the anniversary of its founding on 27 September. People began to arrive from the countryside. Knowing of the shortages, most of them brought food. Six men carried a wooden box. The Americans examined it and found that it contained a statue of Christ. Had they examined it more carefully, they would have discovered bolos hidden under the statue. CPT Connell was uneasy, but as long as the food was eaten in the town and not transported to the insurrectos, he would allow it for the celebration. As sentry Adolf Gamlin paced his rounds, he noticed women and children leaving the town. He reported it to SGT Henry Scharer, but the sergeant was not concerned enough to investigate.¹⁶

There was a gathering at the church, which was normal on the day of a *fiesta*. It was not normal, however, for the men to wear dresses. They were trying to disguise the absence of women. The women had slipped out of town for safety. They

knew what was coming. The men in the church posted lookouts to watch for the approach of American Soldiers. They tied their bolos and knives to their wrists so they wouldn't lose them in the fighting that was to come. The few women left in Balangiga prepared water tubes to take to the laborers in the morning. But this time, the tubes did not contain water. They contained bolos. All was in readiness.

Reveille sounded at 0600 on 28 September. Company C turned out as usual. By 0630 the Soldiers gathered at the outdoor mess for breakfast. Typically, most of them left their rifles in the barracks. Suddenly, Abanador rushed out and grabbed Gamlin's rifle from him. He smashed the rifle butt into the man's head and tried to fire the weapon, but being unfamiliar with the Krag Jorgenson, he was unable to fire. PVT George Allen later remembered, "I can see the chief of police now as he made his attack... Things happened so quickly after that it is surprising to me that any of us were ever left to tell the tale."¹⁷

The church bells began to ring as a signal that the attack had begun. The doors of the church slammed open and men swarmed out, bolos at the ready. It took the Soldiers a moment to realize what was happening. The mess tent was a prime target. Many of the men there were killed where they sat. Those who were able to fought back with whatever they had at hand. They threw rocks and cans of food at the attackers. The cook

dumped boiling water on his assailant. While some men were able to escape the mess tent, within minutes 20 Soldiers lay dead there.

The insurrectos swarmed the Soldiers on five fronts. The three American officers, who were in their quarters, were a main target. Two were killed almost immediately. CPT Connell managed to grab his Krag and jump out a window but was killed by more than a dozen Filipinos as soon as he hit the ground. Some of the Soldiers were able to get to their Krags. Others fought with axes, knives, and rocks. As soon as the bells started ringing, the laborers grabbed the smuggled bolos and rushed to the municipal building where they knew guns were stored. The Soldiers also raced in that direction trying to get there first. Another 20 Americans were killed in the fight for weapons. Only a few minutes into the attack and 40 Soldiers lay dead.

Abanador's main concern going into the attack was that his men would inflict great damage but would not be able to keep all the Soldiers from reaching their weapons. This is precisely what happened. And there was another difficulty: the Filipinos who were able to get rifles were unfamiliar with them and could not consistently fire them. There were only 20 Soldiers who were still able to fight, but they were armed with Krags and knew how to use them. The tide was turning. Abanador called for retreat. Some of the attackers were trapped in the municipal building.

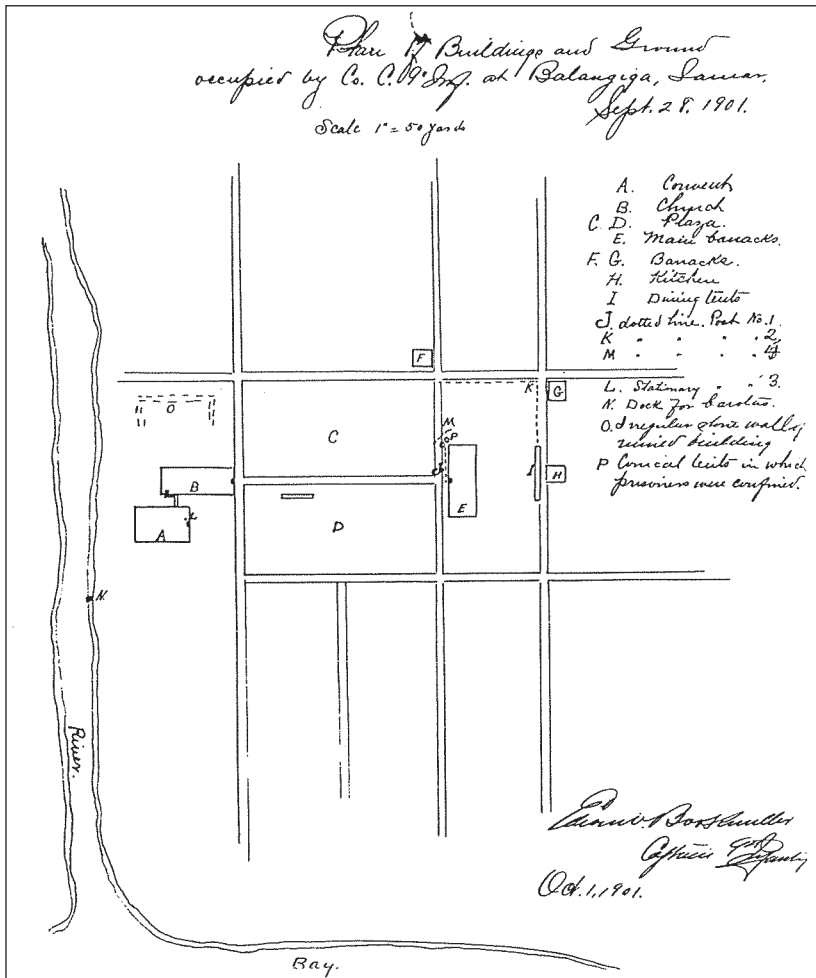
They tried to surrender, but the Soldiers were in no mood to take prisoners and opened fire.¹⁸

When they went to breakfast at 0630 that morning, there were 74 American Soldiers in Balangiga. Twenty minutes later, 45 were dead or died shortly after of their wounds. Only five were uninjured. More than 100 Filipinos had been killed. The senior Soldier was SGT Frank Betron. Betron didn't believe they would be able to hold the town until help arrived. He ordered an evacuation by boat. The Soldiers removed the firing bolts from the Krags they couldn't take with them and threw the bolts into the river. A few Soldiers remembered that the American flag was still flying over the municipal building. They ran back to take it down and brought it with them. Five boats loaded with the survivors, most of them wounded, left Balangiga and headed for Basey. The Filipinos made a halfhearted attempt to pursue, but the Soldiers held them off with rifle fire. Their progress was slow, and they didn't arrive in Basey until 0400 the following morning. One of the boats had been swamped and the men in it put ashore. They were finally rescued by the USS Pittsburgh.

Abanador's fears of retribution came to pass. The American public was outraged at news of the massacre. An article in the *Minneapolis Journal* was typical; the headline blared "The Acme of Treachery." The article went on to say that "[t]he Filipino is a past master at treachery" and said the incident at Balangiga was typical of the Filipino character.¹⁹

GEN Jacob "Hell-roaring Jake" Smith was put

Map 2 — Balangiga Map Showing Key Locations



in charge of the response. Smith told LTC Littleton Waller, "I want no prisoners. I wish you to kill and burn. The more you kill and burn, the better you will please me. I want all persons killed who are capable of bearing arms against the United States." When Waller asked for clarification on the age limit, Smith told him 10 years old. Somewhat stunned, LTC Waller asked, "Persons of 10 years and older are those designated capable of bearing arms?" Smith confirmed that he meant exactly that. *The Manila Times* announced that "Extermination has been decided upon in retaliation for the massacre."²⁰ Thousands of Filipinos were killed, and the survivors were left to scavenge for food.²¹ Although the punitive expeditions left Samar a wasteland, LTC Waller refused to carry out orders to kill 10 year olds or carry out summary executions. He was acquitted of charges at his court martial. GEN Smith also faced court martial. He was convicted and drummed out of the Army.

Members of the 11th Infantry occupied Balangiga and confiscated the church bells. One of the bells is currently at Camp Red Cloud, the post of the 9th Infantry Regiment in South Korea. The other two are at F.E. Warren Air Force Base in Cheyenne, WY. The Bells of Balangiga have not been forgotten, and the people of Balangiga would like to have them back. In 2006, the mayor of the town said, "Hopefully, [the bells] will be returned to us. The Americans already cared for the bells for more than 100 years, and it is about time now that we ourselves would take care of those bells."²²

It is a major understatement to say that the course of Philippine-American relations has not always run smoothly. The fighting in the Philippine-American War was intense and ugly on both sides and is still a source of contested memory. But hard feelings don't last forever. On 20 October 1944, GEN Douglas MacArthur waded ashore at Palo Beach, fulfilling his promise to return.²³ The Filipinos once again looked to the United States for liberation, this time from Japan. The Philippines gained full independence on 4 July 1946, and it is no accident that the Philippine flag is primarily red, white, and blue. And although Philippine Independence Day is celebrated on 12 June in recognition of independence from Spain in 1898, 4 July remains Philippine-American Friendship Day. According to *The Manila Times*, "The celebration of Philippine-American Friendship is meant to remind us — and Americans — of our two countries' long-standing friendship."²⁴

Notes

¹ Father Jose, S.J. Algue. "El Baguio de Samar y Leyte, 12-13 de Octubre de 1897," Manila: Observatorio de Manila, 1903.

² "Typhoon and Tidal Wave in the Philippines," *The Barrier Miner*, January 1898.



Photo by SFC James McGuire

U.S. Secretary of Defense James Mattis announced the return of the Balangiga Bells to the Philippines during a ceremony at F. E. Warren Air Force Base, Cheyenne, WY, on 14 November 2008. Philippine Ambassador to the U.S. Jose Manuel Romualdez attended the ceremony which marked the beginning of the process to return all three Balangiga Bells.

³ Bob Couttie, *Hang the Dogs: The True, Tragic History of the Balangiga Massacre* (Quezon City, Philippines: New Day Publishers, 2014, Kindle Version), 35.

⁴ Victor Nebrida, "The Balangiga Massacre: Getting Even" in Hector Santos, ed., *Philippine Centennial Series*, 15 June 1997, accessed from <http://www.bibingka.baybayin.com/phg/balangiga/default.htm>.

⁵ Couttie, *Hang the Dogs*, 2701.

⁶ Ibid.

⁷ Arnaldo Dumedin, "Philippine-American War, 1898-1902," <http://philippineamericanwar.webs.com/balangigamassacre1901.htm>, accessed 26 February 2016.

⁸ Rolando Borrinaga, "The Balangiga Incident and Its Aftermath." The Library of Collective Human Records, <http://www.lchr.org/a/31/6p/balincafter.html>, accessed 2 July 2016.

⁹ Couttie, *Hang the Dogs*, 2582.

¹⁰ Michael Sellers, *Warriors of Samar: The Balangiga Uprising of 1901* (Kindle Edition, 2014), 634.

¹¹ Rolando Borrinaga, "Balangiga History Not Clear as a Bell," The Library of Collective Human Records, <http://www.lchr.org/a/31/6p/balnotclear.html>, accessed 2 July 2016.

¹² Ibid, 734.

¹³ Couttie, *Hang the Dogs*, 3309.

¹⁴ Ibid, 3005.

¹⁵ Ibid, 3019.

¹⁶ Sellers, *Warriors of Samar*, 766.

¹⁷ Couttie, *Hang the Dogs*, 3522.

¹⁸ Sellers, *Warriors of Samar*, 1183-1260.

¹⁹ "Acme of Treachery," *Minneapolis Journal*, 28 October 1901.

²⁰ Sellers, *Warriors of Samar*, 1540-1554.

²¹ Borrinaga, "The Balangiga Incident and Its Aftermath."

²² Abner P. Mercado, "Mga Kampana ng Balangiga (The Bells of the Balangiga)," The Correspondents Program of ABS-CBN, 15 August 2006.

²³ Russell F. Weigley, *The American Way of War: A History of United States Military Strategy and Policy* (Bloomington, IN: University of Indiana Press, 1973), 292.

²⁴ *The Manila Times*, "Philippine-American Friendship Day," 3 July 2014.

At the time this article was written, **Carole Butcher** was a PhD candidate at North Dakota State University. She previously earned a master's degree in military history from Norwich University and a bachelor's degree in history from Wright State University.

God Bless Thinking Soldiers:

A Former Battalion Commander's Advice to Future Combat Commanders

COL (RETIRED) FRANK HANCOCK

I was recently browsing the military history section at a book store when I happened to pick up the book *Tactics*. As I leafed through the book, I quickly came to the conclusion that *Tactics* was a civilianized version of the U.S. Army's Field Manual 3-90, published in 2013. I skimmed the book looking for new concepts and examples, since I am still avidly interested in military affairs, and I was pleasantly surprised that the historical example used to exemplify the concept of the offense was the maneuver conducted by the 101st Airborne Division (Air Assault) from 24-28 February 1991 during Operation Desert Storm. Interestingly, the accompanying example of a defense was the Battle of Kursk, the largest tank battle in history fought between Germany and the Soviet Union in 1943. The 101st Airborne's actions during Operation Desert Storm are very familiar to me as I was the commander of the 1st Battalion, 327th Infantry Regiment — one of nine air assault infantry battalions in the division while it was deployed in support of the Iraqi operation.

Referred to by former U.S. Defense Secretary Robert Gates as “the tip of the spear” in Afghanistan, the 101st Airborne Division is able to plan, coordinate, and execute brigade-size air assault operations capable of seizing key terrain in support of operational objectives, and is capable of working in austere environments with limited or degraded infrastructure. These particular operations are conducted by highly mobile teams covering extensive distances and engaging enemy forces behind enemy lines. Its unique battlefield mobility and high level of training have kept it in the vanguard of U.S. land combat forces in recent conflicts. More recently, the 101st Airborne has been performing foreign internal defense and counterterrorism operations within Iraq and Afghanistan.¹

During the 101st Airborne Division's 24 February 1991 attack into Iraq, my battalion was the lead infantry element tasked with seizing the terrain necessary to establish Forward Operating Base (FOB) Cobra. FOB Cobra was more than 100 kilometers inside Iraq and approximately 400 square kilometers in size. It was the division's first objective inside Iraq and was considered critical to follow-on operations by both the division and corps commanders. This air assault was to become the largest operation of its kind in history. Although it was accomplished in a seemingly effortless manner and used as “the textbook example” of an offense, it was far from a flawless operation. Moreover, it came surprisingly close to being a very different and potentially costly endeavor for the division.



As I recalled the operation and the events that preceded it, it occurred to me that an article about the “two thinking Soldiers” who — more than anyone — made the operation a success would be worthy of, as the late radio announcer Paul Harvey would say when dissecting a complex subject, “...the rest of the story.”

The Plan

“It does not do to leave a live dragon out of your calculations, if you live near him.”

— J.R.R. Tolkien, *The Hobbit*

On 24 February 1991, the 101st was scheduled to start the ground phase of Operation Desert Storm. Soldiers from the division's 1st Brigade would be the first American troops to seize terrain within Iraq. Planners would call it the longest and largest mass heliborne attack in history. If the plan went accordingly, the 1st Brigade would leap over the Iraqi frontlines and establish FOB Cobra more than 100 kilometers behind Iraqi frontlines.²

The establishment of FOB Cobra would be the first phase of the 101st's assault into Iraq. The plan called for FOB Cobra to be transformed into a giant fuel station with aviation fuel being flown into the FOB after it was secured. The plan called for follow-on operations including an air assault by the 3rd Brigade, 101st Airborne on 25 February to the Euphrates Valley, another 100 kilometers further into Iraq, and to cut Highway 8 as an escape axis for Iraqi forces trying to get out of Kuwait and back into Iraq.

The helicopters that transported 3rd Brigade to the Euphrates Valley would then fly to FOB Cobra to refuel and return to Saudi Arabia. Apache and Cobra attack helicopters would also use the FOB as a rapid refueling point to extend their reach into Iraq. Without the seizure and establishment of FOB Cobra, the maneuvers planned for by the 101st would not be feasible.

The Intelligence Estimate

“Therein lies the rub!”

— William Shakespeare, *Hamlet*

Most competent commanders will tell you that when conducting a heliborne (air assault) operation the most important aspect of planning is a timely and accurate intelligence estimate. Heliborne operations are inherently dangerous, especially upon landing. The 1st Brigade's assault into FOB Cobra required that the Blackhawk helicopters be optimized to deliver the largest possible amount of combat

resources in the least amount of time; therefore, each helicopter carried 14 Soldiers. Any enemy troops near the landing zone could potentially play havoc with the helicopters during their approach to the landing zone and while they are on the ground.

In the days preceding our historic assault, the intelligence picture for the landing zones assigned to my battalion displayed no confirmed enemy activity. However, there was one intelligence report that had identified an “unoccupied trench line” approximately a kilometer long in the area designated as our Alpha Company’s landing zone. Alpha Company was the lead company of the battalion’s air assault, and the “unoccupied trench line” bisected not only the landing zone but the area where the aviation fuel containers were to be delivered. The consensus of the intelligence (S2) sections of my higher headquarters, XVIII Corps, 101st Airborne Division, and 1st Brigade concurred that the trench line was “unoccupied” and the area around it was a suitable and relatively safe location for the Alpha Company landing zone.

“Thinking Heroes”

“A man who does not think for himself does not think at all.”
— Oscar Wilde

In November 1990 excerpts of the book *We Were Soldiers Once... and Young* by LTG (Retired) Hal Moore and Joe Galloway were published in the magazine *US News and Report*. The excerpts told the story of the heliborne assault of elements of the 1st Cavalry Division in the Vietnam War in 1965. Plagued by a faulty intelligence picture, the operation was very near a catastrophe.

This article was heaven sent because after reading the excerpts for myself, I had my battalion staff and company

commanders read the article and made the point that we were not going to make the mistake of launching an operation based on poorly thought out intelligence. I was fortunate to have under my command a battalion staff and commanders that were a serious and “hard” group of Soldiers. They took my words to heart.

As time ticked down to the kickoff of the ground war on 24 February, all commanders and staff members busily refined their plans and wholeheartedly attempted to create as accurate an intelligence picture as possible. Within my battalion, CPT Jose Delgado headed my S2 section. He was a very bright and inquisitive intelligence officer whom (he would later recount) was particularly troubled by the intelligence picture developed by the battalion’s higher headquarters. Specifically, CPT Delgado was concerned about the kilometer-long, reportedly unoccupied trench line in the middle of Alpha Company’s sector. “Why would someone make that much engineer effort without covering it with troops or artillery fire?” he would later ask in explaining his uneasiness.

CPT Delgado and his intelligence analyst, SGT Jesus Gonzalez, subsequently went about gathering as much information about the trench line as they could. Three days before the actual air assault, CPT Delgado and SGT Gonzalez hit pay dirt when they came across a satellite imagery report that indicated movement at grid coordinates that coincided with the trench line. This information clashed with the intelligence picture of corps, division, and brigade which surmised that the area was devoid of enemy activity or presence. On the evening of 22 February, less than 36 hours before the air assault, CPT Delgado, SGT Gonzalez, the battalion executive officer (MAJ Chappel), the battalion S3 (MAJ Dempsey), and the battalion

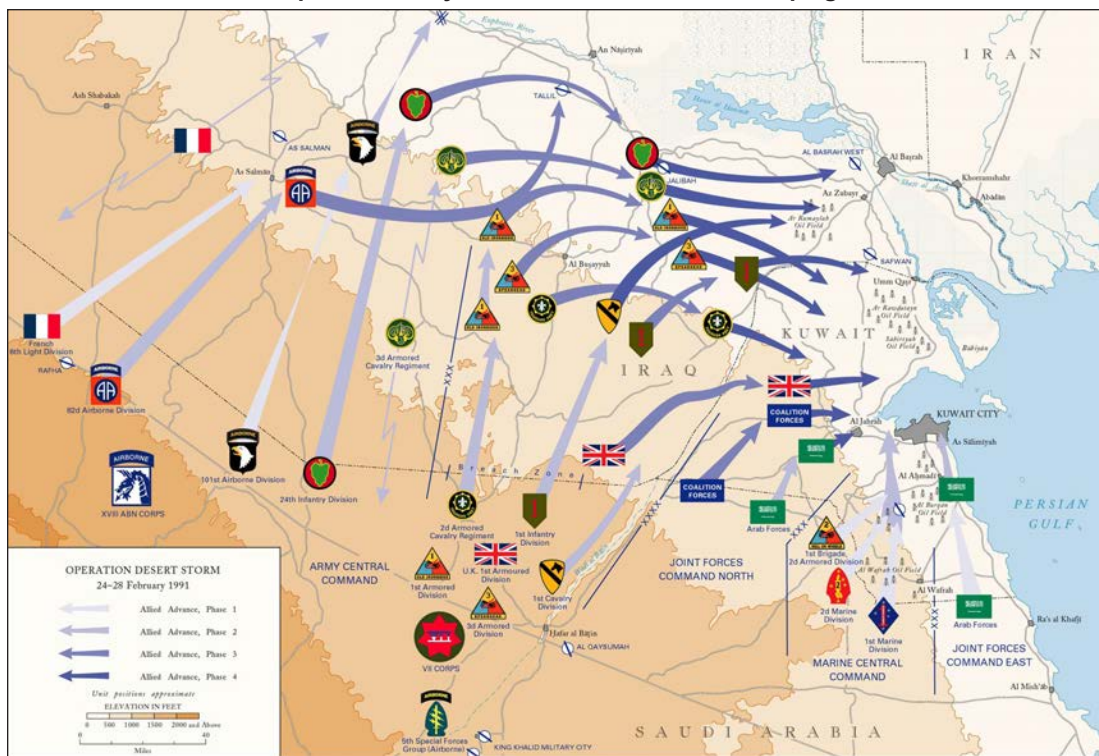
command sergeant major (“Rock” Riley) all briefed me on their analysis and conclusion that the trench line was occupied by Iraqi troops and that, if we followed the current plan, it could potentially become a disaster.

The Conversation and the Attack

“It is no use saying, ‘We are doing our best.’ You have got to succeed in doing what is necessary.”
— Winston Churchill

I was confronted by the fact that my entire staff believed that one of our landing zones had an entrenched position in it, and that I now had to make the case to the brigade commander at the eleventh

Map — Summary of the Offensive Ground Campaign



hour to change the location of that landing zone. It was now less than 36 hours before the air assault began, and moving the landing zone would create a significant ripple in the air movement table for the operation. More importantly, my staff was adamant that the intelligence picture of the brigade, division, and corps was inaccurate despite the fact that their information was ostensibly better sourced and their staff more senior. This was not going to be an easy conversation.

I raced to the brigade headquarters with MAJ Dempsey and CPT Delgado to attempt to convince the brigade commander that our lead landing zone needed to be moved. The conversation did not go well. The brigade commander was not convinced that our intelligence assessment of the situation was superior or more accurate and stated that he had been assured that the landing zone was not occupied. More troubling, he emphasized that my Alpha Company WOULD land on the predetermined coordinates. Extremely disappointed by this decision, I struggled for the remainder of the evening on ways to ameliorate this decision to protect the success of the mission and the lives of my troops.

The next morning (24 hours before the air assault), the brigade commander relayed the message that he had changed his mind and that the landing zone could be moved two kilometers south of the trench line. It would be impossible to convey the amount of relief felt by my staff and me. Although I was never privy to the reasons why the landing zone was moved, it proved to be enormously providential for my battalion.

The air assault proceeded the next morning on 24 February. A sandstorm had delayed the assault so the lead elements landed around 0820 hours instead of 0520. The Apache attack helicopters that provided fire support for the landing were taken under fire by forces inside the trench line which (after the adjustment) was now two kilometers north of our Alpha Company landing zone. One Apache helicopter was shot down in the ensuing engagement. After approximately two hours of Apache and Cobra attack helicopter support, Air Force F-16 and A-10 attacks, and a 105mm artillery battery pounding the Iraqis occupying the trench line, the enemy forces surrendered. A battalion of the Iraqi's 45th Infantry Division — 344 Iraqi soldiers — emerged from the trench line after what could have potentially been a long and protracted struggle to seize the terrain they occupied. Subsequent debriefings indicated that their mission was to ambush what they were briefed would be a French armor column moving up a highway behind the trench line. The Iraqi troops had camouflaged themselves by digging into the reverse slope of a hill where no tactical aerial reconnaissance had detected their activity.

Epilogue and Lessons Learned

All's Well That Ends Well

— William Shakespeare play

After the initial contact and subsequent surrender of the 344 Iraqi soldiers, Chinook and Black Hawk helicopters started to bring in supplies of aviation fuel for the next leg of the 101st Airborne's plan. On 25 February, 3rd Brigade flew to the Euphrates Valley and the returning helicopters refueled

There isn't a day that goes by that I fail to think about what would have happened if CPT Delgado and SGT Gonzalez had not thought for themselves, made their own analysis, and had the moral courage to speak up in the face of adversity.

as planned at FOB Cobra. The 1-327th IN was awarded the Valorous Unit Award, suffered no casualties, and was even memorialized in a painting done for the graduating Command and General Staff class at Fort Leavenworth in 2001.

There isn't a day that goes by that I fail to think about what would have happened if CPT Delgado and SGT Gonzalez had not thought for themselves, made their own analysis, and had the moral courage to speak up in the face of adversity. My best estimate is that the helicopters carrying Alpha Company into that landing zone would have had a very, very hard morning. The Iraqis within the trench line would have had the initial advantage of being in a fortified position and in a good location to defeat or severely hamper the initial landing of troops near the trench line.

In light of the aforementioned story, I think it is wise that current and future commanders heed a few lessons learned from this operation. First, always have the moral courage and confidence to think for yourself and make your own analysis. While higher headquarters provides information, only YOU can make your own analysis. Second, listen to your subordinates... they also have good ideas and frequently have access to information that you may not be aware of or considered in your deliberations. I listened to my staff and my brigade commander (after sleeping on it) ultimately listened to me. Lastly, do not be afraid to make waves. If you have something to say — say it and have the conviction to stick to your argument.

Notes

¹ "Gates Praises 101st Airborne as 'Tip of the Spear,'" Defencenews-online.com, 8 December 2010, accessed from <http://www.defencenews-online.com/land/gates-praises-101st-airborne-as-tip-of-the-spear>"; SSG Joel Salgado, "101st Airborne Division Conducts Brigade Air Assault," Army.mil, 9 April 2014, accessed from https://www.army.mil/article/123707/101st_airborne_division_conducts_brigade_air_assault; Russ and Susan Bryant, *Screaming Eagles: 101st Airborne Division* (St. Paul, MN: MBI Publishing Company, 2007).

² Daniel P. Bolger, *Death Ground: Today's American Infantry in Battle* (NY: Presidio Press, 1999).

COL (Retired) Frank Hancock graduated from United States Military Academy at West Point, NY, in 1972. Commissioned as an Infantry officer, he served 30 years in the Army with his last assignment being the chairman of the Department of Military Plans, Strategy and Operations at the U.S. Army War College. He served as commander of the 1st Battalion, 327th Infantry Regiment during Operation Desert Storm.

Jose Delgado also contributed to this article. He served as the battalion S2 (intelligence officer) of the 1-327 IN during Operation Desert Storm. He is currently serving as the director of the Current and Emerging Threats Center for the Department of Homeland Security.

Book Reviews



The Last Drop: Operation Varsity, March 24-25, 1945

By Stephen L. Wright
Mechanicsburg, PA: Stackpole Books, 2008, 336 pages

Reviewed by Chapel Collins

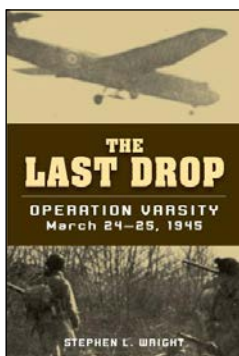
In *The Last Drop*, Stephen L. Wright has collected an immense amount of firsthand accounts from the men who carried out the remarkable, yet oft-overlooked Operation Varsity.

Varsity was the final major airborne offensive of World War II and the largest single-drop airborne operation in history. The drop was made in broad daylight by American, British, and Canadian forces while the Germans waited below. What followed was unprecedented resistance to an airborne operation — into the homeland of the enemy, no less — and the beginning of the end to the war.

Wright takes a backseat throughout the book, wisely and graciously allowing his primary sources to speak for themselves, and do they ever speak. The dozens of accounts from the men who were there, from different nations and divisions, paint a wide, comprehensive, and endlessly colorful picture of the entire operation. The book begins long before the operation and details everything from the histories of the participating regiments, to the planning of the drop, to the training, and finally to the operation itself. Even though it is written very academically and objectively, the personalities of the men going into battle come through their own words in a powerful way, and the tension before the battle is palpable.

When the battle does arrive, it arrives spectacularly. The accounts of the landings are all at once riveting, tragic, heroic, and awe-inspiring. Varsity was an operation fraught with tragedy and loss, but more than that, bravery in the face of it. Wright's permanent residency in the backseat of the story really allows these stories to shine on their own, but also tends to allow the structure of the book to become a bit chaotic. Darting back and forth between points of view does indeed make for a comprehensive account of the operation, but it can sometimes also trip up the pacing and even a little of the humanity of the story. Everything is clear enough to follow, but shifting gears so frequently and starkly puts a little wear and tear on the book's transmission, and spending so little time with so many different people can put a temporary stop on the investment into the personalities of the story.

Yet, at the same time, this shotgun blast of different accounts leads to a genuine capture of and appreciation for



the enormous scope of the operation. The book holds stories from infantrymen, pilots, medics, engineers, and everything in between. It provides a clear image of how many different and equally important roles were necessary to accomplish the goals of the operation. It also provides accounts of light-hearted or mysterious battlefield happenings, stories that the soldiers would tell each other, which rounds the book out and keeps it from ever becoming overly clinical.

Despite the fact that each of these accounts is equally valid and worthy, some of them are exceedingly similar. At the risk of sounding hard-hearted, many of the soldiers' stories are so similar that they don't contribute very much to the flow of the book. On the other hand, I suspect that was the point; by showing all of these stories, no matter how similar, it shows how each and every man on the field was equally brave and equally exposed to unrelenting danger.

The Last Drop is successful in providing a comprehensive boots-on-the-ground — or in the air — story of one of the most important operations of World War II. What it lacks in readability, it more than makes up for in authenticity. Wright's method of primary source compilation ensures that this book is and will remain among the ranks of the most pertinent books on the subject.

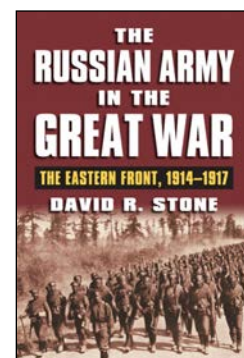
The Russian Army in the Great War: The Eastern Front, 1914-1917

By David R. Stone
Lawrence, KS: University of Kansas Press, 2015, 368 pages

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

David R. Stone's *The Russian Army in the Great War:*

The Eastern Front, 1914-1917 is a masterful survey and synthesis of an understudied and misunderstood combatant of the First World War. Long overshadowed by events on the Western Front or in tragic sideshows like Gallipoli, Stone's treatment of the Imperial Russian Army is well researched and well written, challenging its readers to view Russian participation as more than just a prelude to the Russian Revolution. Perhaps most valuable for the soldier, instead of static warfare and large attacks with limited gains as on the Somme or at Verdun, Stone recounts how armies advanced and retreated with surprising mobility, often going hundreds



of miles in a campaign. As our current discussion continues to focus on the potential for near-peer conflict with Russia, the places and battlefields Stone discusses are ripe for further study and battlefield staff rides.

The Russian army, Stone argues, was not that much different than her Western European allies and enemies. Russia's army was comparable to other continental powers: large-scale conscription, limited service time, reserve obligations. Similarly, all four major powers attempted decisive blows against their enemies during the opening of the war and all four failed. Furthermore, in combat, the Russian army frequently failed to turn operational successes into strategic victories. In other ways, though, the Imperial Russian Army was fundamentally different than the other combatants. First, it emphasized cavalry units over line infantry units. Secondly, it was significantly larger than its opponents or allies. Furthermore, it faced language and cultural issues as troops were drawn from across a polyglot empire. Stone's explanations of these similarities and contrasts set the stage for analysis of the war itself.

The book heavily weights the opening 18 months of the war, with only three chapters covering from 1916 on, including the Brusilov Offensive of 1916. These opening months were "marked by an almost uninterrupted sequence of campaigns" as both sides sought to gain the advantage in the east. The first six months of warfare saw multiple large-scale combat operations by all sides. As Germany, Austria-Hungary, the Ottoman Empire, and Russia battled, it became clear Russia was tactically and operationally unable to match the Germans, though "it performed quite respectably against Austria-Hungary and the Ottoman Empire." Russia was similar to her allies and enemies as a vanguard of capable officers quickly rose through attrition and the removal of incompetent leaders. Similarly, the Russian Stavka also struggled with the new demands of industrialized warfare, frequently "failing to impose clear priorities on Russia's commanders and thereby splitting resources."

Stone's emphasis on the operational level of war allows him to focus on campaigns, the Stavka, and senior commanders. He deepens this analysis through discussions of society, politics, economics, and diplomacy in order to better explain the context for military decisions and operational events, including the eventual collapse of Imperial Russia. *The Russian Army in the Great War* is an excellent introductory work to combat in Eastern Europe. Stone picks up the mantle laid by works like Norman Stone (no relation) in 1975's *The Eastern Front* or W. Bruce Lincoln's *Passage Through Armageddon* and synthesizes more recent scholarship and understanding for his readers. This book should find a place on the shelves of commanders in Europe and their staffs, as well as those interested in World War I who are looking to expand beyond the traditional narratives of the Western Front.



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