Infantry

Summer 2022

U.S. ARMY

JUNGLE

MASTERING CORE COMPETENCIES

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Mastering Core Competencies
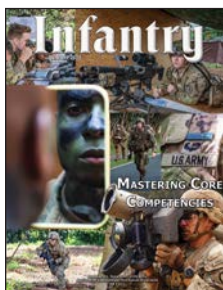
FRONT COVER:

The cover features photos from Expert Infantryman Badge/Expert Soldier Badge/Expert Field Medical Badge training conducted in April 2022 by the 25th Infantry Division at Schofield Barracks, HI. (Photos courtesy of 25th Infantry Division Public Affairs Office/SSG Timothy Gray/SPC Jessica Scott)

BACK COVER:

Soldiers assigned to the mortar platoon of 2nd Battalion, 69th Armor Regiment, 2nd Armored Brigade Combat Team, 3rd Infantry Division, fire a high explosive round from a 120mm mortar system during a mortar live fire at Fort Stewart, GA, on 6 October 2021. (Photo by SGT Trenton Lowery)

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

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Commandant's Note

BG LARRY BURRIS

Mastering the Core Competencies

Perhaps the most significant value of *Infantry* lies in the diversity of the topics available to the reader, and this issue is no exception. Although "Mastering Core Competencies" introduces the theme of our journal, over fifteen articles address aspects of our profession. Some are more readily tempting to those serving within the Profession of Arms than are others, but each offers its own insights and perspectives. Within this issue, four articles address the aspects of the Expert Infantryman Badge (EIB). Of note, in the lead article, "The Credential of a Professional Infantry Soldier," CSM (Retired) Robert K. Fortenberry offers a comprehensive review of the EIB's purpose, criteria, procedures, and impact in what can easily serve as a primer and source document on the process of earning the award.

Once Infantry Soldiers prove that they have mastered the basics, they must remain ready to deploy in response to any global threat. This includes one of the harshest climates on our planet, the Arctic. In his article, "Sustaining the Warfighter in the Arctic," CPT Christopher Mawn offers thoughts and considerations on tactics, techniques, and procedures, as well as planning for operations in this incredibly harsh and unforgiving environment. This piece provides an excellent introduction for those contemplating assignments within the Arctic Circle and an insightful perspective as one written from a logistician's point of view. Russian renewed interest and increased activities in this environment demand our utmost attention to the North, given the brutal conditions and security vulnerabilities under the Northern Lights. A short read, but one that will be time well spent.

Challenges faced by a country and its response to them define the operational environment at a time of conflict. Our great nation has evolved and succeeded in facing an increasingly uncertain array of threats that challenge our beliefs and seek to weaken the ties that bind us together as Americans. As mentioned previously, this threat has recently assumed a new image represented by the blatant aggression of Russia seen daily following the 24 February 2022 invasion of Ukraine. It would be ignorant, however, for us to believe that this display of violence will stop there and to not learn from actions of the past.

As we examine the subject of core competencies, we can see that the attributes we revere in the Profession of Arms are evolutionary by nature. Organizations learn what works in times of war and institutionalize the tactics, techniques, and procedures that proved most successful. Considering certain Ukrainian military successes against Russian invaders, it is also well worth the time and effort to review the enemy's core competencies. An insightful article by Dr. Lester W. Grau and Dr. Charles K. Bartles in this issue of *Infantry* addresses "The Russian Army and Maneuver Defense." The authors describe the Russian keys to success against adversaries, from Napoleon in 1812 to the aggressive delaying and defensive operations against German units throughout and beyond World War II. Grau and Bartles discuss the extensive Soviet grasp of our own doctrinal and tactical literature. Likely, the current Russian Federation is doing the same, analyzing our current doctrine, all of which is readily available on the internet. The importance of studying your adversaries is the exact reason why the Infantry School is beginning to implement the identification of Chinese and Russian weapons systems and vehicles across multiple programs of instruction (POIs). The earlier we start training our Soldiers to fight a specific enemy, the better prepared we will be as an Army.

Leader training and development remains at the forefront of what we do at the United States Army Infantry School. The NCOs and officers here are taught to maximize every opportunity and repetition while in training to reinforce the core competencies of the Infantry Soldier. Leaders then return to the force and pass on their knowledge and experience gained to those they lead, inspiring the confidence needed to fight in the complex battlefield of tomorrow. We all must ensure that we execute the "routine things routinely" by mastering the core competencies of our craft. By doing so, our Infantry formations will be better equipped to succeed in large-scale combat operations when called.

One force, one fight! Follow me!

EIB: The Credential of a Professional Infantry Soldier

CSM (RETIRED) ROBERT K. FORTENBERRY

The Expert Infantryman Badge (EIB) is the gold standard for evaluating expertise and mastery of those core Skill Level I tasks required for the base tactical/technical knowledge of the Infantryman. It is the cornerstone from which all infantry tactics are derived and is the hallmark of a tactically disciplined unit. The badge is a simple 3-inch rectangular bar with a background of Infantry Blue and a silver border. An embossed M1795 Springfield Musket is centered in the badge, un-cocked, for it has not yet been fired in combat. GEN George C. Marshall's intent for the badge was to provide prestige in a career field that requires living a tough life, enduring hardships under the most difficult conditions, and succeeding in accomplishing many undesirable yet essential tasks.
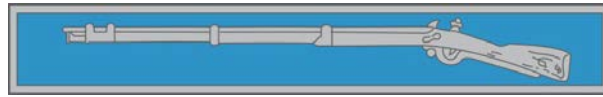
The intensity and integrity of the EIB program have developed and prepared our Infantrymen since 1944 and continue to test the Infantry Soldier for the future fight in large-scale combat operations (LSCO). The EIB and its associated events are the core of Infantry Skill Level 1 tasks, often referred to as Warrior Tasks, which are important to all Career Management Fields (CMFs) in the U.S. Army. A unified level of proficiency should be a standard that all other CMFs aspire to achieve to ultimately increase overall lethality of any formation, regardless of the CMF. However, the pursuit of task mastery and expertise are a must for all Infantry Soldiers to most effectively perform their duties. The EIB's rigorous standards and the physical and mental hardships endured during the testing period replicate the decision cycle and the required clarity of thoughts and focused actions under hardship, under stress, and in tough conditions to achieve success. The EIB test is designed to be a crucible event where the margin of error is measured in seconds and

Soldiers with the 3rd Brigade Combat Team, 10th Mountain Division conduct training on weapons tasks during expert badge training on 9 May 2022 at Fort Polk, LA.
Photo courtesy of 3rd Brigade Combat Team, 10th Mountain Division

requires consistent attention to detail. The EIB is the true mark of a professional Infantry Soldier and signifies mastery under test conditions for expertise of individual infantry tasks. It is the building block for collective-level training required to face the enemy in the last 100 yards of ground combat and should be planned and executed annually in support of training progressions across units with Infantry Soldiers.

The EIB is part of the individual to collective training progression, designed to build confidence at the individual level before progressing to collective and mission-essential task training. Throughout my career, including earning my EIB in 1998, I witnessed the EIB building tremendous confidence to succeed and challenging me and other Infantry Soldiers to continue to strive for excellence over the last 30 years. The EIB event assists leaders in establishing more than well-trained Soldiers. Great units always established two consistent attributes — not measured in metrics, flow charts, or qualification scores — but in the positive climate and culture they established. The data and statistics are a by-product of a positive command climate and a culture that use the EIB and other team-building events to encourage personal growth and professional development. The EIB establishes the confidence and training repetition for all Infantry Soldiers to want to succeed and set themselves apart as experts, wanting to aspire to be more within the organization. Leaders who sustain the EIB training event

Photo by SPC WIlliam Griffen

SSG Isaiah Johnson, an Infantryman assigned to the 1st Armored Brigade Combat Team, 3rd Infantry Division, receives his EIB on 10 November 2021 at Fort Stewart, GA.

solidify, through their deeds, that the opportunity for individual success of the Infantry Soldiers they lead is important to the command. It establishes a climate and culture that provide individual opportunity and can often be a catalyst for other mission-enhancing courses such as the Ranger, Master Gunner, and Jumpmaster Courses that increase the lethality of the collective organization. It is a simple human need to succeed. Nobody joins the Infantry to be average. Infantry Soldiers need a challenge. They need opportunities to contribute to something bigger than themselves. It is the core of who we are as Infantry Soldiers.

The integrity of the EIB is protected by the strict adherence to U.S. Army Infantry School (USAIS) Pamphlet 350-6, which is governed by the Infantry School Commandant and a team of USAIS EIB lane evaluators. The combination of EIB written standards, senior officer oversight, and NCO hands-on inspections maintain the integrity of the EIB program. The legacy of the EIB is maintained in this manner by preventing iterative deviation of the EIB over time, which would dilute and undermine the intent of original framework drafted by GEN Marshall and his team. On two occasions, while facilitating 2nd Brigade Combat Team, 10th Mountain Division's EIB and operating as an EIB Lane NCOIC for 1st Brigade, 10th Mountain Division, I personally witnessed the USAIS EIB Committee act as not only the standard bearers for the EIB, but as a critical professional resource for the execution of the EIB to standard. The team on both occasions spent much of its time assisting in lane development and EIB packet validation by using best practices from across the entire enterprise. The unit's EIB senior leaders found the assistance invaluable and instrumental in training and testing to a consistent standard

Photo by SPC Javan Johnson

A Soldier with 1st Battalion, 21st Infantry Regiment, 25th Infantry Division, practices deploying and retaining a dummy M18A1 claymore on 27 April 2021 during training at Schofield Barracks, HI.

in both of those formations. In the current generation of our Army where outsourcing validation through virtual technology appears to be an efficient option, I caution that it will likely create iterative deviation, and we must be hesitant and vigilant before we attempt to change a process that has never failed to deliver excellence. The EIB measures consistent expertise across the entire Infantry Branch regardless of location because it is validated with one unified standard with no deviations.

Finally, the EIB is a five-day testing event that requires minimal resources, if followed in accordance with USAIS Pamphlet 350-6. It is best executed at the brigade level for maximum training throughput that measures expertise of Skill Level 1 infantry tasks by applying both physical and mental hardship in a controlled environment. I also find it to be a perfect example of This is My Squad (TiMS) and the most genuine level of measurable leadership in our Army. It encapsulates the essence of an Infantry squad by sharing in the hardship of the event; teaching, coaching, and mentoring; and producing results in a measurable example of effective leadership. Leaders who attempt to earn their EIB are true examples of humble leaders who inspire others to never stop learning, developing, and becoming better versions of themselves. When old Soldiers stop and ask, "What will this generation of Soldiers and leaders need to carry on the legacy that made us successful?" I think we all have an example of our days trying to stay true-blue on an EIB site with leaders who inspired us to succeed. It is my opinion, as we look for ways to decrease Combat Training Center (CTC) rotation safety violations, it is leader involvement and Infantry Soldier expertise that will inspire our next generation of Infantry leaders. We do not have to look for more classroom instruction or social media communications; it is right in front of us, the EIB... the mark of the Infantry Soldier.

Editor's Note: *This article first appeared in the Spring 2021 issue of* Infantry.

CSM (Retired) Robert K. Fortenberry served as the U.S. Army Infantry School command sergeant major at Fort Benning, GA, from 25 March 2019 until 25 February 2021. During his career, CSM Fortenberry served as a brigade command sergeant major, battalion command sergeant major, battalion operations sergeant major, operations sergeant, first sergeant, platoon sergeant, drill sergeant, U.S. Army Sniper School instructor, rifle squad leader, team leader, 4.2 inch mortar team member, M249 SAW gunner, grenadier, and rifleman. He has served with the 2nd Battalion, 22nd Infantry Battalion, 10th Mountain Division, Fort Drum, NY; 2nd Battalion, 3rd Infantry Regiment (SBCT), Joint Base Lewis-McChord, WA; 173rd Special Troops Battalion (Airborne) in Bamberg, Germany; E Company, 2nd Battalion, 19th Infantry Regiment, Fort Benning; A Company, 2nd Battalion, 12th Cavalry Regiment, 1st Cavalry Division, Fort Hood, TX; A Company, 3rd Battalion, 67th Armor Battalion, 4th Infantry Division, Fort Hood; B Company, 2nd Battalion, 47th Infantry Regiment, Fort Benning; U.S. Army Sniper School, Fort Benning; and B Company, 1st Battalion, 27th Infantry Battalion, Schofield Barracks, HI. CSM Fortenberry has deployed four times to Iraq in support of Operation Iraqi Freedom and Operation Inherent Resolve and to Afghanistan in support of Operation Enduring Freedom.

EIB: Striving to Become an Expert

OFFICE CHIEF OF INFANTRY

On 29 March 1944, LTG Lesley J. McNair pinned the first EIB onto Technical Sergeant Walter Bull's chest. Since then the EIB has been the gold standard of Infantry task proficiency, and thousands of Infantry Soldiers have earned and displayed it with pride. The EIB's guiding document is USAIS Pamphlet 350-6 which lays out the tasks and standards required for Infantry Soldiers to obtain the coveted EIB. Offering a unique blend of arduous physical fitness events coupled with individual tasks, USAIS PAM 350-6 aims to test Soldiers' physical and mental toughness, technical proficiency, and perseverance.

A Soldier who has earned the EIB gains credibility amongst seniors, peers, and subordinates. The skills and attributes required to successfully earn the badge represent dedication and proficiency to our craft. Proficiency often leads to increased performance, and solid performance instills confidence amongst our leaders of our future potential for increased responsibility.

Evaluation Board statistics show a clear indication that board members also display confidence of future potential for Infantry Soldiers who have earned the EIB. The table below, broken down by rank, displays the Fiscal Year 2021 Evaluation Board statistics of Soldiers who had earned the EIB.

Soldiers Who Earned the EIB			
	Total Evaluated	Most Qualified	Top 20%
SSG	46%	98%	82%
SFC	85%	100%	98%
MSG	98%	99%	99%

The EIB is not a criterion for promotion; however, the statistics above show that those Infantry Soldiers who have earned the badge are evaluated at a significantly higher rate than their peers who have not. As Infantry Soldiers progress through their career, the percentage of Soldiers who have earned the badge increases substantially with each rank.

The EIB should be the primary goal for all Soldiers who have earned the Blue Cord. It shows dedication to the profession and significantly increases your potential for promotion. Although the EIB is unique to the Infantry Branch, it is not intended to detract from the vital role of other branches within our Army, but rather to serve as a symbol of tradition for Infantrymen who played a vital role in the defense of our nation's past, present, and future.

A Tradition of Excellence: History of the EIB

During World War II, Army Chief of Staff GEN George C. Marshall initiated the development of an award to honor the U.S. Army Infantryman. Just as the Combat Infantryman Badge (CIB) was intended to be an award for those U.S. Soldiers whose primary mission was to close with and destroy the enemy, the Expert Infantryman Badge (EIB) was instituted to build and maintain esprit de corps within U.S. infantry units. The intent of the EIB was to provide a drawing card for a tough and thankless job on the battlefield and add prestige to an otherwise undesirable yet necessary task.

The EIB was not intended to detract from the importance of other branches of the Army, other branches of service, or the military of our allied countries. The EIB was the symbol of tradition for U.S. Infantry Soldiers who played a vital role in the defense of our nation past, present, future.

The EIB was approved by the Secretary of War on 7 October 1943 and announced in War Department Circular 269 dated 27 October 1943.

According to the original EIB standards set forth in War Department Circular 269, an Infantryman could be awarded the EIB by:

"a. Attaining the standards of proficiency established by the War Department, or

b. By satisfactory performance of duty in action against the enemy."

In March of 1944, 100 NCOs of the 100th Infantry Division at Fort Bragg, NC, were selected to undergo three days of concentrated testing to determine who would be among the first to receive the EIB. Testing required candidates to:

• Qualify with one individual weapon and in transition firing; or

• Qualify with one crew-served weapon (for men who are authorized to fire same for qualification) and in transition firing.

• Complete familiarization firing with one other weapon.

• Complete continuous (without falling out) foot marches, with full field equipment of 25 miles in 8 hours and 9 miles in 2 hours.

• Complete physical fitness test (which at that time included push-ups, a 300-yard run, burpees, a 75-yard pig-a-back carry at a run, and a 70-yard zigzag agility run).

• Complete the infiltration, close combat, and combat-in-cities courses.

• Qualify in the grenade course.

• Pass military subject tests evaluated by a board of officers (subjects included scouting and patrolling, first aid, field sanitation, military discipline and courtesy, etc.).

Upon completion of the testing, only 10 NCOs remained. These 10 were then interviewed to determine who would become the first "expert" Infantryman. On 29 March 1944, LTG Lesley J. McNair, commander of Army Ground Forces, presented the first EIB to Technical Sergeant Walter Bull. During the EIB ceremony, LTG McNair stated, "The Expert Infantry Badge being awarded here today has been set up by the War Department for U.S. Infantrymen who are trained and fit for battle... Infantrymen are killed and wounded in battle in far greater numbers than other branches. I am honored to be with you here. Be proud of your badges and become more expert every day."

While the actual test requirements may have varied slightly over these past 78 years, the EIB program continues to be a tool that leaders can use to measure Infantry Soldiers' level of competence in those critical individual Soldier skills that they will need to succeed in combat.

U.S. Army photo

Photo by Jamie L. Wiechert

At left, an EIB grader evaluates a candidate on his grenade-throwing skills during an EIB test hosted by the 1st Infantry Brigade at Fort Benning, GA. This photo appeared January-February 1962 issue of Infantry.

Above, a 2nd Armored Division Soldier loads his M249 squad automatic weapon while attempting to qualify for the EIB on 27 June 1989 at Fort Hood, TX.

EIB Current Test Requirements

U.S. Army Infantry School Pamphlet 350-6 establishes policies, procedures, and standards for the Expert Infantryman Badge (EIB). The EIB test measures a Soldier's physical fitness and ability to perform to standards of excellence in a broad spectrum of critical infantry skills. Detailed instructions in this pamphlet ensure Army-wide uniformity. EIB training and testing is intended to be rigorous, mission-focused, and conducted under realistic conditions. USAIS Pamphlet 350-6 can be found at https://www.benning.army.mil/Infantry/EIB/.

Prerequisites

Candidate eligibility requirements are listed on page 11 of USAIS 350-6. They include:

- Enlisted personnel must possess a Career Management Field (CMF) 11 or 18 Military Occupational Specialty (MOS) as their primary MOS. Officers must be branch qualified as Infantry or Special Forces.

- Candidates must not possess a suspension of favorable personnel action (FLAG) or bar to continued service (BAR).

- Candidates must have qualified expert with the M4 Carbine or M16 rifle on a 300-meter automated record fire (ARF) range within six months of testing for the EIB in accordance with Training Circular 3-22.9.

Phase I — The EIB Physical Fitness Assessment

Phase II — Land Navigation Assessment

Phase III — Individual Testing Stations

Weapons Tasks

1. Clear, load, fire until a stoppage occurs, perform immediate action, expend remaining ammunition, unload, and clear an M4/M16.

2. Load, fire and unload an M320 Grenade Launcher. Unload and clear an M320 that has not been fired. (Option 1) Clear, load, and fire an M320/M203 Grenade Launcher. Unload, and clear an M320/M203 Grenade Launcher that has not been fired. (Option 2).

3. Clear, disassemble, assemble, and perform a functions check on an M9 Pistol (Option 1). Clear, disassemble, assemble, and perform a functions check on an M17/M18 Pistol (Option 2)

4. Clear, disassemble, assemble, and perform a functions check on an M500 series shotgun.

5. Clear, disassemble, assemble, and perform a functions

Photo courtesy of the 3rd Brigade Combat Team, 25th Infantry Division

Soldiers from the 25th Infantry Division complete expert badge training on Schofield Barracks, HI.

check on an M249 Machine Gun.

6. Clear, load, fire until a stoppage occurs, perform immediate action, expend remaining ammunition, unload, and clear an M249 Machine Gun.

7. Clear, disassemble, assemble, and perform a functions check on an M240 Machine Gun.

8. Clear, load, fire until a stoppage occurs, perform immediate action, expend remaining ammunition, unload, and clear an M240 Machine Gun.

9. Identify hand grenades.

10. Employ hand grenades against troops in the open.

11. Employ hand grenades through a window, door, or bunker.

12. Employ a Claymore mine. Recover a Claymore mine (Option 1 - Electric initiation or Option 2 - Non-electric initiation).

13. Prepare a M98 Javelin for firing. Perform immediate action procedures for a misfire.

14. Clear, load, fire until a stoppage occurs, perform immediate action, expend remaining ammunition, unload, and clear an M2 Machine Gun.

15. Clear, load, fire until a stoppage occurs, perform immediate action, expend remaining ammunition, unload, and clear a MK 19 Machine Gun.

16. Prepare an AT4 for firing. Perform immediate action procedures for a misfire (Option 1). Task: Prepare an M72 launcher. Perform immediate action procedures for a misfire (Option 2). Task: Prepare an M3, 84mm Recoilless Rifle for firing. Perform immediate action procedures for a misfire. Unload an M3, 84mm Recoilless Rifle (Option 3).

Medical Tasks

17. Request a medical evacuation (MEDEVAC).

18. Perform care under fire. Transport and transfer a casualty.

19. Perform first aid to restore breathing and/or pulse of an unconscious adult.

20. Identify types, signs, symptoms, and treatment of heat injuries. Treat for heat stroke.

21. Evaluate a casualty using tactical field care and control bleeding.

22. Identify the signs and symptoms of shock. Evaluate and treat a casualty for spinal injury and shock.

23. Treat a chest wound and tension pneumothorax.

24. Treat a casualty with an open head wound.

25. Perform first aid for an abdominal and eye injury.

26. Perform first aid for a fracture and a burn.

Patrol Lane Tasks

27. Call for indirect fire. Adjust indirect fire. Fire for effect.

28. Move under direct fire.

29. Assemble and load communications security (COMSEC) into a tactical handheld radio using a simple key loader (SKL). Program it for secure, frequency hopping, SINGARS voice communications using a Defense Advanced Global Positioning Receiver (DAGR). Conduct a radio check using an external headset/handset.

30. Load two months of crypto keys into the DAGR and set to use only secure satellites. Enter mission duration, enter waypoints, and create a route. Operate DAGR when satellite signals are weak.

31. Subtly employ realistic camouflage that resembles the background to your skin, uniform, weapon, and equipment. Demonstrate visual signaling techniques.

32. Prepare a range card for a machine gun.

33. Assume mission-oriented protective posture (MOPP) level three. Decontaminate your skin and equipment, assuming MOPP level four.

34. Determine your location. Identify terrain features, colors, and contour lines. Identify topographic symbols.

35. Prepare, mount and operate a set of AN/PVS-14 Monocular Night Vision Device. Identify characters in no light/ low light conditions. Correctly stow AN/PVS-14s.

36. Assemble and load COMSEC into a tactical man packable or vehicle mounted radio, program it for both line of sight (LOS) and satellite (SAT) voice communications, then conduct a LOS radio check. Use this radio to transmit your spot report (SPOTREP).

Phase IV — 12-Mile Foot March and Final Event

Final Event

37. Clear, disassemble, assemble, and perform a functions check on an M4/M16.

Recent EIB AAR Comments and Recommendations

The following are comments/suggestions from recent after action reports (AARs) and other observations from the EIB program manager website:

• **All candidates must be volunteers.** Do not volun-tell unmotivated Soldiers to participate. Doing so not only increases your logistical burden but also takes away time and resources from the Soldiers who want to be there.

• **Conduct a physical fitness assessment prior to EIB training.** Commanders should only recommend Soldiers for testing who have a reasonable expectation of passing all the events. Candidates who are not likely to pass the EIB Physical Fitness Assessment (EPFA) are only taking lane training time away from those who will. A unit AAR suggested also performing a land navigation pre-test (could have lower standards than actual test) and 6-mile validation foot march prior to the start of the training week.

• **In the EIB planning stages, report issues early on and request assistance before it turns into an emergency.** Set a deliberate no later than date for resourcing that allows for senior leadership to identify and assist any resourcing shortfalls.

• **Enforce squad-level training prior to EIB training.** Instill discipline and attention to detail. The tasks are simple but require precision; your unit should be training on them in the weeks leading up to your test. Units cannot rely on EIB to build the mastery of skill sets in the week of train-

ing prior to the actual test. Squads, platoons, and companies MUST train on the basics to maintain individual proficiency. One suggestion is to establish a station of the week where Soldiers can train on one station every five business days; this would be a practical option at all levels that would reap significant benefits.

• **View previous units' AARs and statistics.** These are available as embedded documents on the EIB Fiscal Year Statistics Excel spreadsheet on Mil-Suite. The site can be accessed from the link on the EIB website (https://www.benning.army.mil/Infantry/EIB/Statistics.html).

• **Identify the harder, time-intensive stations and resource them accordingly.** Based on the nature of the task and length to execute, there are a couple of stations in each lane that take considerably longer and/or are more difficult than others. Since some of these stations are inherently more difficult, candidates naturally avoid them, which can cause a pile-up at the end of the day. Identify these long throughput stations and increase the cadre and resources for them to allow greater candidate instruction and hands-on time.

• **Ask questions and utilize subject matter experts.** The EIB program team at the U.S. Army Infantry School is there to help so ask lots of questions. They have a wealth of knowledge, and contacting the team early in the planning cycle will allow units to ask questions and identify "best practices" prior to validation.

Army NCO Strategy

"Winning matters and People are my number one priority. People are our Soldiers — Regular Army, National Guard, and Reserve — their Families, Civilians, and Soldiers for Life — Retirees and Veterans. We win through our people and we must take care of them..."

— GEN James McConville
40th Chief of Staff of the Army

NCO Strategy Purpose: People are the Army's greatest strength and most important weapon system. The Army NCO Strategy will develop and empower NCOs to leverage their knowledge, skills, and behaviors to lead.

I. Introduction:

The Army has transitioned from a focus on counterinsurgency operations to large-scale combat operations (LSCO) and strategic competition. Under the pressure of constant change and rapid technological advances, the NCO Corps developed an enduring and flexible strategy to lead us into the future. The Army NCO Strategy, coupled with This is My Squad (TiMS), is based on the vision of what an NCO must BE, KNOW, and DO to compete and win in multi-domain environments.

The Army NCO Strategy, nested in the guidance and vision of our leaders, reflects our Army values and NCO core competencies. The concept of the Army NCO Strategy will drive the NCO Guide, and the two will evolve in concert to ensure the NCO Corps remains current, relevant, and the best in the world.

II. Army NCO Strategy End States:

NCOs must build cohesive teams that are highly trained, disciplined, and fit that are ready to fight and win, where everyone is treated with dignity and respect. They must also develop Soldiers for Life certified in the Army's Profession of Arms.

Highly Trained: The most elite fighting forces in the world are built upon small units and individuals who are masters of their craft. NCOs continuously develop as leaders through progressive and sequential processes that incorporate training, education, and experience across the three learning domains — institutional, operational, and self-development. The NCO Corps has an enduring and foundational role in unit training. NCOs are responsible for the individual training of Soldiers, squads, crews, and small teams. NCOs conduct standards-based, performance-oriented, battle-focused training.

Example Initiatives: *Expert Infantryman Badge/Expert Soldier Badge/Expert Field Medical Badge requirements review and Master Gunner*

Disciplined: Effective leaders build cohesive teams by emphasizing standards and discipline. NCOs set unit culture by modeling and recognizing acceptable behaviors based on the Army Values, and eliminating unprofessional conduct. NCOs also inspire confidence, build trust amongst team members, and ensure Soldiers have the necessary technical and tactical expertise to be the most lethal combat force in the world. Discipline reinforces the understanding of Army, organizational, and personal standards. Discipline also enables the commitment to professional excellence, which is the hallmark of the Army profession. Soldiers expect their leaders to enforce standards in an impartial, transparent, and consistent manner.

Example Initiatives: *Metrics for Discipline and Social Behavior*

Fit: Leaders must connect with their Soldiers to address stressors and empower them to overcome challenges. To this end, NCOs must support a

Soldiers assigned to the 10th Mountain Division conduct training during an expert badge event at Fort Drum, NY, in September 2021.
Photo by Cierra Clark

comprehensive, integrated, and immersive health and fitness system that generates lethal Soldiers who are mentally, physically, and socially connected capable of competing, fighting, and winning in multi-domain operations (MDO). Holistic fitness recognizes that individual and family well-being depends on interdependent areas, including physical fitness, resilience, training, individual spirituality (self-identity, beliefs, and life purpose beyond self), social interaction (positive connection with others), and physical, psychological, and behavioral health.

Example Initiatives: *Holistic Health and Fitness and Soldier Performance Readiness Centers*

Soldier for Life: NCOs must build and maintain trust throughout the entirety of a Soldier's career. Trust starts at the recruitment phase and initial entry training to reception and integration into the operational force. NCOs reinforce trust throughout a Soldier's career and ultimately their transition from service back to the civilian sector. This process includes talent management to provide NCOs with stability and predictability. Effective talent management strives to balance the Army's needs with Soldier development and personal preferences. NCOs involved in this process will gain a Soldier's lifelong commitment through their honesty and accountability.

Example Initiatives: *This is My Squad, Enlisted Career-long Assessments, and Soldier and Leader Development Tool*

NCO Strategy: This Is My Squad (TiMS)

The NCO Strategy fosters an environment of cohesive teams in which Soldiers want to train and grow together; everyone has a squad. Additionally, TiMS focuses on enhancing the education and technological tools leaders need to care for, train, and resource their units. NCOs must have adequate planning time, resources, and authority to support their missions. Empowering leaders inevitably has a positive impact on negative trends.

TiMS end state: Cohesive teams that are highly trained, disciplined, and fit, ready to fight and win where everyone is treated with dignity and respect.

TiMS objectives enable NCOs to apply the Army NCO Strategy to set the culture within their units, find commonalities within their cohesive teams, actively influence unit members to perform at their fullest potential, and show a positive future.

TiMS objectives are tangible and critical requirements leaders at all levels must build, maintain, and improve. MDO requires a diverse Army that understands people and their environments. TiMS objectives build cohesive teams and defeat the impermissible and problematic behaviors that erode our readiness and the Profession of Arms.

III. Conclusion:

As the Army trains to compete, fight, and win in an environment of strategic competition and potential LSCO, some of our greatest threats come from within. We must work to prevent the harmful behaviors that hurt Soldiers and break trust with the American people: sexual assault and sexual harassment, acts of racism and extremism, and death by suicide. The Army NCO Strategy, coupled with TiMS, prepares today's and tomorrow's NCOs to be the professional and agile leaders our Soldiers need to fight and win our nation's wars.

An NCO with the 2nd Brigade Combat Team, 25th Infantry Division signals his team during a live-fire exercise at Fort Polk, LA, on 27 October 2020.
Photo by SGT Thomas Calvert

New 'Expert Badge' Tab Allows Soldiers to Track Training Status

TRAINING MANAGEMENT DIRECTORATE, COMBINED ARMS CENTER-TRAINING

U.S. Army expert skill badges recognize Soldiers who have proven by test that they meet or exceed the highest standards of knowledge and performance in targeted skills. The Army recognizes three expert skill badges: the Expert Infantryman Badge (EIB), the Expert Field Medical Badge (EFMB), and the Expert Soldier Badge (ESB). Soldiers must meet the exacting standards established by the badge proponents to be awarded the badge. Training to earn an expert badge can occur as part of a unit's training on their mission-essential tasks (METs) as well as through targeted training sessions. Soldiers and leaders need a resource that allows them to quickly review preparatory training results to determine if Soldiers are ready for their specific expert badge test. The Training Management Directorate (TMD) of the Combined Arms Center-Training (CAC-T) recently developed an "expert badge" tab that Soldiers can now access on their personal devices (computer, tablet, smartphone) through the Digital Job Book and the Small Unit Leader Tool.

Background

In October 2021, the U.S. Army Training and Doctrine Command (TRADOC) and Combined Arms Center (CAC) command sergeants major (CSMs) requested that CAC-T enhance the Digital Job Book and the Small Unit Leader Tool to allow Soldiers to view individual tasks associated with a proponent expert badge (EIB, EFMB, ESB). Additionally, the senior NCOs asked that CAC-T modify the Digital Training Management System to allow leaders to record task training evaluations associated with the expert badges in the system. The system changes allow Soldiers and leaders to track task evaluations during the train-up period prior to the actual badge testing event.

The informal evaluations are not used by the badge graders as a part of the test but provide a mechanism by which the Soldiers can see their preparedness for the test.

"This tab isn't designed to be used for the formal testing of these badges; rather it is to be used during the several months leading up to the event to help Soldiers train," said SGM Thomas Conn, CAC-T's senior enlisted advisor.

As an additional support for the Soldiers, the CSMs also requested an "expert badge" page on the Army Training Network (ATN) to provide centralized expert badge information to units and connect Soldiers and leaders to proponent resources and products.

Digital Job Book

The Digital Job Book links Soldiers to their training records in the Digital Training Management System (DTMS). It provides Soldiers the ability to select between six tabs to view their individual training data. The tabs include: Physical Training, Weapons Qualification, Training Schedules, Army Warrior Tasks, Individual Critical Task List, and Tasks. This "read only" function allows Soldiers to verify their training information for accuracy. This makes it easier for Soldiers to account for training and eliminates the requirement for Soldiers to hand-carry training records when moving to a new unit.

The expert badge tab was added between the individual critical task list and tasks tabs. Soldiers who select the expert badge tab are presented with the expert badge information according to their primary military occupational specialty (MOS). Soldiers who are 11 and 18 series (except 18D) are presented the tables for the EIB. Soldiers who are 68 series (and 18D, 38BW4, and 153D) see the EFMB tables. All others see the ESB tables. Badge requirements are organized by lane and then grouped by station/event within the lane.

Small Unit Leader Tool

The Small Unit Leader Tool gives unit junior leaders access to their assigned Soldiers' key training records, including the new expert badge tab information. The tool's modified dashboard includes a new column displaying "expert badge percentage complete" for members of the unit. The percentage complete is based on the number of expert badge tasks that have been trained divided by the number of expert badge-related tasks.

"Leaders can track individual progress to determine who is ready to compete for the badge and where to narrow the focus of training to better prepare Soldiers," SGM Conn said.

Each Soldier's completion percentage is hyperlinked to a detailed view of that Soldier's training status and allows input of expert badge evaluations for that Soldier based on the Soldier's primary MOS. The view defaults to the first expert badge lane, but leaders can select other lanes using
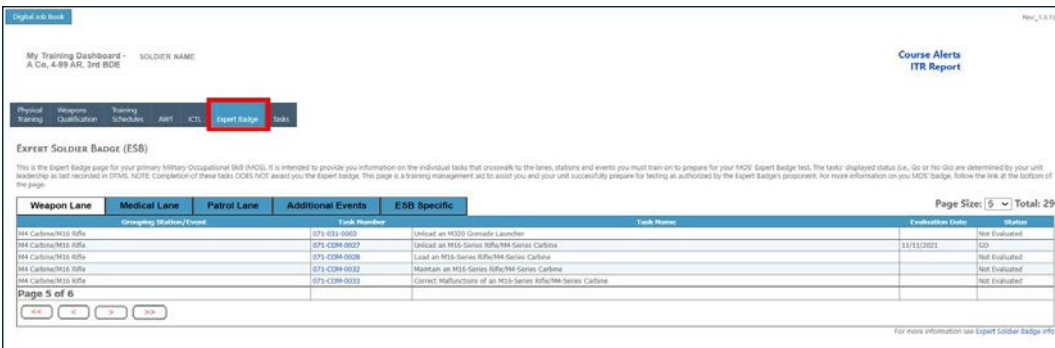
Figure 1 — The Digital Job Book Expert Badge Tab

Figure 2 — Example Small Unit Leader Tool Dashboard

Figure 3 — Example Record Mass Expert Badge Entry

Figure 4 — Example Mass Expert Badge Entry Screen

a drop-down menu selection. Selecting a lane populates a grid with the tasks associated with the lane. Leaders record task evaluations for an individual Soldier directly into the grid. Clicking the "verify changes" and "save changes" buttons completes the action and enters the results into the Soldier's training record.

TMD also added the ability for leaders to upload expert badge training records for their entire unit using the "Record Mass Expert Badge" tab. Leaders may have to manage training records for multiple expert badges based on their Soldiers' primary MOS. TMD designed this tab to allow the leader to select the appropriate badge for the mass entry. The leader selects an evaluation status and a date of the evaluation. The leader then selects the lane for which evaluations are being entered using the drop-down menu, then selects the tasks and Soldiers who received the evaluations. All Soldiers selected will receive the evaluation entered for the tasks selected. Leaders can edit the status of individual Soldiers prior to saving the data to DTMS. The Record Mass Expert Badge function allows leaders to rapidly upload task evaluations for their unit while maintaining the ability to modify individual records if some Soldiers missed the training or did not achieve the standard.

The Small Unit Leader Tool is a "permission-based access" tool. If you are a small unit leader and do not have access to the tool, your DTMS manager has not set the permission for you. Unit commanders determine who can access the Small Unit Leader Tool, and the unit DTMS manager applies the permission for junior leaders to see the small unit information.

Future Enhancements

The Training Management Directorate continues to work on enhancements to the expert badge tab function in DTMS. Currently under development are unit (battalion and below) and larger unit (brigade and above) reports on expert badge training preparation status. TMD is working with operational units to determine the format for the reports to make
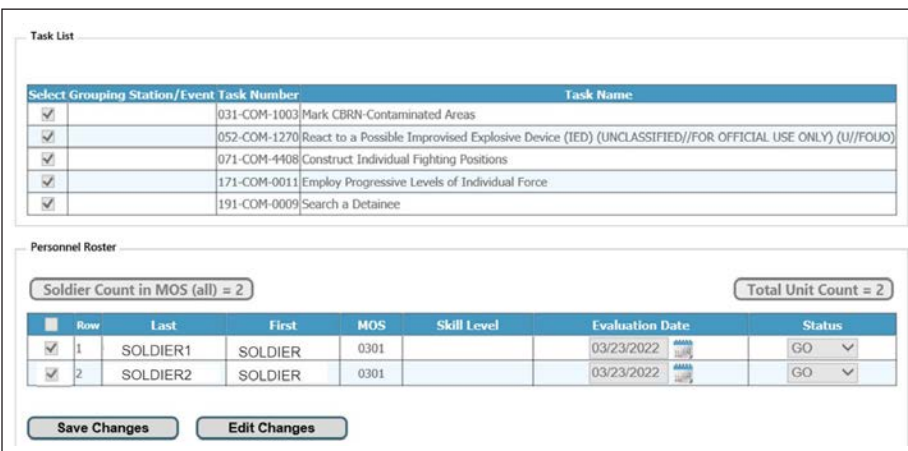
them useful for the field. Additionally, the Army Training Network will have a page dedicated to expert badge training information. The page will provide a single point of entry allowing Soldiers and leaders to find proponent expert badge regulatory guidance, training support packages, and suggested training/testing timelines. The page will not reproduce or replace the proponent pages for each badge. TMD is working to determine what information to include on the ATN expert badge page and is considering resources common to all badges as an option.

Conclusion

The Digital Job Book and the Small Unit Leader Tool are valuable tools to maintain visibility on the training status of Soldiers.

The addition of the expert badge tab enhances the ability of Soldiers and leaders to track their own preparedness prior to testing by maintaining a record of preparation training results. Rigorous training allows Soldiers and leaders to meet the high standards of knowledge and performance in targeted skills required by the three expert skill badges. Accurate training records maintained in DTMS helps them know when they are ready to test.

To learn more about the Digital Job Book and the Small Unit Leader Tool, including tutorials on adding them to your personal devices, visit the ATN homepage at https://atn.army.mil.

The Training Management Directorate is the Army's proponent for training management. TMD manages, develops, and sustains training management doctrine, processes, products, and systems to enable training and training management across the Army's institutional, operational, and self-development training domains. Fundamental products of TMD include the ATN, DTMS, and the Combined Arms Training Strategies.

Photo by SPC Michael Udejiofor

A Soldier assigned to 3rd Battalion, 15th Infantry Regiment, 2nd Armored Brigade Combat Team, 3rd Infantry Division, conducts the M2 machine gun function check task on 7 April 2022 during an expert badge event hosted by the Spartan Brigade at Fort Stewart, GA.

Recently Released Updated Doctrine Publications

The audiobook version of **Army Techniques Publication (ATP) 3-21.51,** *Subterranean Operations* **(November 2019)**, is now available for download or streaming to your mobile device or PC. ATP 3-21.51 provides doctrinal guidance and direction for brigade combat teams and their subordinate elements conducting subterranean operations. This publication explains how effective subterranean operations develop the situation and allow and provide commanders flexibility and adaptability in support of Army and Joint operations. For more information, go to https://rdl.train.army.mil/catalog-ws/view/ATP3-21.51-Audiobook/Index.html.

ATP 3-21.18, *Foot Marches* **(April 2022)**, provides the doctrinal framework and techniques for conducting foot marches. It describes foot march fundamentals and considerations; types of foot marches; foot march planning, preparations, execution, and assessment; duties and responsibilities; training for the march; and discipline, hygiene, and safety. This publication is available for download at https://armypubs.army.mil/epubs/DR_pubs/DR_a/ARN35163-ATP_3-21.18-000-WEB-1.pdf.
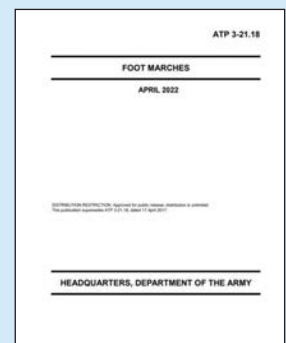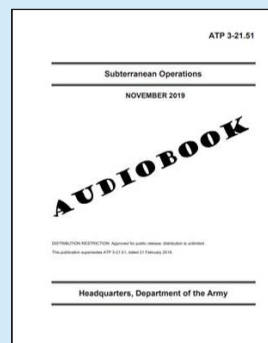
The Importance of Individual Training

CSM (RETIRED) CHIP E. MEZZALINE

NCOs are responsible for individual training. Officers have entrusted NCOs to accomplish this mission. During the period of the Continental Army, Inspector General Friedrich von Steuben standardized NCO duties and responsibilities in his "Regulations for the Order and Discipline of the Troops of the United States." His work, commonly called the "Blue Book," set down the duties and responsibilities for corporals, sergeants, first sergeants, quartermaster sergeants, and sergeants major, which were the NCO ranks of that period. Although NCO duties and responsibilities have evolved since the Revolutionary War, the "Blue Book" paved the way, recognizing that individual training is sergeant's business. This is a point that is clearly specified in today's modern doctrine such as Field Manual 7-0, *Training*, which states that NCOS "set the foundation for Army training. They train Soldiers, crews, and small teams to be battle-ready. They provide crucial input and advice to the commander on what is trained and how it is trained. This ensures the organization trains on its most important tasks down to the individual Soldier."

NCOs must remain up to date with new equipment and technology. Our Soldiers must be well prepared to operate within their commander's intent and accomplish their assigned mission. Preparing our Soldiers begins with individual training. NCOs accomplish this through tough and realistic individual and collective task training. This enables us to meet the challenges of tomorrow's ever-changing environment. The Army will continue to field new equipment, and NCOs must remain on the cutting edge of understanding and mastery of that equipment. We must embrace technology and use it to our advantage; however, we must also maintain proficiency in skills and tasks that are not reliant on technology or technical systems. Ensure you stay proficient with those tasks that might be considered "old." The fundamentals acquired from that basic proficiency will enable you to become a more adaptive leader. A couple of examples quickly come to mind; first, the use of satellite-based navigational devices has become the standard for getting from one point to another. We must also remain proficient with a map, protractor, and a compass. Your weapon, if properly zeroed, should still be accurate without your assigned optics. You can always use your iron sights. Embrace technology and incorporate it into your individual training but also ensure continued proficiency on basic (analog) Soldier skills that enable survival in any environment.

Individual training is accomplished by training our Soldiers on the individual and warrior task list. Ensure that you are training your Soldiers on the correct tasks. Check with your NCO support channel and chain of command to understand your unit's critical collective task list (CCTL) and mission-essential task list (METL). Work with other NCOs to ensure that you stay proficient on your own individual and warrior tasks. Here are a few keys to success when it comes to training. Prior to the training, always set your Soldiers up for success. Let your Soldiers know what is expected, ensuring that they know what training will be conducted by providing them with the task, conditions, and standards. Keep them informed of the uniform and equipment standards. Have a designated area to post timelines and training schedules for training. Foster a training environment that is conducive to learning and building trust. You can do this by letting your Soldiers know that it is alright to make mistakes. If you embarrass your Soldiers, they will become hesitant. In most cases, it only takes patience and repetition to achieve success. Ensure that they meet the training objectives before training is complete. When planning individual training, always ensure you have included time for retraining as necessary. Conduct an after action review after every training event. This will allow your training to become more effective.

Individual training is meant to focus on individual and warrior tasks. Individual and warrior tasks are those responsibilities that must

be performed by the individual Soldier in order to perform a larger collective task. Soldiers must be accurate when firing their individual weapon. The task associated with this individual responsibility is 071-COM-0030, Engage Targets with an M16-series Rifle/M4-series Carbine. Soldiers must accomplish this task semi-annually in order to remain proficient. Once individual tasks are accomplished to standard, the team, squad, and section are better prepared to conduct training on a collective task. The task to engage targets with an M16-series Rifle/M4-series Carbine directly supports the collective tasks of react to an ambush. Warrior tasks are a collection of individual Soldier skills deemed critical to Soldier survival by the Army. Weapons training, tactical communications, urban operations, and first aid are all examples of categories of warrior tasks. When we reach the desired level of proficiency with individual tasks, we can then focus on battle drills. Battle drills are collective actions rapidly executed by the team, squad, or section without applying a deliberate decision-making process. Some examples of battle drills are react to ambush, react to chemical attack, and evacuate injured personnel from a vehicle.

The primary manuals for individual and warrior task training are Soldier training publications (STPs) and the Soldier's Manual of Common Tasks (SMCT). STP 21-1 SMCT directly supports individual and warrior task training. You must use these manuals to plan, conduct, and evaluate individual and warrior task training. The manuals include the Army warrior training plan for Warrior Skills Level 1 and task summaries for all skill level (SL) 1 critical common tasks that support your unit's wartime mission. The SMCT manual is the only authorized source for individual and warrior task training. It is our responsibility to ensure that our Soldiers have access to the SL 1 STP SMCT within our team, squad, section, platoon, and company areas.

There are few significant individual responsibilities for those involved with individual and warrior task training. Every Soldier must be able to perform the individual tasks that their organization has identified based on the unit's CCTL and METL. The individual Soldier is responsible for being prepared to conduct individual and warrior task training at any time the opportunity presents itself. Some NCO responsibilities are to help identify, plan, prepare, execute, and assess the individual training that supports the unit's CCTL and METL.

Some of the more specific responsibilities of the NCO include making individual and warrior task training your primary focus and do not become distracted. Your Soldiers will know what is important to you by where you spend your time. When conducting individual training, follow the steps in the SMCT. Set objectives for the training that you will conduct. Ensure that you plan and resource the training and take into consideration the number of personnel being trained, the time it will take to train them, and the training aids that are required. For more senior NCOs, focus on the following: certify your trainers (ensuring that they can accomplish the task to standard), assist with ensuring that

> *Many times NCOs find themselves looking for time to train their Soldiers. Today's Army is busy. Units should always set aside time on the training calendar to conduct "sergeant's time" training.*

the training being conducted is both effective and efficient, and most importantly, participate in the training. All leaders should conduct risk management and take into consideration the environmental and safety concerns which could affect your training.

Many times NCOs find themselves looking for time to train their Soldiers. Today's Army is busy. Units should always set aside time on the training calendar to conduct "sergeant's time" training. When sergeant's time training is conducted correctly, it allows NCOs to focus on the necessary individual training while empowering them to take ownership of their team, squad, etc. Get the attention of your commander and senior NCOs and work with them to get this time blocked on the training calendar to enable you to train your Soldiers on their individual tasks. Even though it is called sergeant's time training, include your officers in this training. This is a great opportunity for them to see how valuable this training is and will help in their understanding of why it is so important when they become a commander; plus it will ensure that they too are proficient as a Soldier.

A leader should always know what resources are available for use when conducting individual training. You must use current doctrine when conducting individual training. Most field manuals have been updated to reflect current doctrine. A great source to find the most recent and emerging Army doctrine publications, Army doctrine reference publications, field manuals, and training circulars is the Army Doctrine and Training Publications website (http://armypubs.army.mil/doctrine/index.html). This website provides drop-down boxes that allow you to access administrative regulations, doctrinal references, technical manuals, Soldier training publications, the Soldier's Manual of Common Tasks, and Army doctrine reference publications. Another useful website is the Army Training Network (https://atn.army.mil/). This site also includes the Combined Arms Training Strategies (CATS) and allows you to search for a task by proponent or by the type of unit. This is a great resource for planning and conducting home station training.

Editor's Note: *This article was first published in* From One Leader to Another*, edited by CSM Joe B. Parson (Combat Studies Institute Press). Read other articles in the volume at* https://www.armyupress.army.mil/Portals/7/combat-studies-institute/csi-books/FromOneLeadertoAnother.pdf.

At the time this article was written, **CSM Chip E. Mezzaline** was serving with the Joint Readiness Training Center Operations Group at Fort Polk, LA. He has since retired from active duty and is currently working as an Department of the Army Civilian at Fort Benning, GA.

INFANTRY WEEK 2022

International Sniper Competition
4-6 April

1st Place – 2nd Special Warfare Training Group (Airborne)
2nd Place – 3rd Battalion, 75th Ranger Regiment
3rd Place – U.S. Marine Corps School of Infantry-West
4th Place – 1st SWTG (A)
5th Place – Colorado Army National Guard
6th Place – 1st Battalion, 75th Ranger Regiment
7th Place – U.S. Coast Guard
8th Place – Oklahoma Army National Guard
9th Place – Arkansas Army National Guard
10th Place – Sweden (B)

(Top photo) A sniper team engages targets during the "Mystery Box" event during the first day of the International Sniper Competition on 4 April at Fort Benning, GA. (Photo by Markeith Horace)

(Above) A sniper team completes the "Know Your Offset" event on Fort Benning's Galloway Range on 4 April. (Photo by SSG Austin Berner)

(At right) A competitor zeroes his rifle prior to the start of the International Sniper Competition on 3 April. (Photo by SSG Austin Berner)

(Below) A sniper team engages targets during the Red Ants III event on 5 April, the second day of the competition. (Photo by Patrick A. Albright)

See more photos all from the Infantry Week events at www.fortbenning.smugmug.com.

Lacerda Cup
All Army Combatives Championship
5-8 April

The **4th Infantry Division** was named overall champion of the 2022 Lacerda Cup.

The following are the results from the individual championship bouts:

Bantam Weight – SSG Sharon Jacobson, 4th ID

Fly Weight – 1LT Sean Badua, 316th Cavalry Regiment

Light Weight – SPC Zachary Nicholson, 4th ID

Welter Weight – 1LT Dylan Van Sickell, 10th Mountain Division

Middle Weight – SPC Grant Blumenthal, Ohio Army National Guard

Cruiser Weight – 1LT Norman Conley, 3rd Battalion, 75th Ranger Regiment

Light Heavy Weight – CPT Zachary Bregovi, 4th ID

Heavy Weight – SPC Hector Urbano, 4th ID

(Clockwise from top left) Soldiers competing in the Lacerda Cup at Fort Benning grapple during the preliminary round of the competition on 5 April. (Photo by Markeith Horace)

1LT Dylan Van Sickell and SPC Anthony Skulina compete during the welter weight championship bout on 7 April. (Photo by Patrick A. Albright)

SSG Sharon Jacobson kicks her opponent during a bout on the second day of the Lacerda Cup. (Photo by SGT Matthew Rabahy)

A member of the 3rd Infantry Division combatives team battles his opponent during one of the Lacerda Cup's semi-final bouts on 6 April at Fort Benning. (Photo by PFC Elsi Delgado)
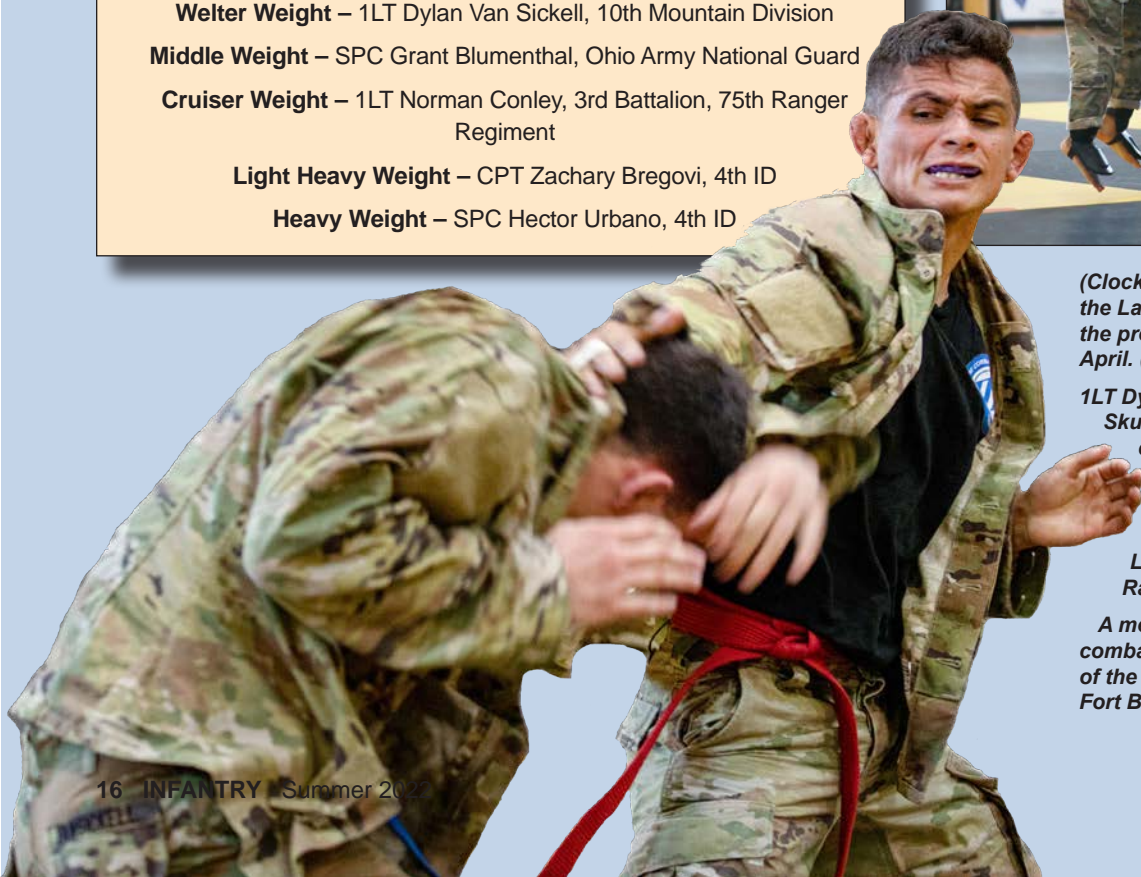
38th Annual David E. Grange Jr.
Best Ranger Competition
8-10 April

1st Place – CPT Joshua Corson and CPT Tymothy Boyle, 75th Ranger Regiment

2nd Place – SGT Nathan Buck and SGT Enrique Caballero, 75th Ranger Regiment

3rd Place – SSG John Goldsmith and SPC Kory Fogarty, 75th Ranger Regiment

4th Place – SGT Jonathan DeGuzman and SGT Alex Mauch, 75th Ranger Regiment

5th Place – MAJ Michael Blanchard and MAJ Brian Slamkowski, U.S. Army Training and Doctrine Command

(Clockwise from top) SSG Robert McCain from the Airborne and Ranger Training Brigade completes the Combat Water Survival Assessment on the last day of the 2022 Best Ranger Competition. (Photo by SPC Ethan Scofield)

A team from the 75th Ranger Regiment completes the Selby Urban Assault Course on Day 1 of the competition. (Photo by Patrick A. Albright)

The winners of the 2022 Best Ranger Competition, CPT Joshua Corson and CPT Tymothy Boyle, cross the finish line of the competition's last event on 10 April. (Photo by Patrick A. Albright)

Team 29 from the U.S. Army Special Operations Command negotiates an obstacle during Day 1 of the competition. (Photo by Patrick A. Albright)

A team swims back to shore during the helocast event at Victory Pond on 10 April. (Photo by Patrick A. Albright)

Soldiers take cover behind an Infantry Squad Vehicle and return fire during the Initial Operational Test at Fort Bragg, NC.
Photo by Tad Browning

Restoring Tactical Mobility to the Light Infantry Division

MG PATRICK DONAHOE
COL RYAN J. MORGAN

"The Army is boldly transforming to provide the Joint Force with the speed, range, and convergence of cutting-edge technologies that will be needed to provide future decision dominance and overmatch for great power competition."

— **GEN James McConville**
Army Chief of Staff

The centrality of large-scale combat operations remains ground combat. The Army needs that capability in order to bring the close combat force to bear to close with the enemy. This is the only way to effectively defeat enemy ground forces. The ground maneuver team, as the leading edge of the joint force, is and will continue to be the defeat mechanism for enemy ground forces into the foreseeable future. The Army accomplishes this as it always has: with fire and maneuver against enemy formations to

defeat them, seize critical terrain, and to control populations. Doing this delivers sustainable political outcomes for our nation. As the author T.R. Fehrenbach famously quoted in his book *This Kind of War*, "You may fly over a land forever; you may bomb it, atomize it, and wipe it clean of life — but if you desire to defend it, protect it, and keep it for civilization, you must do this on the ground, the way the Roman Legions did — by putting your soldiers in the mud."[1]

Modernization of infantry formations with the Infantry Squad Vehicle (ISV), Light Reconnaissance Vehicle (LRV), and Mobile Protected Firepower (MPF) provides the tactical mobility required for success against peer enemies.[2] The increasing range, precision, and lethality of the modern battlefield demands increasing the tempo of operations, thereby enabling freedom of action against peer enemies. Moving infantry formations via ISVs allows commanders to greatly increase the tempo of operations by moving quickly over extended distances, out of contact with the enemy, to positions of advantage. Securing the movement of mobile infantry formations requires scout and cavalry organizations

equipped with an effective LRV, enabling the appropriate combination of mounted and dismounted reconnaissance and security. MPF provides precision, long-range, direct fire lethality to defeat crew-served weapons, field fortifications, and light vehicles, permitting the rapid transition of infantry from movement to maneuver. It also supports infantry in the close fight. The ISV, LRV, and MPF are essential components of infantry force modernization, providing required mobility, security, and firepower to defeat peer enemies.

The U.S. Army is undertaking its largest modernization effort in a generation. Not since the development of AirLand Battle and the Big 5 has the Army pursued a comprehensive modernization effort for how we fight (doctrine), force design (organization), and equipment (materiel).[3-4] Central to the entire modernization effort is moving the force from the counterinsurgency (COIN)-centric force of the past 20 years to a force developed to succeed in large-scale combat operations. Whether in Europe or the Indo-Pacific, the Army is changing to meet the threat.

Historically, the U.S. Army has been a division-centric force consisting of a combination of maneuver brigades, cavalry regiment, multiple field artillery batteries, engineer battalion, and various signal, medical, and support organizations. This design evolved over time between World War I and Operation Iraqi Freedom in early 2003. Operations field manuals in the 1930s and 1940s described the division as the unit that corps use to execute maneuver and the basis of organization of the field force. Today's infantry division performs a number of roles, most of which center around consolidating Joint capabilities, task-organizing maneuver brigades and a headquarters around which a Joint task force is formed.[5] After 20 years of employing modular brigade combat teams, the Army is moving forward with divisions as the tactical unit of action. The Army's concept for multi-domain operations describes the division as a tactical headquarters that conducts maneuver and commands multiple maneuver brigades and enablers to dominate the close fight.[6]

The Army must continue to focus on our pacing threats: peer enemies who can contest us in all domains. We must refocus both training and doctrine on how to defeat them. In doing this, the Army must be clear-eyed in how it would confront the People's Liberation Army's (PLA's) mechanized brigades on the landmasses in the Pacific as well as how it would close the last mile against a Russian battalion tactical group on Eastern European terrain — both done in concert with our friends and allies. China and Russia are the most capable peer threats that face the United States and currently possess capabilities that are comparable to those of the United States. Both China and Russia have spent the recent decades investing in modernization efforts that close the gap with the United States with capabilities that span all domains. In the tactical fight, both Russia and China specifically use integrated fires to provide stand off and avoid close combat.[7]

Since the late 1970s, the PLA has moved to transform its military from a mechanized, infantry-heavy force to what PRC President Xi Jinping calls a "world class" force by 2049. The PLA continues to develop better fire support systems from sensor-to-shooter capability as well as move away from aging, towed artillery and mortar systems.[8] Russia's military continues to use large and extensive exercises, such as Zapad 2021, to test and refine its military concepts. Zapad 2021 was a combined exercise with the Belarusian military that included the introduction of new robotics and air-mobile capabilities.[9] These are the same concepts that were on display during the Russian military's actions into Ukraine in 2014. Despite these advances, both China and Russia continue to find challenges with their abilities to develop the reconnaissance capabilities necessary to integrate effective targeting.[10]

Recognizing the United States' peer threat's advancements in combat operations compared with U.S. COIN and stability operations, it was clear that the PLA and Russian militaries were closing the capability gap. In 2019, the Combined Arms Center conducted a study of large-scale

Figure 1 — Infantry Division Mobility Strategy
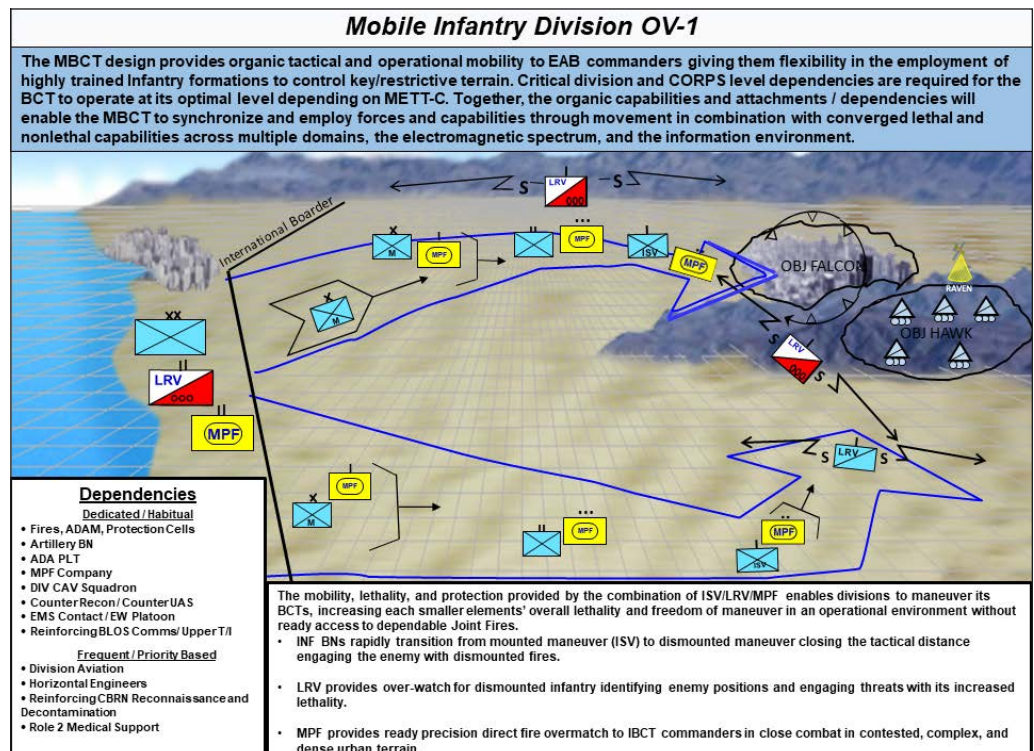
combat operations that identified the need to significantly change how the Army approaches conflict against peer threats.[11]

Achieving success in the complex operational environments against peer threats like China and Russia requires a comprehensive approach to combat operations across multiple echelons. One significant problem to overcome is enemy anti-access and area denial (A2AD) which limits our freedom of action.[12] One approach is for a formation to be able to conduct movement and maneuver out of contact. Field Manual 3-96, *The Brigade Combat Team*, explains a turning movement is best suited to a formation that has a high degree of tactical or operational mobility. The publication goes on to define a turning movement as "…a form of maneuver in which the attacking force seeks to avoid the enemy's principle defensive positions by seizing objectives behind the enemy's current positions thereby causing the enemy force to move out of their current position to divert major forces to meet the threat."

There are a few historical examples illustrating this idea. The Inchon landings, during the early months of the Korean War, are one example at the operational level. GEN MacArthur enjoyed the freedom of maneuver, out of contact, to land a turning force behind the enemy, forcing them to leave their primary positions. Another example of maneuver out of contact to gain a tactical advantage would be the 101st Airborne Division's air assault to cut off the Iraqi army during Operation Desert Storm.

The need for infantry divisions to be able to conduct maneuver is further highlighted by COL Huba Wass de Czege in a 1985 *Infantry* article. In his article, COL Wass de Czege describes three missions, or capabilities, that are essential for infantry formations. The first is the ability to keep pace with armored and mechanized forces; next is for Infantry formations to be able to seize and hold complex terrain. And finally, they need to be "strategically, operationally, and tactically highly mobile…" He goes on to describe this last capability in detail. When conducting offensive operations, large infantry forces should be able to advance rapidly across open terrain to conduct attacks, seize key terrain, or attain positions of advantage over an enemy force.[13]

The capability of a combat force to enter an area of operation in a mobile, lethal, combat-focused formation provides theater or Joint force commanders the ability to present an enemy force multiple dilemmas. In large-scale combat operations, success of the division relies on freedom of maneuver to gain the advantage and engage in close combat. The ability for a division to outmaneuver an enemy force is contingent on employing brigades equipped with combat vehicles, mobile reconnaissance formations, and improved firepower.[14]

The idea of how a "light division" will fight in the future

Photo by Michael J. Malik

The Infantry Squad Vehicle carries a nine-man squad, packs a payload of 3,200 pounds, can be externally sling loaded under Black Hawk and Chinook helicopters, is air droppable, and provides exceptional mobility over all terrain.

centers around three pillars: entry into the area of operation; operational and tactical movement; and maneuver against the enemy. For the purposes of this discussion, the concept of a joint forcible entry operation is set aside, and entry into the area of operation will be through an offset port of entry. Entry in this offset manner allows the force to consolidate its combat power before making contact with enemy air defense systems and indirect fires. This light force, having built its combat power, transitions to offensive operations. A combination of capabilities in the form of three vehicle platforms (ISV, LRV, and MPF) enables the light division to conduct movement and then transition to maneuver.[15]

Infantry battalions are enabled to move over operational distance with the Infantry Squad Vehicle. At the appropriate point, these ISV infantry formations can rapidly transition from mounted movement to dismounted maneuver and engage the enemy. Reflecting back on the infantry battalion and rifle company table of organization and equipment (TO&E), these units require 100 percent of their TO&E equipment to be transported in a single lift. The current IBCTs are only about 60-percent mobile. Meaning that only 60 percent of an IBCT's Soldiers have an assigned seat in a vehicle. The 40 percent of Soldiers not mobile are predominantly those in the rifle companies of infantry battalions.[16] Adding the ISV to infantry brigades increases operational mobility for combat formations. This capability now enables infantry formations to move rapidly over extended distances bringing enhanced survivability through improved mobility.

To allow the enhanced mobility of the ISV-equipped formations, the division must provide a reconnaissance and security capability ahead of the ISV formations. Division cavalry formations equipped with Light Reconnaissance Vehicles provide the necessary all-weather, persistent security by identifying enemy positions, confirming or denying the division commander's information requirements, and creating decision space for the movement and maneuver of the division's infantry brigades. The LRV is envisioned as the purpose-built reconnaissance and security vehicle for the IBCT or division

Graphic courtesy of Program Executive Office Ground Combat Systems

The Mobile Protected Firepower will provide IBCTs with long range, mobile, protected, precision firepower.

cavalry squadrons. When the infantry formations dismount to maneuver on enemy objectives, the LRV-enabled cavalry formations provide overwatch and security, allowing freedom of maneuver for dismounted formations.

The final element in maneuvering on enemy objectives is the Mobile Protected Firepower. The MPF provides precision, long-range direct fire to support infantry maneuver while retaining freedom of action. The MPF has the range and lethality to reduce bunkers and hardened sites, allowing infantry freedom of maneuver. This is effective in open, restrictive, and urban terrain. The MPF provides the direct fire overmatch to brigade and battalion commanders in close combat, allowing IBCTs to maintain momentum.

The mobility, security, and lethality provided by the combination of the ISV, LRV, and MPF enable infantry divisions to maneuver its BCTs, increasing each subordinate elements' overall lethality and freedom of maneuver. The infantry's tactical mobility challenges are mitigated, speed and range

of action are increased, and the enemy is placed in a position of disadvantage.

The modern battlefield is changing. The use of robotics and unmanned systems to deny ground forces access to the battlefield continues to grow. As the U.S. Army moves forward toward Army 2030 and Army 2035, what will not change is the last mile of combat. It will still belong to the ground maneuver team. Rifle companies and platoons will remain at the center of our infantry formations, and Soldiers in the rifle squad will still stand on the objective.

There is still a desire, even coming out of a conflict where we have been challenged in the sand and complex terrain, to look for a method of warfare that is antiseptic. This being reminiscent of the days of the Revolution in Military Affairs and the false promises of knowing all and being able to vanquish foes by precision-guided munitions against easily spotted and classified enemies. Over the last 20 years, we recognized the need of precision targeting tied to a robust sensor grid to defeat our adversaries. While this continues to hold today and into the future, it is not enough to win on the battlefield. Only by seizing terrain and controlling populations can we achieve sustainable outcomes consistent with our national interests.

At Fort Benning, our focus is on designing combat, maneuver brigades that will fight as elements of Army divisions. While we recognize that technological advantages and the rise of autonomous systems evolve the character of war, they will not sanitize the battlefield against a peer adversary, nor provide easy solutions to ground combat. There will remain the necessity of ending the firefight in close combat. It remains imperative that our Army delivers the combined arms, ground maneuver force to a position of advantage with the initiative to defeat enemy ground forces, seize critical terrain, and control populations.

Notes

[1] T.R. Fehrenbach, *This Kind of War: The Classic Korean War History* (NY: Simon & Schuster Books For Young Readers, 1994).

[2] The capabilities of these three platforms, which enhanced the lethality, mobility, reconnaissance, and security of infantry brigades, were collectively endorsed by the Secretary of the Army and Chief of Staff of the Army in the 2018 Army Modernization Strategy.

[3] AirLand Battle was the primary doctrine implemented by the U.S. military in the early 1980s; it emphasized the coordinated offensive operations

Figure 2
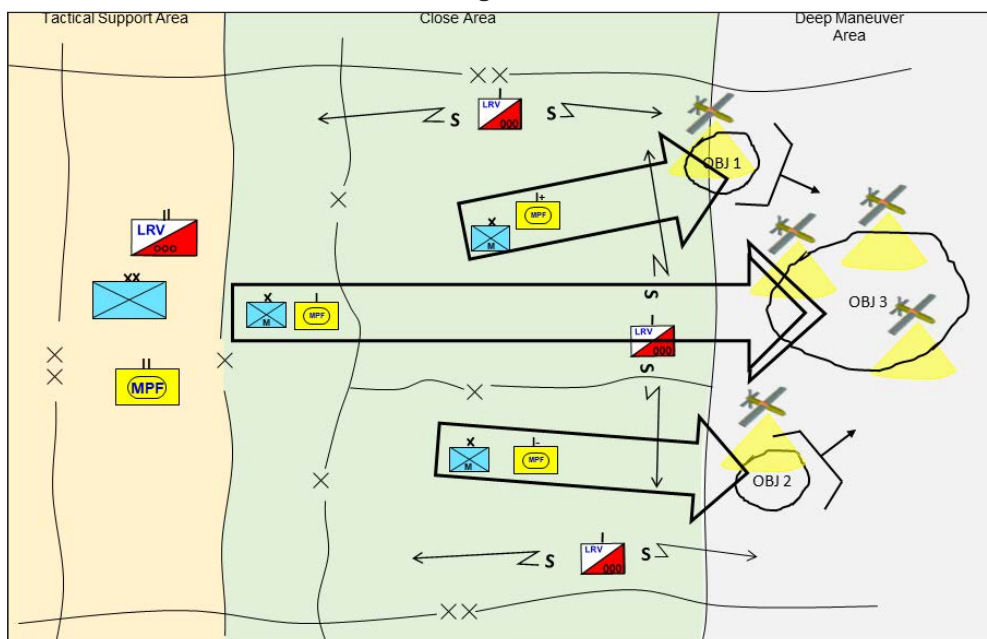
between the Army and Air Force with close and deep attacks.

⁴ The Big 5 is the common name for the core Army programs facilitating AirLand Battle in the late 1970s and early 1980s. The programs are: the AH-64 Apache Attack Helicopter, UH-60 Black Hawk Helicopter, M1 Abrams Tank, M2 Bradley Fighting Vehicle, and Patriot Missile System.

⁵ Dennis S. Burket, "The Evolution of the Division Formation," in *Large-Scale Combat Operations: The Division Fight* (Fort Leavenworth, KS: U.S. Army Command and General Staff College Press, 2019), 9, 12.

⁶ Army Futures Command (AFC) Pamphlet 71-20-1, *Concept for Maneuver in Multi-Domain Operations 2028*, 7 July 2020, 45.

⁷ AFC Pamphlet 71-20-2, *Concept for Brigade Combat Team Cross Domain Maneuver 2028*, 14 August 2020, 14-19.

⁸ China Primer: The People's Liberation Army (PLA), Congressional Research Service, 5 January 2021, https://crsreports.congress.gov/product/pdf/IF/IF11719.

⁹ Russian Military Exercises, Congressional Research Service, 4 October 2021, https://crsreports.congress.gov.

¹⁰ AFC Pamphlet 71-20-2, 20-21.

¹¹ Burket, "The Evolution of the Division Formation," 11-12.

¹² U.S. Army Training and Doctrine Command (TRADOC) Pamphlet 525-3-1, *The U.S. Army in Multi-Domain Operations 2028*, 6 December 2018, 16.

¹³ COL Huba Wass de Czege, "Three Kinds of Infantry," *Infantry* (July-August 1985): 11-13.

¹⁴ AFC Pamphlet 71-20-2, 26-27.

¹⁵ The Joint Warfighting Assessment (JWA) 17.1 Final Synopsis 'O' further supports this concept. Using the Combat Vehicle Modernization Strategy, the 17.1 Synopsis describes the IBCT conducting an offset insertion avoiding enemy A2AD systems; LRV cavalry formations screen ahead of infantry employing ground mobility vehicles (now ISVs) to move extended distances. Finally,

> *As the U.S. Army moves forward toward Army 2030 and Army 2035, what will not change is the last mile of combat. It will still belong to the ground maneuver team. Rifle companies and platoons will remain at the center of our infantry formations, and Soldiers in the rifle squad will still stand on the objective.*

the MPF provides direct fire support to dismounted infantry during maneuver onto the objective.

¹⁶ Army Comprehensive Guide to Modularity, TRADOC, Task Force Modularity, 8 October 2004, Chapter 9.

MG Patrick Donahoe served in 23 different assignments before assuming his current position as the Commanding General of the Army's Maneuver Center of Excellence at Fort Benning, GA. A native of New Jersey, he attended Villanova University where he studied History and received his commission as an Armor officer upon his graduation. MG Donahoe is a graduate of the U.S. Naval War College, where he earned his master's degree in National Security and Strategic Studies, and was a National Security Fellow at Harvard University's John F. Kennedy School of Government.

COL Ryan J. Morgan began his assignment as the director of the Army Capabilities Manager - Infantry Brigade Combat Team in June 2020. COL Morgan was commissioned into the Infantry from the U.S. Military Academy at West Point, NY, in 1997. He holds a bachelor's degree and master's degrees in strategic studies from the Army War College and public administration from the City University of New York.

Opinion: Create a Maneuver Robotics Master Trainer Course

JOHN DUDAS

As the Army moves toward building a multi-domain operation (MDO)-ready force, new and exciting capabilities are being fielded to brigade combat teams (BCTs). These technologies will enable tactical units (battalion and below) to achieve overmatch and facilitate the conduct of cross-domain maneuver against peer or near-peer threats. Some of these capabilities include small unmanned aircraft systems (SUAS) and ground robotics such as the Squad Multi-purpose Equipment Transport (SMET).

Fielded SUAS capabilities will provide maneuver units an organic reconnaissance and surveillance tool that aids Soldiers and leaders in developing situational understanding and decision making, resulting in tactical advantages. Ground robotic systems, such as the SMET, will provide small units at battalion level and below with an unmanned cargo transport capability which assists in reducing the dismounted Soldier load.

With the current and projected fielding of various air and ground robotic systems to maneuver units, there are potential training and leader integration challenges. Although these new capabilities are purposely designed to be simple and intuitive to employ, a thoughtful training strategy will be necessary to create proficient operators as well as confident leaders to employ these systems effectively. Part of this training strategy should include a consolidated training course that produces maneuver robotic systems master trainers.

Challenges

An unwelcome result of integrating new capabilities into maneuver units is the overburden of Soldiers due to competing roles with critical branch-specific individual and collective tasks. Commanders and leaders at the tactical level already have a difficult challenge in managing limited time, resources, and personnel to train and maintain their unit core tasks. The addition of robotic systems (complex or not) only adds to this challenge.

After air and ground robotic systems are fielded, commanders will need subject matter experts and trainers to help instruct, qualify, maintain, and manage unit operators and systems. A unit robotics master trainer would fill that role. Until future robotic systems are fielded with an inherent artificial intelligence allowing them to operate with full or near-full autonomy, Soldiers will need training to operate these systems.

Purpose

The purpose of establishing a maneuver robotics master trainer course is to support commanders in the field by providing instruction to selected leaders whose additional duty is to train Soldiers to operate and employ air and ground robotic systems.

Recommended outcomes for a master trainer course are to produce graduates who have the ability to:

1. Train and evaluate maneuver robotic operators, resulting in a strong bench of qualified Soldiers;

2. Advise commanders on the capabilities and limitations of unit assigned air and ground robotic systems; and

3. Assist commanders in developing and managing unit robotic training plans in accordance with applicable policies and regulations.

The ideal location for this course is at the Maneuver Center of Excellence (MCOE) at Fort Benning, GA. This would be logical since many of the future air and ground robotic systems being fielded fall under the proponent of the MCOE. Fort Benning is also the home of the SUAS Master Trainer Course, which could be expanded to train both air and ground robotic systems.

U.S. Army photo

The Squad Multi-purpose Equipment Transport program aims at lightening Soldiers' loads by providing infantry battalions a robotic "mule" capability.

Capabilities to be Trained

Although the instructional goals of a master trainer course are to focus on developing unit training plans, instructing and qualifying new operators, and providing subject matter expert advice to commanders, system-specific training is also necessary to enable and enhance this instruction. In September 2020, the Robotics Requirements Division (RRD) from the Maneuver Capabilities Development and Integration Directorate (MCDID) at Fort Benning published the U.S. Army SUAS Strategy. Discussed and outlined in this strategy are five robotic systems that are projected for fielding to the BCTs. In order to fully provide training support to the SUAS Strategy, it is recommended that these five systems be covered during the master trainer course. See Table 1 for a brief outline and summary of the five robotic systems.

Future Systems

As maneuver concepts and materiel capabilities advance and push future air and ground robotic systems into the field, the course must adapt. Updated instruction could potentially train Soldiers in counter-unmanned aircraft system (C-UAS) equipment and employment techniques, SUAS swarm employment, and even the use of autonomous targets for unit range operations.

Summary

A Maneuver Robotics Master Trainer Course (MR-MTC) should be planned and programmed as soon as possible. New materiel system fielding takes time, and the robotic capabilities forecasted for the BCTs are no different. There is now a window of opportunity to develop and establish a master

Table 1 — Robotic Systems

Robotic System	Description	Characteristics
Soldier Borne Sensor (SBS)	The SBS is a nano-UAS that provides a squad with an organic "quick-look" capability. The system allows squads to conduct reconnaissance and observe targeted areas of interest while remaining out of enemy contact. Units first received the SBS in 2019, and fielding is continuing.	Aircraft Weight: < 6 ounces Total system weight: < 3 lbs. Range: 1 km Endurance: 15 min
Short Range Reconnaissance (SRR)	The SRR is a platoon-level SUAS that provides advanced situational awareness and a stand-off capability enabling reconnaissance, target detection, and acquisition. The SRR has vertical take-off and landing (VTOL), hover, perch, and stare capabilities.	Weight: 3 lbs. Range: 3 km Endurance: 30 min Perch & Stare: 60 min
Medium Range Reconnaissance (MRR)	The current fielded MRR platform is the RQ-11B Raven and serves as a company-level SUAS. The Raven has been in service for several years and is undergoing an upgrade. The new RQ-11C will be modernized with a new hand controller, sensor gimbal, and longer battery life.	Weight: 4.5 lbs. Range: 10 km Endurance: 1.5 hr
Long Range Reconnaissance (LRR)	The currently fielded LRR is the Puma SUAS. This hand-launched SUAS is used as a battalion-level surveillance and intelligence gathering tool that uses an electro-optical camera and infrared camera. A new LRR SUAS is in development.	(Future LRR platform TBD) Weight: 15 lbs. Range: 10 km Endurance: 2 hr
Small Multi-Purpose Equipment Transport (SMET)	The eight-wheel SMET will provide small dismounted units at battalion level and below with an unmanned cargo transport (up to 2,500 pounds). The SMET also features a Universal Battery Charger with the capability to recharge unit equipment batteries.	Unmanned/optionally manned system Range: 60 miles or > in 72 hrs Generates power for charging batteries and equipment

Terms	
Artificial Intelligence	The capability of computer systems to perform tasks that normally require human intelligence such as perception, conversation, and decision-making.
Autonomy	The level of independence that humans grant a system to execute a given task in a given environment. The condition or quality of being self-governing to achieve an assigned mission based on the system's own situational awareness (integrated sensing, perceiving, analyzing) planning and decision-making. This independence is a point on a spectrum that can be tailored to the specific mission, level of acceptable risk, and degree of human-machine teaming.
Cross-Domain Maneuver	The employment of mutually supporting lethal and nonlethal capabilities of multiple domains to create conditions designed to generate overmatch, present multiple dilemmas to the enemy, and enable joint force freedom of movement and action.
Small Unmanned Aircraft System (SUAS)	These small systems generally have a maximum gross takeoff weight of 0-20 pounds. System airspeeds are 100 knots or less and have a normal operating altitude of 1,200 feet above ground level (AGL) or below.
Multi-Domain Operations	Operations conducted across multiple domains and contested spaces to overcome an adversary's (or enemy's) strengths by presenting them with several operational and/or tactical dilemmas through the combined application of calibrated force posture; employment of multi-domain formations; and convergence of capabilities across domains, environments, and functions in time and spaces to achieve operational and tactical objectives.

Table 2 — Terms

Photo by Justin Sweet

A cadet demonstrates the Soldier Borne Sensor during training at the U.S. Military Academy in July 2021.

trainer course that is ready to support commanders in the field with trained and ready operators who can effectively operate maneuver robotic systems and leaders who can confidently employ them.

Maneuver Robotics Master Trainer Course Recommended Outcomes

1. Train and evaluate unit maneuver robotic operators resulting in a strong bench of qualified Soldiers.

2. Advise commanders on the capabilities and limitations of unit assigned air and ground robotic systems.

3. Assist commanders in developing and managing unit robotic training plans in accordance with applicable policies and regulations.

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U.S. Army Small Unmanned Aircraft System Strategy, Robotics Requirements Division, Maneuver Capabilities Development and Integration Directorate, 2020

John Dudas retired from the U.S. Army in 2018 as a command sergeant major. He currently serves as a training developer at the Maneuver Center of Excellence, Fort Benning, GA.

A Soldier launches a Raven RQ-11B during training at Bemowo Piskie Training Area, Poland, on 5 August 2021.
Photo by SFC Adrian Patoka
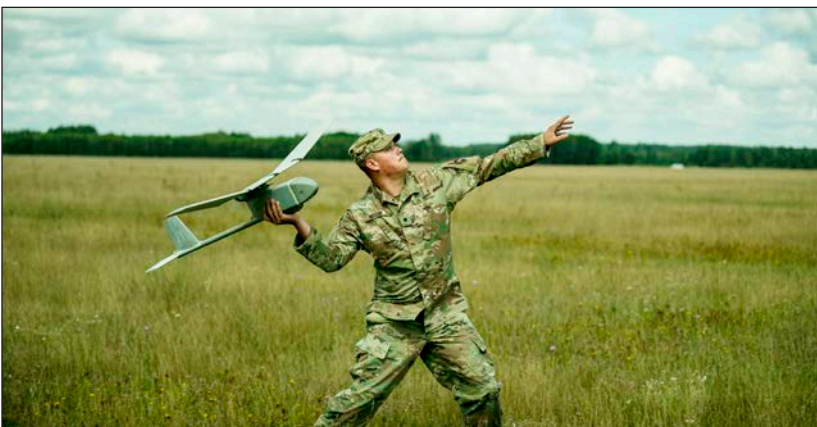
A Case for Delay

CPT DANIEL HOGESTYN

As the United States charts its strategic course in an era of reinvigorated strategic competition, forward-deployed Army units face tactical and operational problems which have gone undertrained for a generation. In Europe and the Indo-Pacific, forward-positioned Army forces are severely outnumbered by the forces of our great power rivals and their allies. While great power competition occurs along a spectrum, with interstate conflict as one extreme, fighting to preserve the territorial integrity of allies remains the ultimate purpose of forward-deployed elements. In order for the joint force as a whole to fight and win in these dire scenarios, forward-positioned forces must be trained, organized, and equipped to conduct delaying actions to buy time for units from the continental United States to deploy to the theater. The doctrinal task of delay has been woefully undertrained in an era when its effect is once again at a premium.

Major exercises such as Defender Europe and Defender Pacific, among others, have indicated an increased focus on the logistical challenges involved in deploying units into combat across the vast distances of the Atlantic and Pacific oceans. In addition to the practical lessons learned for Army planners, these exercises also have a signaling component that the United States takes its alliance commitments seriously. In order to credibly reassure nervous allies and deter potential aggressors, forward-deployed forces must be trained and prepared to buy the time required to bring forces from the continental United States into the fight.

Delay as a Task

Doctrine defines a delaying operation as "an operation in which a force under pressure trades space for time by slowing down the enemy's momentum and inflicting maximum damage on the enemy without, in principle, becoming decisively engaged."[1] The delaying force may execute a range of subordinate tasks ranging from area and mobile defenses to local attacks in order to force the enemy to slow their advance in order to mass combat power and maneuver on the retrograding force. In the delay, the delaying force displaces to subsequent positions before it can be decisively engaged by the enemy. This wears down the enemy until friendly forces meet their objective of establishing an effective defense or gaining the initiative and attacking. A delay can occur when the defending force does not have sufficient combat power to conduct other defensive tasks.[2]

Conducting an effective delay is not as simple as the sum of its parts. While subordinate units might be conducting more familiar tasks such as an area defense, synchronizing these operations to achieve the purpose of a delay, gaining time without incurring the destruction of the delaying force, is an intricate process that requires units and their staffs to

train specifically for that purpose. A delay requires more than simply bounding to subsequent battle positions; in fact, the close coordination required between units and their enablers leads doctrine to claim that "the delay is one of the most demanding of all ground combat operations."[3] While delay is a collective task assigned to units at echelons from platoon to corps, it is largely absent from large-scale training exercises.

History would caution against the Army neglecting the delay. Twice in the 20th century, the U.S. Army faced desperate delaying actions as its introduction into a major conflict: the North Korean offensive in the summer of 1950 and the Japanese invasion of the Philippine islands in December 1941.

Korea, 1950

On 25 June 1950, forces of the Democratic People's Republic of Korea (DPRK) launched an invasion across the 38th parallel. Republic of Korea (ROK) forces were quickly routed, and North Korean troops seized the capital, Seoul, in three days.[4] Communist forces continued their drive south down the Korean peninsula, facing minimal resistance. The first U.S. Army force to arrive in Korea was Task Force Smith, an understrength battalion of the 24th Infantry Division which arrived in country piecemeal. These elements were the only available at the time, as they had been forward in Japan on occupation duty. After suffering a defeat in its first action at Osan, the extremely outnumbered 24th Infantry Division

Figure 1 — One of the Delaying Actions in the Opening Weeks of the Korean War
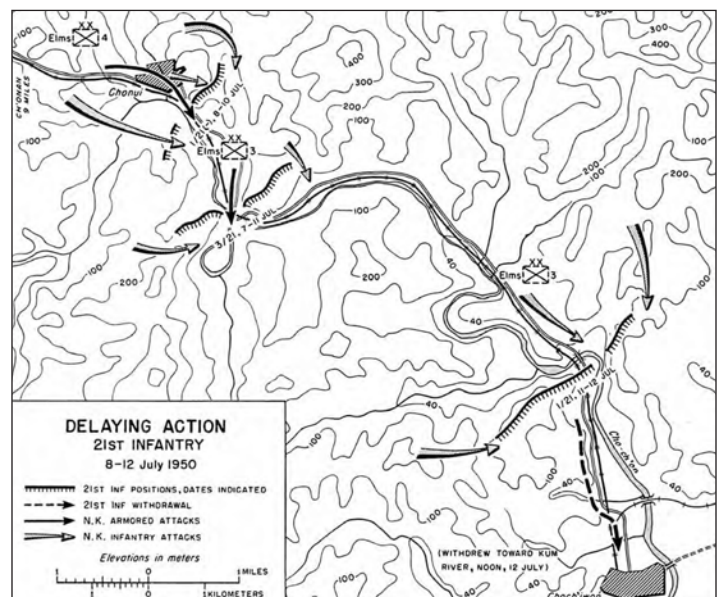
Graphic from *South to the Naktong, North to the Yalu* by Roy E. Appleman

under MG William F. Dean began a delaying operation in order to buy time for follow-on forces to arrive.[5] The arrival of the 1st Cavalry, 25th, and 7th Infantry Divisions (all forward deployed to Japan) fortified what became known as the Pusan perimeter, a foothold at the southern end of the peninsula where United Nations (UN) forces could mass additional combat power for a counterattack.[6] Without this successful delaying action by the 24th Infantry Division, the speed of the North Korean advance would ensure the fall of the ROK before UN forces could deploy on the peninsula.

The Philippines, 1941

After crippling the Pacific Fleet at Pearl Harbor on 7 December 1941, Japanese forces simultaneously launched attacks on British, Dutch, and American territories across East Asia. In the days that followed, Japanese forces landed at multiple points on the main island of Luzon.[7] The defense of the Philippines was left to U.S. Army Forces in the Far East (USAFFE) under GEN Douglas MacArthur. The prewar plan for a war against Japan, War Plan Orange-3, included tactical guidance for a delaying action on Luzon should Japanese forces achieve a successful beachhead.[8] MacArthur initially favored a more offensive plan to decisively defeat Japanese forces. Following initial setbacks, he reluctantly enacted War Plan Orange-3 and began a phased withdrawal across Luzon and eventually onto the Bataan peninsula.[9] Despite achieving a prolonged delay, U.S. forces on the Philippines were forced to surrender on 6 May 1942.[10] It took Japan six months of protracted fighting to capture the Philippines. The resources and manpower necessary to fight this extended campaign came at a detriment to their operations across the Pacific, ultimately upsetting timetables for future conquests.[11] While unsuccessful in retaining control of the Philippines, the effective delaying action fought by American and Filipino forces had a positive strategic impact across the theater.

Training to Delay

Units at the Army's Combat Training Centers (CTCs) do not typically conduct a delay at the brigade or battalion levels. This has not always been the case. In the 1980s, units frequently exercised scenarios based on delaying an advancing enemy force. In 1984, a series of articles in *Infantry* analyzed lessons learned from the nascent National Training Center (NTC) at Fort Irwin, CA. In recurring segments, the author analyzed four broad types of operations conducted at NTC: movement to contact, deliberate attack, area defense, and finally, the delay.[12] Choosing to elevate a retrograde task such as a delay equal to operations such as a deliberate attack or area defense may seem strange to many of today's leaders, but in the late Cold War this represented the reality faced by forward-deployed forces arrayed along the inner German border. To anyone serving in Europe at this time, the prospect of delaying Soviet tank armies surging through the Fulda Gap or across the North German Plain was the
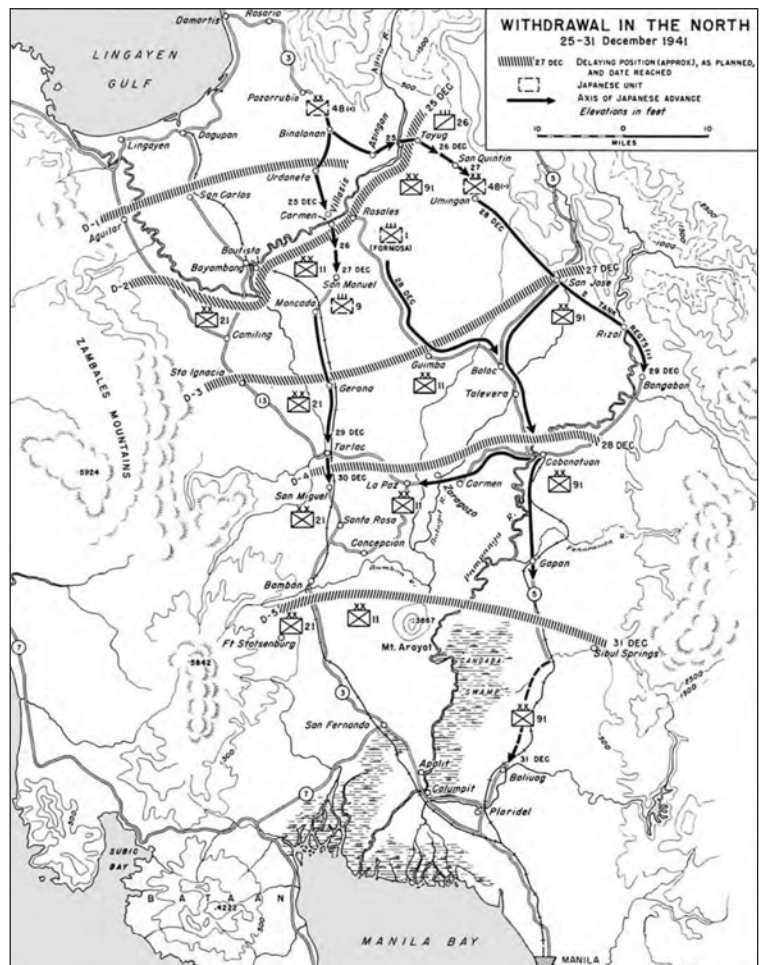
Graphic from *The Fall of the Philippines* by Louis Morton

Figure 2 — Map of USAFFE Delaying Positions in Support of War Plan Orange

organizing principle for most of their planning and unit training. Unless these forces could buy space for time, the Soviets would destroy NATO forces before reinforcements could arrive from the U.S. as practiced in the annual Return of Forces to Germany (REFORGER) exercise.

Today's strategic environment maintains an analogous requirement for forward-deployed units to delay attacking forces if they are to avoid total capitulation. In 2016, the RAND Corporation conducted an oft-cited series of wargames analyzing NATO's options for the defense of the Baltic states against Russia. In every iteration of the game, NATO players sought to delay the enemy advance by slowly giving up all but a minimal lodgment in the allied territory.[13] Even when given additional armored brigade combat teams (ABCTs), they were consistently used in a delaying action to buy time for reinforcements to arrive.[14] When NATO failed to delay Russian forces, they were forced to accept a fait accompli, leaving allied planners with the unenviable task of retaking an ally's lost territory. The wargaming team found this to be incredibly difficult militarily and fraught with opportunities for escalation.[15]

America's forward-deployed forces cannot merely be a tripwire. In Europe, Korea, and elsewhere, the units already
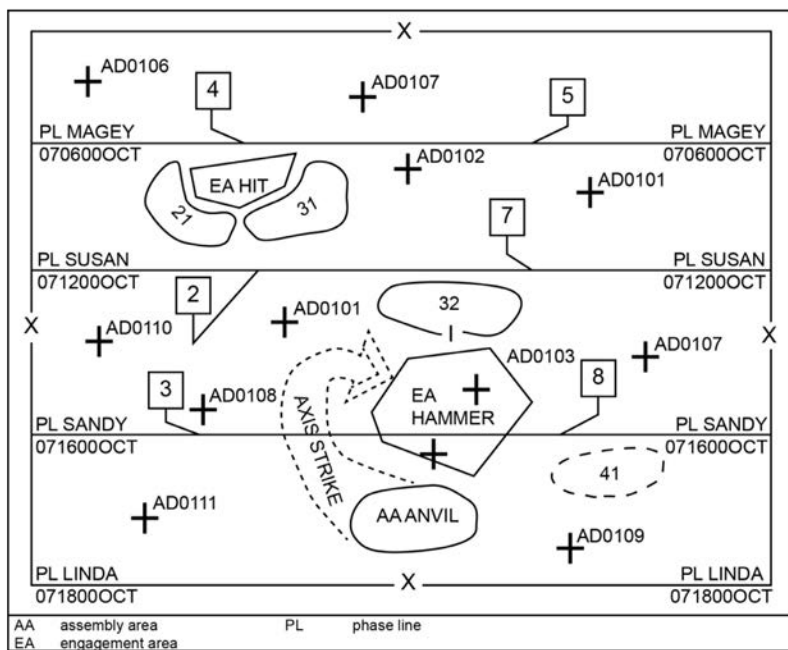
Graphic from Field Manual 3-90-1, *Offense and Defense Volume 1*

Figure 3 — Example Graphic Control Measures for a Brigade Conducting a Delay

in theater and those that arrive prior to hostilities must be trained to delay, or else force the Army to face the even more daunting task of penetrating prepared enemy defenses to liberate lost territory. The Army must prepare units for the task that most defenders face in the opening salvos of a conflict: delay. Doing so will signal reassurance to allies and deter adversaries who may doubt how seriously these forward-deployed forces are to fight to trade space for time. The Army may be fortunate enough to not put this training into action; history, however, suggests to err on the side of caution.

Recommendation

Deliberately training units and staff to conduct delaying actions will increase the survivability of forward-deployed Army elements in large-scale combat operations. The historical record shows that the actions of outnumbered units in the early days of a conflict can have outsized strate-

gic impact if they can successfully desynchronize the aggressor's timetable. Training to buy space for time will also signal to both partners and rivals that the United States takes the prospect of fighting for allied territory seriously and has trained and prepared for the realities forward deployed forces would face. The Army must incorporate executing the delay as a major training outcome at its CTCs, particularly for units rotating to support forces in Eastern Europe and in Korea. Additionally, staffs at echelon must be familiar with the difficult requirements of a successful delaying action and train to meet them in planning and command post exercises regularly.

Notes

[1] Field Manual 3-90-1, *Offense and Defense Volume 1*, March 2013, 9-1.

[2] Ibid, 9-3.

[3] Ibid, 9-2.

[4] U.S. Army Center of Military History, *Korea 1950* (Washington, D.C.: U.S. Army Center of Military History, 1997), 13.

[5] Ibid, 15.

[6] Ibid.

[7] Louis Morton, *The Fall of the Philippines* (Washington, D.C.: U.S. Army Center of Military History, 1993), 77.

[8] Ibid, 63.

[9] Ibid, 161.

[10] Ibid, 572.

[11] Ibid, 583.

[12] Vernon W. Humphrey, "Winning at the NTC: The Delay," *Infantry* (November-December 1984): 32-34.

[13] David A. Shlapak and Michael Johnson, *Reinforcing Deterrence on NATO's Eastern Flank: Wargaming the Defense of the Baltics* (Santa Monica, CA: RAND Corporation, 2016), 8.

[14] Ibid, 9.

[15] Ibid, 7.

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The Transition from Line Company to HHC:
A Guide for Second-Time Commanders

CPT JEFFREY W. NIELSEN

"A headquarters and headquarters company (HHC) is a completely different beast" is an adage that should ring in your head with the same tone as "I'm not signed for it" and "the OPFOR cheated" — great for banter, bad for business. Many a captain has heard the saying "a command is a command is a command," and that is exceptionally true of all companies, troops, and batteries (C/T/Bs) within a brigade combat team (BCT). Whether in an armored, Stryker, or infantry BCT, all C/T/Bs share collective training tasks covering deployment activities, local security, convoy operations, and conducting the troop leading procedures (TLPs).[1] Based on my experience commanding C Company, 4th Battalion, 23rd Infantry Regiment, and Headquarters and Headquarters Troop (HHT), 8th Squadron, 1st Cavalry Regiment (both in 2-2 Stryker Brigade Combat Team at Joint Base Lewis-McChord, WA), I have collected the following tactics, techniques, and procedures (TTPs) to successfully transition from "line" command to "HHC" command.

Bottom line up front:
1) Establish the chain of command;
2) Provide purpose;
3) Enforce systems; and
4) Train to win at the point of contact.

Step 1: Establish the Chain of Command

Another example to add to our list of tired sayings: "Everyone in HHC has multiple moms and dads." You will not find a single organization in the Army that answers to a lone call sign, and we have an established TTP that enables us to exercise mission command in the presence of competing priorities: the chain of command. Your first priority in establishing your position within the chain of command is receiving clear guidance from your higher commander and coordinating directly with your field-grade counterparts to establish priorities and lines of effort.

Get refined guidance from your higher commander early and often. As the HHC/T/B commander, your priorities will likely include Soldier welfare, vehicle maintenance, driver's training, weapon qualification, and all other tasks that generate combat readiness while your battalion executive officer (XO) and S3 are primarily concerned with the operations process and command and control of subordinate elements. This is often a source of friction as staff sections and specialty platoons feel overtasked, but you can easily

1SG Troy Mueller leads Headquarters and Headquarters Troop, 8th Squadron, 1st Cavalry Regiment, in conducting command maintenance in June 2021 at Joint Base Lewis-McChord, WA.

synchronize efforts by examining priorities up the chain of command. You, the XO, the S3, and the operations sergeant major all work for the same commander — as well as the same brigade commander. Their priorities will quickly clear up yours, and it is likely that the true priorities will fall on the HH-side of daily task organization. While many battalion and squadron commanders will provide explicit priorities for specialty platoons, it is important to clarify how staff sections nest with overall training priorities and discuss these lines of effort directly with your S3 and XO. Together you can adjust your HHC/T/B's battle rhythm to protect company maintenance and training time while still enabling your battalion or squadron. Once you have received guidance and synchronized with the S3 and XO, a successful tactic is to leverage your staff NCOs to accomplish HH tasks while

Figure 1 — Synchronizing Command Lines of Effort

Figure 2 — Sample Task Organization for an HHT Quarterly Training OPORD

their officer counterparts focus on operations process tasks. Remember what NCOs promise to their officer counterparts in their creed: "Officers of my unit will have maximum time to perform their duties."[2]

Figure 1 provides an example of priorities within a BCT chain of command and how HH training nests with other priorities. Illustratively, you've never heard of an email stand-down or tracker DONSA (day of no scheduled activities), but you absolutely understand the pain of lost sensitive items, low operational readiness rates, and weekend serious incidents. All other HH functions, including staff functions supporting the larger force, will grind to a halt if routine business isn't accomplished well.

Another successful tactic in establishing the chain of command is specifying it in writing using common operational language. While your modified table of organization and equipment (MTOE) or table of distribution and allowance (TDA) likely separates the unit into dozens of teams and sections, a best practice is to consolidate them under 7-8 direct-reporting elements to facilitate your span of control. If the S6 includes a retransmission section, an information operations section, and a networks operations (NETOPs) team, then it is NOT "a shop" — it is a platoon. And its leaders are a platoon leader and platoon sergeant. The impact of this operational language will help your subordinates synchronize leadership duties with their other tasks for their field-grade raters. This concept embraces

the tenets of mission command by enabling your elements to seize the initiative and act within intent in the absence of direct orders because they rightfully see themselves as leaders and not as "staffers."

Step 2: Provide Purpose

All Army leaders are trained to think "two levels up."[3] The purpose of line C/T/Bs, and understanding their role in the BCT fight, is very straightforward, but as the HHC/T/B your specialty platoons work for battalion/squadron and therefore need to understand BCT operations. Similarly, staff members effectively are the battalion during the military decision-making process (MDMP) and the operations process so you are responsible for training them to think how their operations will impact the division fight. Explaining the BCT fight to Soldiers and junior leaders accustomed to team and crew operations may seem daunting, but it's a much easier concept to explain when you sketch out the fight and who else is there. It is critical that you discuss the combined arms structure of the BCT for your sections and platoons to thrive. Figure 3 is an example of the forces available to a BCT within an infantry division that you can use to start this conversation.

For a single audience composed of all Soldiers within an HHC/T/B (rank and Military Occupational Specialty [MOS] immaterial), I recommend the following explanation of Figure 3: "The Army is designed in brigade combat teams. BCTs are the ones that seize and hold terrain with support from division. Divisions will usually have two or three BCTs

Figure 3 — Example Task Organization for Explaining "Two-Levels Up"

along with helicopters, rocket artillery, and access to Air Force and Navy assets. The core of the BCT is its three maneuver battalions which physically seize and hold terrain. Each of those battalions has an HHC/T/B and forward support company (FSC) so it can operate independently for around 72 hours. The cavalry is very similar to the maneuver battalions, except its primary tasks are to go first to conduct reconnaissance and then "reverse passage of lines" (RPOL) back to conduct wide-area and flank security. The engineer battalion has sappers and digging assets (to conduct mobility, counter-mobility, and survivability operations) along with the military intelligence company (MICO) drones and signal company (SIGCO) retransmission sections. The fires battalion has howitzers to fire at targets out to 20 kilometers based on intelligence from the cavalry, unmanned aerial vehicles (UAVs), or the maneuver battalions. The fires battalion also gives us counter-fire radar teams. The brigade support battalion drives to and from the division support area to keep us fed, fueled, fixed, supplied, and medicated. Finally, all of it is managed by HHC brigade which has a lot of specialty staff sections to do better MDMP. It is our job to support the line C/T/Bs while integrating all of the assets available to us."

Figures 4 is an example concept sketch that depicts how a cavalry squadron and BCT operate across the rear, close, and deep fights. A similar sketch of the BCT fight will enable your Soldiers to visualize how their role and warfighting function impact the entire unit's success, and it will also give them confidence that their leaders understand combat operations and have a clear glide path to train them for war.

For our same audience of rank and MOS immaterial HHC/T/B Soldiers, I recommend the following explanation of Figure 4: "The BCT is usually organized into three areas called the close fight, deep fight, and support zone. The close fight is what you think of as war where infantry and armor shoot at each other. That's where the three maneuver battalions operate along with their organic scouts, medics, and mortars supporting them. In front of the close fight is the deep fight. The deep fight is where the BCT can shape the battle by using the cavalry, scouts, UAVs, aircraft, Special Forces, electronic warfare, and signal intelligence to destroy or disrupt the enemy's most important personnel and equipment before they even have a chance to fight. The support zone is where everything else sets up to provide us intelligence, fires, protection, sustainment, and command and control."

Once you have framed the BCT fight for your Soldiers, it is far easier to counsel them on their purpose and importance. Based off your assigned platoons and sections, walk them through the rest of your concept sketch to highlight their specific duties and responsibilities. A good tactic for this is to brief by nodes rather than MTOE, and I recommend the following priority to support your BCT's combat effectiveness:
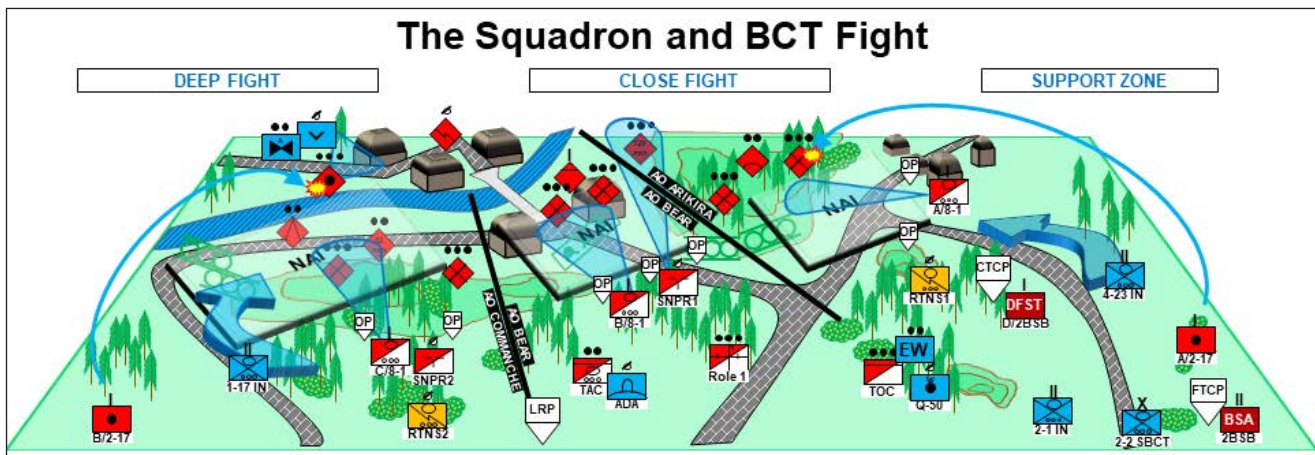
1. The tactical command post (TAC) manages current operations (CUOPs) while close to the fight.

2. The tactical operations center (TOC) manages CUOPs and planning future operations (FUOPs) further from the fight.

3. Retransmission (RTN) sites expand the BCT's communications, especially between the cavalry and artillery batteries.

4. Mortar firing points (MFPs) provide the battalion with organic fires.

5. Observation posts (OPs) conduct reconnaissance and security for the battalion.

6. The combat trains command post (CTCP) sustains the battalion and receive supplies from the brigade support area (BSA).

7. The forward trains command post (FTCP) prioritizes the battalion's supplies at the BSA.

8. The Role 1 provides medical aid and minor surgery to sustain the battalion's fighting force.

By using the above sequence of briefing aids and TTPs, you can fully provide your HH Soldiers with the purpose behind their training and operations. This in turn will provide excellent benefits to your command climate, training, and combat readiness.

Step 3: Enforce Systems

A good unit operates on systems so that its combat readiness is robust against personnel changes. The critical

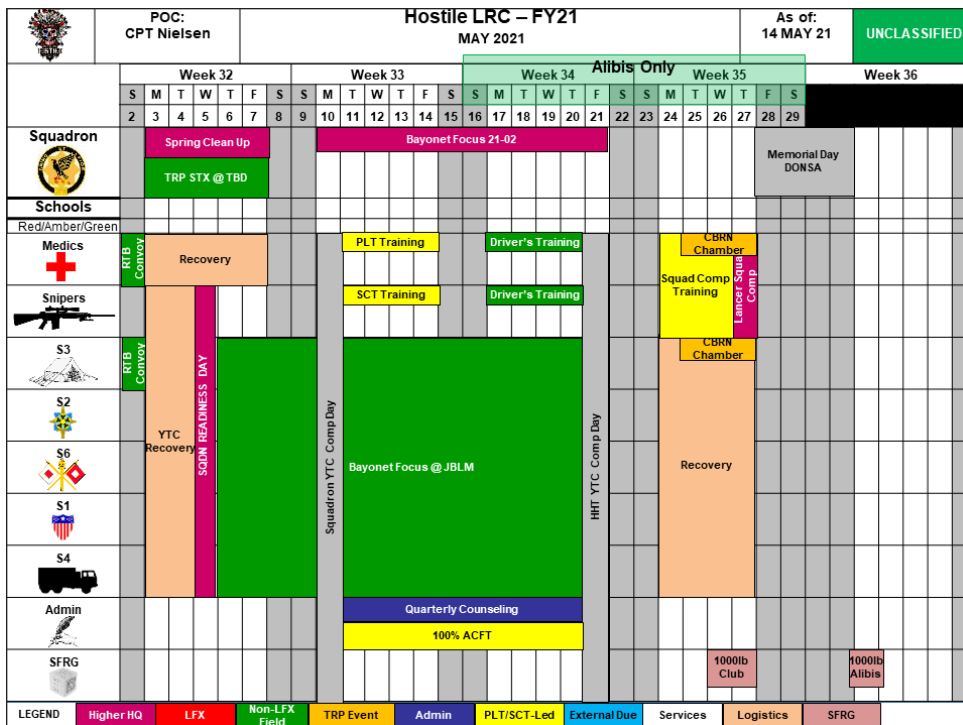**Figure 4 — Example BCT Concept Sketch with Squadron Focus**

Figure 5 — Example HHT Long-Range Calendar

(Calendar header: POC: CPT Nielsen — Hostile LRC – FY21 — MAY 2021 — As of: 14 MAY 21 — UNCLASSIFIED)

Rows: Squadron, Schools, Red/Amber/Green, Medics, Snipers, S3, S2, S6, S1, S4, Admin, SFRG

Selected events: Spring Clean Up, TRP STX @ TBD, Bayonet Focus 21-02, Memorial Day DONSA, RTB Convoy, Recovery, YTC Recovery, SQDN READINESS DAY, PLT Training, SCT Training, Driver's Training, CBRN Chamber, Squad Comp Training, Lancer Squad Comp, Squadron YTC Comp Day, Bayonet Focus @ JBLM, HHT YTC Comp Day, Recovery, Quarterly Counseling, 100% ACFT, 1000lb Club, 1000lb Alibis

LEGEND: Higher HQ | LFX | Non-LFX Field | TRP Event | Admin | PLT/SCT-Led | External Due | Services | Logistics | SFRG

systems within a line C/T/B tend to include the following: training management, command supply discipline, command maintenance discipline, and Soldier readiness. These systems are managed on a battle rhythm that spans from Motorpool Monday, through the readiness working group, and on to the training meeting with variable inputs from battalion meetings. HH formations are no different from line units in the importance of these systems. The key differences are that HH units have more specialized equipment, a greater variety of MOSs, and additional support requirements to your higher headquarters. Successfully managing these differences simply requires refined guidance in your battle rhythm events and key products, starting with the training meeting. As stated in Field Manual (FM) 7-0, *Training*, "Company, troop, and battery training meetings are the center of gravity of unit training management."[4] In addition to the topics listed in FM 7-0, in my experience the following products are critical components of a successful training meeting:

1. Unit mission-essential task list (METL),
2. Higher headquarters' guidance and calendars,
3. Internal long-range calendar (LRC),
4. Internal short-range calendar (SRC), and
5. Concept of operations sketches.

For transitioning second-time commanders, all of these inputs are familiar and their benefits obvious. Follow the same process while taking the time to coordinate each subordinate platoon's and section's unique training requirements. In your LRC, specify a row for each subordinate element and populate it with events like One System Remote Video Terminal (OSRVT) training for the S2 section, a mass casualty (MASCAL) exercise for the medic platoon, special variant driver's training, and the myriad other tasks that cannot

be adequately trained unless properly resourced in advance. It is very likely that your HHC/T/B will be tasked with higher echelon training and support far more than your line counterparts. Maintaining an internal LRC will allow you to assume risk and shift events as necessary.

The counterpart to the LRC is the SRC. Your LRC and SRC can be similarly formatted, but the SRC planning horizon will be much shorter with greater detail on each event. While the LRC allows you to plan training, the SRC enables you to enforce an HHC/T/B's other systems like supply, maintenance, and deployment discipline.

Step 4: Train to Win at the Point of Contact

One final trap laid for transitioning HHC/T/B commanders is the false belief that their unit will fight from the rear and that Soldier skills only apply to maneuver MOSs. This is not true, and with the proliferation of loitering munitions and hybrid threats, it will be even less true in each future conflict.[5] The BCT HH of today and tomorrow will fight while in continuous contact, be it aerial and indirect while established at support nodes or via direct contact while moving along ground lines of communication. All of the lessons from your line command still apply, and you owe it to your Soldiers to show them best practices to fight for their lives. Your battalion or squadron commander owes you refined guidance on how he or she envisions your unit training for the next fight, and I recommend three key training events to include in your training plan.

The first major threat against your formation is the inherent risk of convoy operations. By MTOE, HHC/B/Ts will have a high density of vehicles within their formation, and, by proximity to the BCT's support zone, will receive a large number of enablers under tactical control (TACON) during combat operations. Jumping each of an HHC/B/T's nodes presents immense risk to both force and mission for all units that do not have trained drivers, vehicle commanders, and subordinate chalk leaders. A key component of HHC/B/T training for deployment to combat or a Combat Training Center (CTC) is the completion of convoy live fires. This exercise can be conducted under blank-fire conditions and will pay immense dividends on the company's ability to prepare vehicles, uncoil from a tactical assembly area, maintain communications during movement, and maintain local security on the move. I recommend conducting two separate driver's training events, each two weeks long, in the train-up to convoy live fires to provide your drivers with the flexibility to complete competing priorities. At a minimum,

consider adding a "long-range road test" to your command maintenance days, with chalks reporting progress via tactical communication systems en route.

The second major threat against your formation is indirect fire of either chemical or high-explosive munitions. The best way to survive these attacks is by never being shot at in the first place. The Army is increasing its emphasis on leader's training time (LTT) conducted on a battle rhythm with low-cost resources, and concealment training is an excellent LTT event. Once per month, I recommend that your vehicle crews spend one to three hours unpacking their camouflage systems, establishing them over their vehicles and other node equipment, and then rapidly jumping that equipment across a short distance within your BCT area of operations. This easy training, when protected and treated seriously, is the greatest way to increase your company's combat survivability.

The third major threat against your formation is direct-fire contact. It is an immense failure to your higher headquarters to rely on them to provide precious squads or platoons to secure your formation. No rifle commander would ever dream of deploying to combat and leaving two squads back home, so as an HHC/T/B commander why would you force the same loss of combat power on your commander by asking them to secure your unit for you? The solution is clear and

Soldiers of HHT, 8-1 CAV conduct a team live-fire exercise in June 2021.

will have cascading benefits across your formation: conduct team live fires. Planning and executing a security-focused team live-fire event will prepare your Soldiers to fight and win at the point of contact in defense of their own nodes. Your Soldiers will adopt a combat mentality and culture of excellence that reflects in their MOS-specific operations. Planning live fires will drive the nodes to solidify their security teams and battle rhythm prior to deployment while building cross-warfighting function relationships for your battalion or squadron. In my experience completing two separate team live-fire events while in HHC/T/B command, two training days and the smallest maneuver range on your installation will be enough to train and certify your node security teams on preparing their combat equipment, using common tactical language, and fighting to win at the point of contact. Don't take my word for it — just start the conversation with your first sergeant and sergeant major, and I guarantee that you can build consensus on the importance of combat training for every Soldier in your formation.

Conclusion

HHC/T/B commands within a BCT have a reputation of being more complicated and fundamentally different to command than their line counterparts. It is much truer that these companies rely on identical systems and collective training tasks as other C/T/Bs and simply require more refined leadership to synchronize priorities and specialized subordinate units. By following these TTPs of establishing the chain of command, providing purpose, enforcing systems, and training to win at the point of contact, new HHC/T/B commanders can successfully transition and build units that are ready, lethal, and operate as force multipliers for your entire BCT. I can appreciate that this article recommends a lot of combat training that transitioning commanders might not traditionally associate with HHC/T/Bs, but you should give them a try. It sure beats sitting in the CTCP.

Notes

[1] Army Training Network, https://atn.army.mil/ATNPortalUI/METL/.

[2] The NCO Creed, www.army.mil/values/nco.html.

[3] Training and Evaluation Outline 071-300-0001, paragraph 7e (2).

[4] Field Manual 7-0, *Training*, June 2021, paragraph E-4.

[5] Lessons from the Nagorno-Karabakh 2020 Conflict, Center for Army Lessons Learned.

A New Training Path:
Maximizing LFXs Rather than Culminating with Them

MAJ GERARD T. SPINNEY

"We do it that way because that is what we have always done." Everyone has heard that statement, or excuse, repeatedly in their career. That way of thinking can be dangerous to the Infantry Soldier. After decades of watching and learning how the U.S. military fights, our adversaries adapt and innovate. The Commandant of the U.S. Army Infantry School articulated it best in a recent article: Infantry leaders must adapt their training so that their Soldiers become familiarized with the environment they will face in high-intensity large-scale combat operations.[1]

Infantry training at all levels should be adaptive and innovative. How infantry units have trained in the past is not wrong or unsafe, but a different sequence of training events would develop a more combat-ready fighting force. To better prepare for future combat, infantry units should think about rearranging the training path. Infantry units should build the foundational skills during a live-fire exercise and then apply the live-fire skills during realistic lane training.

Background

While the standard infantry unit training path has been sufficient for combat in Iraq and Afghanistan, it may not be adequate for future combat against a near-peer competitor. Close combat against insurgents will be very different from close combat against a professionally trained and equipped army. Within a typical infantry unit training path, the unit individually qualifies Soldiers on their organic weapon systems, conducts lane training during situational training exercises (STXs), and progresses to live-fire exercises (LFXs) as the culminating certification exercise. The term "infantry unit" can be applied to fire team, squad, or platoon.

The typical lane training that follows the initial weapon systems qualification consists of the infantry unit conducting battle drills against a live opposing force (OPFOR) with blank ammunition expended by both sides. This force-on-force training is essential to developing combat-ready infantry units. Training Circular (TC) 7-9, *Infantry Live-Fire Training*, directs that force-on-force training and live-fire training must be coupled and that while force-on-force trains realistic actions, live fire trains marksmanship.[2] Field Manual (FM) 7-0, *Training*, directs situational training exercises as prerequisites to live-fire exercises. TC 3-20.0, *Integrated Weapons Training Strategy*, describes six sequential live-fire training progression tables.[3] It states that Table III of the integrated weapons training strategy consists of STX, while LFXs do not start until Tables V and VI.[4]

Both FM 7-0 and TC 3-20.0 direct infantry units to conduct lane training during STX before performing live-fire exercises. However, TC 3-20.0 also stipulates that while the tables are typically executed in sequence, "commanders have the flexibility to execute tables in a varying sequence based on their training need, accessibility to resources, and other synchronization requirements."[5] Subsequently, the sequence of the training path is at the commander's discretion.

The training path following FM 7-0 has worked well in

Photos by SPC Pierre Osias

Soldiers in 2nd Battalion, 22nd Infantry Regiment, 1st Brigade Combat Team, 10th Mountain Division, conduct a squad live-fire exercise in August 2021 at Fort Drum, NY.

Soldiers in 2nd Battalion, 22nd Infantry Regiment, 1st Brigade Combat Team, 10th Mountain Division, conduct a squad live-fire exercise in August 2021 at Fort Drum, NY.

preparing small units for combat. The infantry units performed well in combat during Operation Desert Storm in the early 1990s and again during Operations Iraqi Freedom and Enduring Freedom throughout the past 21 years. However, as our adversaries evolve and learn our tactics, our training must evolve and adapt. The sequence of infantry training events, if tailored correctly, could enhance the capability of the small unit, particularly the infantry units.

The historical notion that the culminating training event for an infantry unit is its LFX requires re-evaluation. Conversely, the best way to train infantry units for combat should not simply culminate in the unit's ability to conduct movement and maneuver under live-fire conditions. Successfully executing movement and maneuver under live-fire conditions is suitable for combat. However, live-fire training can be better maximized at the beginning of the training path rather than at the end. The proposed methodology recommends using the LFX as the foundation for the infantry unit and then applying the foundational skills and confidence during lane training. To apply an academic metaphor to the proposed infantry unit training path, the live fire earns the unit an undergraduate degree, and the lane training earns the unit a graduate degree. Then, the units which engage in combat earn their Ph.D.

Live-Fire Exercise — Foundational Combat Skills

LFXs are more foundationally beneficial to building combat skills. For Infantry Soldiers, a live-fire exercise is typically a very scripted event. A crawl, walk, and run methodology enables the training event. The crawl phase consists of leaders conducting a walkthrough of the lane and the objective. The walk phase consists of a dry iteration of the live-fire lane followed by a blank iteration of the same lane. Sometimes there are multiple dry or blank iterations required. The lane does not change; the targets remain the same, and the terrain and firing points all stay the same from the crawl to the walk and then to the run phase. The run phase is the iteration utilizing live ammunition.

There are significant benefits to these scripted LFXs. These exercises are the primary tools for training marksmanship under field conditions, fire distribution and control, weapons confidence and familiarization, and synchronization of fires and effects.[6] Additional training includes movement and maneuver techniques, command and control skills, and enabler integration. The LFX is a pinnacle training event for the squad or platoon and should remain so. Ensuring Soldiers execute proper weapons handling techniques is essential during the dry and blank ammunition iterations to ensure safe procedures during the live portion. Ensuring Soldiers know where their teammates are moving and maneuvering is also a vital rehearsed element of the dry- and blank-fire iterations. However, the scripted aspects of the exercise should be the starting point of preparing the infantry unit for future combat, not the culminating training event.

LFXs train marksmanship for combat better than any static weapons range. As was established earlier and implied by TC 7-9, they are essentially advanced marksmanship and thus should sequentially follow marksmanship during the training path. Marksmanship during LFXs is one of the best training events for Infantry Soldiers to hone their skills. During these exercises, Infantry Soldiers engage targets with live ammunition while moving and maneuvering around the battlefield. Whether in a rural, wooded, or urban area, LFXs allow Infantry Soldiers to apply their marksmanship fundamentals while also learning their weapon system's limitations.

Infantry units can develop poor marksmanship habits during lane training if the applied marksmanship fundamentals are not adequately trained. Writing from experience as a former infantry rifle company commander, many Soldiers develop poor marksmanship habits when much of their weapons training takes place during STX. Firing from improper angles and impossible fighting positions can be commonplace. Firing weapons with blank ammunition in the woods without real consequences to consider degrades the quality of training. During lane training, these bad habits can form in Soldiers and units that have not learned their marksmanship fundamentals under live-fire conditions.

Suppose the scripted LFXs drill the applied marksmanship fundamentals into the Soldiers. In that case, the quality of marksmanship throughout the follow-on lane training will carry over and maximize the unit's training.

Conversely, infantry units can develop poor movement techniques during LFXs because no OPFOR is shooting back at them. Without an opposing force shooting back at them, requiring the use of cover while firing is hard to simulate. However, whether an LFX is conducted before or after the lane training, it has the potential to allow these poor techniques to foster. Leaders and lane observers must watch for these poor practices and reiterate the proper techniques during the dry or blank iterations. The scripted scenarios also contribute to poor movement techniques because the units know precisely where the targets will rise.

The scripted nature of LFXs is not entirely negative; these exercises help instill safe movements, accurate marksmanship, and confidence with live ammunition — all of which are essential for an infantry unit in combat. All Infantry Soldiers must be conscious of their surroundings, especially under live-fire conditions. They must also be aware of their maneuver lanes, firing points, and weapon system's capabilities. These skills are learned and reinforced during LFXs. The skills drilled during the scripted LFX can be amplified and maximized during the follow-on lane training.

Lane Training — Applied Lethality

Lane training, commonly referred to as STX, is where infantry units master their skills. The infantry unit conducts battle drills against live OPFOR while using blank ammunition. This force-on-force training is an important training event for the infantry unit. Lane training involves a live, thinking enemy that acts as the OPFOR. Infantry units can use various training aids to supplement the blank ammunition to enhance the event. Potential training aids available to units to enhance their lane training include Multiple Integrated Laser Engagement System (MILES), simulation rounds, and simulated pyrotechnics. These training aids involve additional risk mitigations and require additional paperwork or higher levels of approval. These administrative obstacles are in place for a reason and should never be used to excuse the lack of training aid utilization.

Infantry units can maximize their lane training after conducting the scripted LFXs by enforcing the lessons and skills learned during the exercise. The units will be better positioned to identify the best firing positions during movement: the firing positions where they are confident their weapon system can accurately engage the target. Leaders, particularly at the team and squad levels, understand the precautions their maneuver forces must take to prevent fratricide based on their scripted live-fire training. After the LFX, these skills can be applied to the lane training. Soldiers understand the necessity to look down the scope of their rifles to engage targets, and they may be less likely to fire their blank ammunition superficially and indiscriminately at the OPFOR.

Additionally, the infantry unit can now apply the LFX skills against a live-thinking enemy. Ensuring they engage with and destroy the enemy without committing fratricide against moving targets trying to do the same to them is what best prepares units for combat. Lane training is a vital step in combat-ready units' training path. The infantry unit that can conduct live-fire training exercises before the lane training can maximize realistic combat conditions during lane training.

Implications

Developing combat-ready infantry units will be essential to the future success of infantry battalions, brigades, and divisions in large-scale ground combat. Training infantry units in the foundational aspects of fire and maneuver should start with live-fire training, not culminate there. Building competence and confidence with live ammunition before applying movement and maneuver skills against a live enemy OPFOR is critical. Infantry leaders must continually find ways to improve their unit within the bounds of Army regulations and field manuals. Finding innovative ways to improve their unit's lethality is critical to the future force.

Resource limitations can hinder the implementation of lane training after LFXs or the appropriate utilization of training aids to enhance the lane training. These restraints and constraints are in place for a reason; however, there are exceptions to policy and risk-mitigation measures that can lift the restraints and limitations. Infantry leaders who want to exercise innovative methods to train their unit should go the extra mile to ensure they get the required exceptions and permissions.

Lastly, infantry leaders' responsibility is to train their units for combat. Whether they utilize the prescribed methodology described or not, Infantry Soldiers must be capable of closing with and destroying the enemy in combat. Using live-fire training as the foundation of training and then applying their live-fire training skills in a lane-training environment will maximize the training time to produce lethal, combat-ready Infantry Soldiers.

Notes

[1] BG Larry Burris, "Commandant's Note: Modernizing for Large-Scale Combat Operations," *Infantry* (Spring 2022): 1.

[2] Training Circular (TC) 7-9, *Infantry Live-Fire Training*, April 2014, 1-2.

[3] TC 3-20.0, *Integrated Weapons Training Strategy* (IWTS), June 2019, 1-5.

[4] Field Manual (FM) 7-0, *Training*, June 2021, I-4.

[5] TC 3-20.0, 1-5.

[6] FM 7-0, 4-2.

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Fighting and Winning with Fires:
The Patriot Brigade's Record-Setting JRTC Rotation

LTC JONATHAN T. HOLM

O n 24 April 2021, the Patriots of the 3rd Brigade Combat Team (BCT), 10th Mountain Division emerged from their demanding Joint Readiness Training Center (JRTC) rotation at Fort Polk, LA. The Soldiers of Geronimo, the opposing force (OPFOR), lived up to their reputation and proved to be the last enemy anyone would ever want to fight. Their attacks were constant and occurred in all domains and throughout the depth of the battlespace. They fought with agility, tempo, and decisiveness. Though Fort Polk is the Patriot Brigade's home turf, the seasonal rains and densely wooded training area made for highly restrictive terrain and a very difficult training environment.

Despite these challenges and a litany of its shortcomings, the brigade's fires warfighting function (WfF) set multiple records during this rotation:

• More battle damage assessment (BDA), the total number of enemy casualties and damaged or destroyed equipment from fires than the previous six rotations combined;

• The first brigade to outshoot Geronimo with fires;

• The first ever fully digital sensor-to-shooter fire mission at JRTC;

• The fastest counterfire time in eight years; and

• The longest firefight to defend the brigade's howitzers at a position area for artillery (PAA) in recent memory.

This article will describe some of the key decisions and actions that made this success possible, with the intent that other brigades would be able to replicate these successes in future JRTC rotations.

Training Progression

Before addressing each of the factors that were critical to success, though, examine the brief summary of the unit's training progression outlined in Figure 1. After a nearly 15-month long training hiatus due to a Southwest border deployment, COVID restrictions, and Hurricane Laura recovery efforts, Soldiers of the "Thunder Battalion" — the 5th Battalion, 25th Field Artillery Regiment (5-25 FA), as well as the other Patriots of 3/10 BCT, followed a condensed but fairly standard training progression.

Though this training progression was not particularly novel, the brigade made the most of its available training time in two important ways:

(1) By leveraging great support from 10th Mountain Division's Division Artillery (DIVARTY) and other division counterparts at multiple points in the train-up, and

(2) By having built-in, brigade-protected windows to

Timeline

June-December 2019: Southwest Border Mission

February-June 2020: COVID-19 restrictions

August-September 2020: Hurricane Laura recovery

September 2020: Artillery Table (AT) VI (Section Qualification)

October 2020: AT XII (Platoon Qualification)

November 2020: Leader Training Program (LTP); AT XV (battery qualification); company combined arms live-fire exercise (CALFEX)

December 2020: Company/battery-level re-training field training exercise (FTX)

January 2021: Mountain Peak (brigade FTX); AT XV

March 2021: Brigade command post exercise (CPX); company/battery-level re-training FTX

April 2021: JRTC rotation

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conduct after action review (AAR)-driven retraining after major collective training events.

One other item to note was that the brigade did not merge its Artillery Table XV with company combined arms live-fire exercises (CALFEXs). Treating each as a distinct event with its own training objectives and timeline enabled the battalion to ensure each training audience was able to train to standard.

It was a fast-paced and aggressive training progression. Throughout that progression, though, there were three factors that remained constant and were vital to the brigade's success, despite the many challenges we faced: ideology, deliberate decisions, and culture.

Ideology — Leading with High Explosives (HE)

Before any of us ever met, COL Matthew J. Hardman, commander of 3rd BCT, initiated a running dialogue with all of the battalion commanders about how we as a team would fight the brigade. We discussed all WfFs as COL Hardman wrote and disseminated a "how we fight" document and led leader professional development (LPD) sessions on the topic. By the end of the leader training program (LTP) in November 2020, leaders were all on the same page at every echelon: The brigade would "lead with HE." The 3rd BCT would do most of its damage to the enemy with HE and then clean out hard-to-reach places with lethal rifle companies and platoons. That was easier said than done, but everyone understood that was the goal. LTC Benjamin E. Jackman, commander of 2nd Battalion, 30th Infantry Regiment,

demonstrated his understanding and commitment when he pointed out that "we tend to think of using fires to support maneuver, but there will also be times when we will have to maneuver in order to get fires into position." LTC Jackman was speaking specifically in terms of the maneuver WfF, but the intent to lead with HE had implications for other WfFs as well.

Intelligence drives operations, so the brigade could not effectively lead with HE unless the intelligence WfF was ideologically aligned. During its rotation, the BCT would be without a targeting warrant officer, a field artillery intelligence officer (FAIO) working within the brigade intelligence support element (BISE) to transform intelligence into targets. After some LPDs during the brigade's training progression, key players within the brigade S2 shop bought into having a "mentality of lethality," not just an analytical mentality. They began to think of themselves as hunters. This was tempered, though, with some important guidance from COL Hardman. He told the staff, "We collect for two reasons: to answer PIRs (priority intelligence requirements) and to facilitate targeting. We never do only one or only the other, but we always have to be clear on which one is the priority. When I'm not there, the CHOPS (chief of operations) makes that decision." When targeting was the priority, the intelligence WfF was ready to hunt.

Another critical conversation that paid dividends during the JRTC rotation centered around targeting and the fires WfF. Many months before the rotation, COL Hardman sat me down to discuss targeting. I came in with the prevailing mindset that we should not expend ammo and expose ourselves to counterfire for low-payoff targets, that we had to avoid chasing minor enemy capabilities with fires, and that we had to have a disciplined adherence to our high-payoff target (HPT) list, attack guidance matrix, and target selection

standards. After hearing me out, COL Hardman said, "Jon, I agree with you, and 90 percent of the time, we will do exactly that… Sometimes the targeting team will tell me that two or three particular enemy capabilities are the most important things to destroy, and you'll be right. But then Murphy and the enemy will vote, and we just won't be able to find it. At some point — and I trust you to know when this point is — we need to stop looking for the unicorn and just kill a bunch of infantry."

This artful, intuition-driven balance between a disciplined approach to targeting and an opportunistic approach to "fight the enemy, not the plan" worked well. Several times 5-25 FA landed a haymaker by destroying a critical HPT, but when its intelligence efforts could not find the HPT, the battalion hit Geronimo with as many body blows as it could, neutralizing infantry platoons and reducing enemy combat power with every fire mission. To repurpose GEN Eisenhower's famous quote: "The target synch matrix is nothing; targeting is everything." In other words, the fight rarely unfolded exactly as we expected coming out of each targeting board. However, by running the targeting process every single day, the brigade was able to request and lock in assets which it could then re-task and re-purpose as needed in execution; the brigade was able to "fight the enemy, not the plan" while remaining nested in the shared understanding of the commander's targeting guidance.

To facilitate that approach, we embraced the idea that "if it's worth killing, it's worth overkilling." Commanders at all echelons, fire support teams (FISTs), and fire direction centers (FDCs) became comfortable planning for large volumes of HE, built from the JRTC adjudication tables. The

Soldiers from 3rd Brigade Combat Team, 10th Mountain Division react to fire from a simulated opposing force on 10 April 2021 as part of Joint Readiness Training Center Rotation 21-06 at Fort Polk, LA.
Photo courtesy of Joint Readiness Training Center Operations Group

field artillery (FA) battalion used the adjudication tables to develop all of its fire orders and made massing and high volume fire orders the norm, starting as early as section certification. Training Circular (TC) 3-09.8, *Fire Support and Field Artillery Certification and Qualification*, establishes a minimum requirement of 15 rounds per section to certify; 5-25 FA shot 50 per section. Early in the training progression, the battalion broke the habit of low volume, precision-centric fire missions that had become so pervasive after nearly 20 years of stability operations.

The "lead with HE" mentality does not work without close integration with the sustainment WfF. During LTP, COL Hardman made it clear that tracking HE Class V is commander's business. Organic indirect fire systems are the most effective way for commanders to shape the fight at their echelon (mortars for companies and battalions, and artillery for the brigade). Therefore, commanders at every echelon must know what they have available, report accurately, and anticipate future requirements. The FA battalion tactical operations center (TOC), for instance, tracked every 105mm and 155mm artillery round by location and planning horizon including: what each battery currently has on hand; what is at the combat trains command post (CTCP) and therefore available to shoot within eight hours; what is at the brigade support area (BSA) and therefore available to shoot within 24 hours; and what is at the division support area (DSA) and therefore available within 48 hours. Sustainment is a team sport. Tracking and synchronizing to this level of detail required close coordination between the batteries, battalion S4, forward support company commander at the field trains command post (FTCP), headquarters and headquarters battery commander at the CTCP, brigade S4 and support operations officer (SPO), and 710th Brigade Support Battalion (BSB). LTC Barry Murray, commander of 710th BSB, drove sustainment for the brigade and worked

wonders to keep the mortars and howitzers fed with Class V.

The greatest planning at the brigade and battalion level can fall apart if companies/batteries/ troops are not prepared to execute. Early in the brigade's training progression, the 3rd BCT's command sergeant major (CSM), Nema Mobarakzadeh, hosted a brigade-wide LPD for battery/company/troop command teams. He used Charlie Battery to demonstrate the resupply process from logistics status (LOGSTAT) through delivery of supplies, including how to prepare for and receive supplies at the logistics release point. This thorough LPD and live demonstration prepared units across the brigade to resupply themselves effectively and efficiently with ammunition and other supplies, conduct field maintenance, and fuel the fight. This LPD ensured leaders down to the company level knew what right looked like for tactical distribution operations, and accurate LOGSTAT reporting became a key training objective throughout the BCT's training progression.

Ingraining the ideology to "lead with HE" during the train-up provided understanding of the commander's intent that was applicable throughout the brigade. Having that shared understanding early on in the brigade's training progression enabled countless other decisions and actions across WfFs and echelons that converged with incredible effects during JRTC.

Deliberate Decisions — Manning, Training, Equipping, and Leading with What You Have

"Readiness is about what you have, not what you don't have."

— MG Milford H. Beagle
Commanding General, 10th Mountain Division (Light Infantry)

The U.S. Army lives in a resource-constrained environment. Therefore, leaders must make deliberate decisions about how they allocate what they do have without fixating on what they don't have. This applies to how leaders man, train, equip, and lead.

From a manning perspective, this necessitates effective talent management and aligning the right person to the right job. In the absence of warrants, I handpicked a hard-working, intelligent, ambitious, and resilient first lieutenant (1LT) as my targeting officer. Short on captains, I also handpicked two 1LTs, two staff sergeants, and two specialists who had the smarts and, perhaps more importantly, the resilience to work the fires cell on the brigade current operations (CUOPS) floor and take constructive criticism from the CHOPS, the brigade operations officer (S3), myself, and the brigade commander. They rose to the challenge and actually got better every day without buckling under the weight of all that pressure and rank. Also, every fire mission that comes to the FA battalion comes through the battalion FDC. So, I put my best pre-command captain and moved the section chief of our top FDC out of his firing battery and into the battalion FDC. Yes, the battery suffered from

Photo by SSG Ashley M. Morris
Logistics Soldiers move artillery rounds in preparation for the start of Joint Readiness Training Center Rotation 21-06 at Fort Polk, LA.

the loss of a fine section chief, but the battalion as a whole benefited.

From a training perspective, 5-25 FA benefited from many, many reps during its train-up. In addition to battalion- and brigade-driven training, DIVARTY ran the battalion through two Table XVs and a battalion fire support element certification, and division planned and resourced a Mountain Peak rotation (complete with observer-controllers [OCs] and an OPFOR) as well as a Virtual Mountain Peak command post exercise. Teams at every echelon had opportunities to train, AAR, and then retrain, often with the assistance of OCs. The 10th Mountain Division and DIVARTY were both invested in the battalion's success. The 5-25 FA could not have achieved that success without their resourcing, support, and subject matter expertise.

From an equipping perspective, once again, the battalion needed the support of the broader team to succeed. All of C Battery's ammo trucks were deadlined with faults beyond the capability of 5-25 FA mechanics to repair. LTC Murray, the BSB commander, agreed to prioritize these ammo trucks for passback maintenance and even leveraged a Tiger Team from the 10th Sustainment Brigade to assist. After considerable effort, 5-25 FA was able to get five ammo trucks into the fight for JRTC, greatly easing the sustainment burden on the battalion's distribution platoon and increasing its ability to employ the M777 155mm towed howitzers. DIVARTY also allocated significant funds from its budget to help rebuild the battalion's howitzer shop stock and fill shortages for its FIST equipment. Whether in a JRTC rotation or in combat, combat power = trained teams + fully mission-capable equipment + ammunition + command and control. With help from the BSB and DIVARTY, 5-25 FA was able to generate far more combat power than it could have on its own.

Despite my best effort to manage talent, equipment assistance from great teammates, and a multitude of training reps, 5-25 FA still had less combat power than we wanted. When this occurred, the best thing the battalion could do was to be honest with itself about the capability it truly possessed and then make deliberate decisions about where to apply limited resources. This was most starkly true with the FISTs. The battalion did not have sufficient manning to fill all FISTs authorized by modified table of organization and equipment (MTOE). Rather than allow talent and equipment to be randomly dispersed throughout the FISTs, we deliberately shut down several FISTs and aligned the best equipment with the best-trained, best-led FISTs and — of critical importance — ensured that these FISTs were aligned with the companies that each battalion commander most trusted. Being unable to give every company a world-class FIST, the 5-25 FA command team at least gave the companies that would execute their battalion's decisive operation the best FISTs they possibly could.

Where to position leaders on the battlefield was another critical decision. Early on, COL Hardman and I agreed that my personal primary place of duty needed to be the BCT TOC

> *Whether in a JRTC rotation or in combat, combat power = trained teams + fully mission-capable equipment + ammunition + command and control.*

during the rotation. As COL John M. Barefield, commander of 10th Mountain DIVARTY, pointed out, the fire support coordinator (FSCOORD) is the only person with the training, experience, intuition, and authority to drive the entire fires WfF and the best place to do that is the BCT TOC. In the BCT TOC, I sat behind the intelligence, surveillance, and reconnaissance (ISR) manager and fires desk and within arm's reach of the joint terminal attack controller (JTAC) and air defense airspace management/brigade aviation element (ADAM/BAE) cell. From that location, it was possible to drive real-time fires execution in a way that would be impossible from the FA battalion TOC.

However, being the FSCOORD did not absolve me of responsibility to command the FA battalion, and the easiest way to be in two places at once was for those two places to be the same. The 5-25 FA always kept its battalion TOC one terrain feature away from the BCT TOC. They did not share a footprint, but the FA battalion was always close enough that the FA battalion commander had reliable comms from the BCT TOC and could quickly move between the two locations when face-to-face engagement was needed.

While that became SOP early in the training progression, the most important leader placement decision I made each day of the rotation was where to place CSM Sean O'Brien, the 5-25 FA's senior enlisted leader. He was the ace up my sleeve. Wherever I sensed friction — be it ammo movement from the field trains to the combat trains, security at a firing battery due to recent casualties, or keeping the battalion staff moving on the next military decision-making process (MDMP) cycle — I deployed the CSM. No one in the battalion understood my intent better and had the freedom of action to go where I needed him. While I spent almost the entire rotation at a command post, I was able to use the CSM to be at the right point of friction at the right time to ensure my commander's intent was executed.

Culture — Re-establishing Standards, Discipline, and Accountability

Even with the great leaders in place at the time, the climate, culture, and identity of the Thunder Battalion and Patriot Brigade suffered from 15 consecutive months of friction spanning the non-standard Southwest Border mission, COVID lockdowns, and a disastrous hurricane. Restoring a culture of standards, discipline, and personal accountability has been the BCT's number one priority, even while preparing for JRTC.

Training, in and of itself, does not build readiness. Training to standard does. Standards have to matter; they have to mean something. In combat, it is not ok to be just "ok." Leaders at every level must set and achieve high standards, and this requires discipline. The discipline to train and fight to standard is the same as the discipline to do anything else to standard; it is a mindset and an identity. Soldiers who do not have the discipline to clean their weapons to standard cannot be trusted to fight to standard. A leader who lacks the discipline to enforce uniform standards with their Soldiers in garrison cannot be trusted to enforce noise and light discipline in combat. It can be easy to let these "minor infractions" slide in garrison. Being disciplined in garrison can sometimes be harder without the life-and-death impetus provided by the immediate danger of a lurking enemy. That is why it is so important. If standards and discipline are the norm, second nature, and habitual in garrison, then that mentality will transfer to combat.

Soldiers from the 3rd Brigade Combat Team, 10th Mountain Division react to fire from a simulated opposing force on 10 April 2021 as part of JRTC 21-06 at Fort Polk, LA.

With that in mind, enforcing standards and discipline has been an enduring top priority for the brigade for over a year. This is easier said than done, especially when it requires removing tactically competent leaders. Manning was a constant challenge, as described previously. In some cases, these manning challenges were exacerbated by having to separate or relieve personnel for cause. A number of Soldiers, including leaders from section to battery level, were separated or relieved with as little as a week before the JRTC rotation. The loss of these Soldiers and leaders right before the rotation created additional challenges, but it was more than offset by an increase in motivation as other leaders and Soldiers became aware that technical and tactical proficiency or a perceived need for full manning would not shield anyone from the consequences of violating the standard. Everyone saw that leaders and Soldiers in 5-25 FA would be held accountable if they did not adhere to the Army's standards that build trust and confidence within the unit.

Holding people accountable to standards is necessary but is insufficient to ensure the development of a learning organization, and in a near-peer fight, the side that learns fastest wins. When technology overmatch is negligible or non-existent, learning overmatch can be decisive. While many organizations strive to be learning organizations, success in learning ultimately relies upon the self-accountability of the student. Yes, the teacher's job is to teach, but the student will never learn unless he or she takes personal ownership of the process by asking questions, conducting independent study, and, most importantly, being open to instruction in the first place. The acronym we developed in 5-25 FA was to "be CHAD: coachable, humble, and disciplined." During any training progression, leaders at all levels will interact with coaches, whether within their organization or external evaluators from other units. Learning leaders have to be coachable to learn from these coaches. Also, leaders have to make decisions with imperfect information. Sometimes these decisions do not work out, and learning leaders have to be humble enough to learn from those mistakes. None of that matters without discipline. The hardest part of any training event is not the actual training, it is having the discipline to implement the "sustains" and "improves" from the AAR, to execute the plan of action, and to follow-through on the retraining. An organization has not truly learned until its behavior has changed, and that behavior change occurs during retraining.

After Mountain Peak in January, which was certainly a learning experience, no one would have anticipated that 5-25 FA would have had the fastest counterfire mission response time in eight years during its JRTC rotation just a few months later. The battalion's counterfire response times were dreadfully slow during Mountain Peak, but the whole team, commander included, learned from the excellent coaches, were humble enough to learn from failures, and were

disciplined enough to implement changes. The entire battalion became CHAD. Everyone in 5-25 FA embraced the input from their OCs and made up for lost time during Mountain Peak and Virtual Mountain Peak. During Virtual Mountain Peak, the battalion worked dozens and dozens of counter-fire drills every day from sensor to shooter. Each day, Soldiers throughout the battalion figured out ways to improve and were coached on how to shave seconds off of response time here or there. Each day, intelligence preparation of the battlefield improved; the team was able to antici-pate enemy PAAs, emplace call-for-fire zones over those PAAs, develop airspace coordination measures between the counterfire battery and enemy PAAs, and lay the designated counterfire battery on those enemy PAAs. This sounds simple in theory, but it is difficult in practice in a dynamic training environment. The Thunder Battalion team members needed a lot of reps and coaching from our excellent division fires and DIVARTY teammates, but it paid off.

Another important part of being a learning organization is to avoid self-defeating unforced errors. In this vein, we talked about "the 4 S's" (safety, standards, sensitive items, and security) for months before the JRTC rotation. Nothing can derail a training exercise as quickly as a significant safety issue, which is exactly what happened the first time the battalion deployed to the field after Hurricane Laura. The battalion experienced two accidents before making it from garrison to the training area. Needless to say, when Soldier safety has been put at risk in an accident, the training imme-diately takes a back seat. There is always time to retrain, but you cannot un-injure a Soldier. The effect of losing a sensitive item is similar to that of an accident since train-ing grinds to a halt to find the missing item. The third "S" is standards, discussed previously, highlighting the correlation between standards and training readiness. The fourth "S" is security, discussed at length in the following paragraphs. If leaders intently focus on the 4 S's, they will avoid those major distractors that greatly inhibit learning.

Near the end of LTP, COL Hardman pulled all the battalion commanders together and said, "We are going to struggle with many things during this rotation. Pretty much every unit at JRTC struggles with security. Let's at least not struggle with that." The 5-25 FA embraced that guidance. The battalion's Soldiers became diggers and tree-dwellers. These redleg warriors tucked their howitzers as deep into the wood line as they could and dug fighting positions at every PAA. In fact, during a Table XV, the DIVARTY commander half-jokingly remarked that the battalion should rename all of its batteries after animals that are known for their digging skills.

The emphasis on security worked. During JRTC, the battery commanders and I routinely talked about balancing our manning allocation between offense (firing capability), defense (local security), and special teams (capabilities like drone busters and stingers). Thunder Battalion deliberately sought out undesirable PAAs. Batteries tried to avoid the obvious PAAs in large open fields, instead opting for PAAs that might feel a little too small for an entire battery or would be difficult to traverse because of the vegetation. That didn't mean the batteries won all their close-in firefights at the PAAs, but it always came at a considerable cost to Geronimo, if they could find the batteries at all. At the final AAR, the OPFOR battalion commander said that he had an especially hard time finding the M119 105mm howitzers, that the battalion's "special teams" repeatedly damaged his reconnaissance aircraft, and that the firing platoons would not go down without a significant investment of combat power from the OPFOR. The modern battlefield is a slog, and lead-ers at all echelons must emphasize security in order to be prepared to fight to maintain combat power.

Conclusion

The success of the Thunder Battalion and the Patriot Brigade at JRTC was not luck. It did not just happen. It was the result of the confluence of multiple decisions at multiple echelons which began many months in advance. Over a beer with CSM Rodney Graves (the JRTC OC for FA battalion CSMs), I told him I was frustrated that I had struggled with many of the same trends that others struggle with during their JRTC rotations. He said, "Sir, the trends are the trends. What makes the difference between a good rota-tion and a bad rotation is always leadership." Reflecting on that conversation since, I am convinced he is right. Whether it was infantry battalions and rifle companies leading with HE at echelon, the BSB reliably feeding the guns with Class V, fire support officers and NCOs doing the best they could with what they had, or battery commanders doggedly defending the brigade's guns, leaders at all echelons achieved the BCT commander's intent:

(1) Lead with HE,

(2) Make tough but deliberate decisions about constrained resources, and

(3) Foster a culture of standards, discipline, and account-ability.

Every unit has its share of struggles at JRTC, and 5-25 FA was no exception, but its success in employing fires largely stemmed from those three factors.

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Finding the Right Talent:

The 2-357th Infantry Battalion's Officer Marketplace Experience

MAJ L. BURTON BRENDER

I am the executive officer (XO) of an observer-coach/trainer (OC/T) battalion in First Army, the U.S. Army major command responsible for training National Guard units for combat deployment. Like most units Army-wide, mine interviewed applicants in the 22-02 officer talent marketplace, which occurred in the fall of 2021.

Several features of this marketplace were distinct from the preceding cycle. Chief among these was a prohibition against openly declaring exact preferencing, meaning that neither applicant nor unit could declare just how highly or lowly they prioritized each other. A close second to this condition was the downplaying of one-to-one matches between the unit and applicant. Formerly, a one-to-one match was a guarantee of assignment revocable only by certain specialty considerations or the vice chief of staff of the Army. The logic behind these newly imposed injunctions, according to instructions issued to participants in the marketplace, was to discourage all parties from settling on safe choices instead of asking for what they really wanted. By instructing the market not to share its preferences, Human Resources Command (HRC) intended that applicants would be challenged with the most developmental assignments, and units would receive the most motivated candidates.

While I am unable to comment on how well this cycle achieved these ends (since at the time I wrote this the results of the board had not been released), I can share how these considerations affected my battalion's candidate selection process. Specifically, it challenged us to clarify what we wanted in an officer, to develop a methodology that identified desirable traits, and to choose between multiple qualified candidates. Lastly, it left us with a few lingering challenges for next time, which I will briefly share with you.

What Our Unit Was Seeking and Why

My OC/T battalion — the 2nd Battalion, 357th Infantry Regiment — wants several key things in an officer: intrinsic motivation to be an OC/T, the mental maturity and experience to be value added, and an organizational focus (meaning, they do not want the job for any reason other than the work itself). Conversely, what we did not want were people disinterested in observing, coaching, and training, and neither did we want anyone who had not at least cursorily researched who we were. As such, we evaluated lowly anyone who seemed to want the job for the wrong reasons, such as only seeking a perceived desirable location (the Pacific Northwest) or gave the appearance of chasing an easy job (a charge often leveled against "AC/RC" [Active Component/Reserve Component] units). To distinguish one group from another, we used the following methodology.

Interview Methodology

Our process consisted of three phases: gathering desired applicants, conducting an initial interview to identify best talent, and performing a second interview to choose between top candidates. The first phase was to compile a master list of all the officers who signaled interest in our unit plus anyone we knew personally and invited to compete. These individuals were offered an initial interview.

For that interview, my battalion created a panel of four members consisting of two officers and two NCOs. One of the officers was always the battalion XO (me), who served as the chair; the second officer was a sitting team chief (our name for a company command trainer). The other two panel members were one senior NCO and one junior NCO.

This mix allowed for several things. Having the chair be an officer senior to the applicant provided gravitas, while having an officer equal in rank, hopefully, offered candor. The senior and junior NCOs both provided uniquely enlisted points of view, especially in spontaneous follow-up questions, while also signaling that our unit values professional relationships between the commissioned and non-commissioned corps. These individuals took turns asking interview questions to the candidate.

The initial interview was the lengthiest of all the phases and the most in-depth. Its purpose was to identify those who met screening criteria (could this person do the job if he/she had to) and who was best talent. Those put into this second category were marked for a follow-up interview with the battalion commander.

Our 20- to 30-minute initial interviews were conducted entirely by telephone, even if the applicant was local to Joint Base Lewis-McChord, WA, out of concern for fairness. Using voice-only interviews attempted to combat biases like proximity (preferring local candidates), physical appearance, race, and bling awe (what patches or badges the applicant wore), all of which were extraneous to our desired knowledge, skills, and behaviors. To further remove these externalities from our decision making, we did not allow our interview panelists to

see the applicants' record briefs or ask any questions about previous ratings.

We also deliberately did not take into consideration qualifications that were not directly relevant to the job, specifically things like Ranger, air assault, or airborne qualifications; previous evaluation reports; and years of service beyond the minimum qualification of being post-command. While this might run contrary to common Army logic (i.e., past performance is the greatest indicator of future performance), that decision-making shorthand does not always hold up, and often people make choices based on superficial indicators alone. For instance, people who have served in prestigious units might be excellent trainers, and then again, they might not; likewise, Soldiers with great or poor ratings in their last three evaluations might repeat those performances, or they may not.

At the end of each interview, the panelists independently voted (again, on whether applicants met screening criteria and if they were recommended for second interviews) before any discussion was allowed. Once everyone finished voting, the group shared their observations, which sometimes persuaded members to change their choices, but not often. Once reconsidered votes were turned in, the chair made the final decision on whether to advance the applicant to the final interview or not (an authority usually only exercised when the panel was tied). The battalion commander deliberately did not participate in initial interviews to avoid biasing the panel.

This method allowed the panelists to focus more exclusively on the attributes we identified as necessary and desirable. To that end, we crafted a number of interview questions that attempted to ferret out the kinds of officers we were looking for. Below is a sampling of what the panel used.

- *There are a lot of options in the marketplace, what made you express interest in us?* This question probed why they were interested in being an OC/T for the National Guard.

- *What do you understand is the mission of our battalion?* The surest way to impress any board with one's earnestness is to have done your homework.

- *When training you have been a part of has been effective; what made it that way? Conversely, when training went poorly, what made it so bad?* Here we judged applicants' understanding of how to create an effective training environment.

- *What is a professional area you are focused on improving?* This is the last question we asked before letting the candidates question us, and not surprisingly it was one of the most important. This question, of course, is a rewording of what are your weaknesses, but presented obliquely in the hopes of discouraging the humblebrags so frequently heard in interviews (things like: I work too much or I'm

too strict with Army standards). If the panel at any time felt the candidate gave an uncandid or unintrospective answer, it screened that individual out.

At the end of primary interviews, the panel chair collated all the applicants (and non-applicants, those officers in the marketplace who we were not interviewing) into three tiers: top talent (those recommended for second interviews), middle talent (those who were acceptable but not best fitted), and bottom talent (those who did not interview or interviewed poorly). This striation facilitated the forced ranking of all officers in the marketplace, not just our preferred candidates, which was another HRC requirement of the talent cycle.

At this point, we entered the third and final phase of the hiring process, the interview with the battalion commander. The commander was enabled in this by a list of all those individuals identified as top tier, listed in no particular order, with a short explanation of why the panel chose them. These individuals then sat for a 10-minute telephonic interview with the commander, who applied his judgment and rank-ordered the candidates from most desired to least. These results were then returned to the XO who input them into the Assignment Interactive Module (AIM) website.

Who Interviewed Well, and How We Chose Between Them

While a critic could say the jury is still out on whether our methodology worked, what my unit can confidently say is that our process offered excellent chances for talent to identify itself. I feel assured of this because our panel, which rotated through approximately 10 officers and NCOs, routinely felt it could distinguish between a good answer and a bad one. To illustrate better and worse responses, I will again refer to our questions.
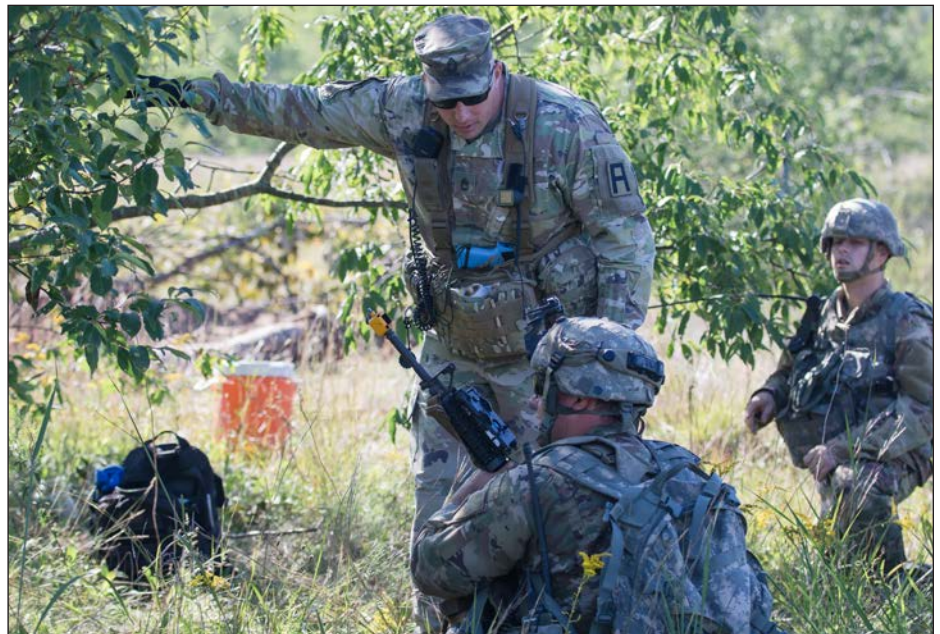

Photo by SSG Asa Bingham

A Soldier assigned to 2nd Battalion, 357th Infantry Regiment provides feedback to National Guard Soldiers during an exercise at Camp Grayling, MI, on 16 August 2020.

There are a lot of options in the marketplace, what made you express interest in us? Good answers were things like: I want to give back to the force, or I used to be in the National Guard and I want them to succeed. Bad answers included: Joint Base Lewis-McChord is in a beautiful part of the country, and I hear you guys don't work very hard.

What do you understand is the mission of our battalion? Good answers went something like: You train National Guard units on the West Coast to deploy, while bad answers were universally permutations of I don't know.

When training you have been a part of has been effective, what made it that way? Conversely, when training went poorly, what made it so bad? There were myriad good answers to this like: Thorough planning leads to success, and defining the training goal tells Soldiers what to aim for. However, poor answers usually hovered on buck-passing statements like: When the people around you suck.

What is a professional area you are focused on improving? Good answers to this demonstrated applicants were both self-aware and humble, as realized by statements like: Sometimes it's hard for me to tell my boss bad news, and when I'm frustrated I get short tempered. We never counted any forthright answer against an applicant because most of the things they said were shortcomings found in everyone — in fact, we preferenced them highly for knowing themselves. Furthermore, good answers became excellent ones when the candidates included their mitigation techniques for their own deficiencies, such as I make bad news easier to swallow by offering a solution at the same time.

Lingering Challenges

While I believe this system worked for 2-357 Infantry, it did present several difficulties and drawbacks. The first was an intense time and manpower cost. To be scrupulously fair and thorough, each primary interview took up to half an hour (and this cycle we interviewed 30 applicants). This totaled 15 hours of interviews, not counting the time required to schedule candidates and other administration. While this workload was generally spread out among many leaders within the battalion, the panel chair and the commander were committed for nearly the entirety. By necessity, the 22-02 market cycle became a deliberate item on the battalion training calendar.

Another obstacle was the technicalities of conducting telephonic interviews, especially with applicants outside of the continental United States. We found that several applicants in Europe and Asia could only communicate through civilian smartphone apps, which were both of dubious audio quality and completely unsecure.

Still bigger problems were deciding what we wanted in applicants, crafting questions that identified them, and then choosing between more than one completely qualified applicant. Delineating what we wanted came down to a series of discussions between the commander, command sergeant major, and XO, who ultimately decided upon a discreet and mission-focused set of knowledge, skills,

> *What I do know with certainty now, though, is that the methods my unit used operationalized two key beliefs in our command. The first of these is that job performance matters and those who are best fitted for the work, both in desire and competency, deserve the job.*

and behaviors. These became the core of our interview questions. The initial draft of these was a short and simple body of queries that our first panelists quickly found to be inadequate.

As early as the second day of interviews, we had refined and expanded our questionnaire three times until we reached a version that all felt was adequate. By far the greatest challenge, however, was deciding between multiple qualified and talented choices in our top-tier pool. Admittedly, some of how we arrived at recommending one individual be #1 and another be #2 was intuitive and subjective, especially in the second interview. At the same time, the panel process that differentiated top talent from middle and bottom grades was rigorously formal and uniform. Still, the agonizing decisions between many best-qualified people had one silver lining: no matter who we chose (or, more accurately, the AIM algorithm chose), we would receive a high-quality officer.

Conclusion

Time will tell if the Army's conditions on this market cycle and my battalion's methods produced competitive officers for the force and good fits for our organization. What I do know with certainty now, though, is that the methods my unit used operationalized two key beliefs in our command. The first of these is that job performance matters; those who are best fitted for the work, both in desire and competency, deserve the job. The second is that characteristics often used to paint one officer good and another bad, like how many qualification badges he or she has, are poor tools for choosing a good fit for jobs that do not directly use those skills. I suppose that last statement is open for debate, but our presupposition in 2-357 Infantry is that winning matters, and best talent is identified by directly applicable knowledge, skills, and behaviors — and nothing else.

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Sustaining the Warfighter in the Arctic

CPT CHRISTOPHER MAWN

In the summer of 2021, I learned that I would be changing duty stations from Fort Drum, NY, all the way to Fort Wainwright, AK, to join the Arctic Wolves of the 1st Stryker Brigade Combat Team (SBCT), 25th Infantry Division. I was beyond ecstatic to have the opportunity to serve in America's last frontier as a junior logistics captain in the U.S. Army. As I was chatting with my peers about my upcoming move, all of my colleagues informed me how difficult it will be to conduct sustainment operations in Alaska's arctic conditions. Fighting and winning on the battlefield in extreme arctic conditions that entail temperatures below negative 50-degree Fahrenheit requires behind-the-scenes sustainment operations that demand discipline and initiative from Army sustainers.

Army Doctrine Publication (ADP) 4-0, *Sustainment*, states: "Sustainment operations maintain Army forces by equipping it with materiel, funding it with required resources, staffing it with trained Soldiers and leaders, and by providing it with the force health protection needed." Ensuring the warfighter is properly sustained on the battlefield requires the implementation of sustainment concepts that incorporate detailed analysis at every step, especially during arctic warfare. The U.S. military currently has thousands of personnel operating and training in Alaska's frigid arctic temperatures who are capable of dominating America's enemy in arctic warfare.

In March 2021, the Army unleashed its official "Arctic Strategy" which outlines how the Army is regaining arctic dominance, particularly in America's last frontier. "The Arctic, a vital area containing many of our nation's natural resources and key shipping channels, is a platform for projecting global power and a possible avenue of attack in conflict. This enhanced Arctic capability will increase the Army's ability to operate in extremely cold weather, mountainous, and high-latitude environments and supports the DoD's Arctic Strategy."[1] The implementation of the Army's Arctic Strategy birthed one of the newest Army training exercises, a full-scale training exercise located in the heart of Alaska that is comparable to a rotation at the Army's National Training Center and Joint Readiness Training Center. The key difference between training in Alaska versus training in the lower 48 is the ability to stress arctic capabilities, especially sustaining and maintaining Army assets.

Soldiers with the 1st Stryker Brigade Combat Team, 25th Infantry Division conduct a live-fire exercise in Alaska during Joint Pacific Multinational Readiness Center Rotation 22-02 on 15 March 2022.

Photo by Benjamin Wilson

In the fall of 2021, I had the experience of a lifetime that allowed me to see first-hand how the arctic can cripple sustainment operations during my first arctic field training exercise (FTX). Traditionally, warfighters are sustained on the front lines through the "Train" concept, which entails a common operating picture that enables the forward support company (FSC) to transport food, water, ammunition, and medical supplies to the warfighter. The FSC is supplied by the brigade support battalion (BSB), which is supplied from the division sustainment support battalion (DSSB). This concept briefs well on paper, but what about when vehicles don't move because their engines are frozen or the transporter is not able to drive because of snow mounds blocking the roadway? Learning to adapt to arctic conditions is something that all Arctic Wolves learn to do while they are stationed in Alaska, and it is truly remarkable how quickly the adaptation occurs.

Photo by SSG Christopher Dennis

Soldiers from the 1st Stryker Brigade Combat Team, 25th Infantry Division conduct reconnaissance at Donnelly Training Area, AK, on 22 March 2022.

My primary responsibility during the fall FTX was to gain experience on how the FSC overcomes arctic obstacles, take note of any shortfalls, and use these lessons learned when I assumed company command days after the completion of the exercise. The exercise lasted approximately two weeks and was a great introduction to how the Army can provide sustainment in frigid temperatures. The bulk of logistical issues that we came across during the exercise involved vehicles that either would not start or became stuck in snow-covered ditches. Vehicles that don't start have second and third-order effects, especially when those vehicles are relied upon to provide sustaining capabilities. One way that our unit was able to ensure most of our vehicles would start when required was not allowing them to be turned off for more than a certain amount of time. During our exercise, we relied on extremely competent NCOs to enforce this, even during the night.

During my first Leader's Time Training in Alaska, I learned that correct placement of snow chains on Army vehicles during convoy operations is paramount in ensuring vehicles do not slide off of the icy roads that often leads to vehicles being stuck. Applying snow chains properly onto tires seems simple enough; however, it is a time-consuming process that can go awry if the chains are not secured properly. The summed-up version of properly securing snow chains onto Army vehicles is laying them flat behind the back tires, backing the vehicle just less than halfway over the chain, and then laying the remainder of the chain over the tire and securing the fastener. More often than not, vehicles that were stuck in snow ditches often did not have their snow chains applied properly to the rear tires.

Extreme arctic conditions that are experienced every winter in Alaska demonstrate how Soldiers rely on sustainment operations at every step on the battlefield. From the instant warfighters enter the environment, the arctic begins to reveal the brutal truth of how quickly negative temperatures can stagger sustainment operations. The 1-25 SBCT has proven to the Army how crucial sustainment operations are to surviving life-threatening arctic elements. The frigid cold can affect ammunition and firearms from firing properly, wreak havoc on warfighting vehicles, and narrow the chance of a Soldier receiving a hot meal. Applying arctic-enduring lubrication on firearms is not only suggested but a necessity for firearms to work in Alaska's negative temperatures. One of the Army's favorite modern advances is the invention of the Meal, Cold Weather (MCW). The MCW replaces the traditional Meal, Ready to Eat (MRE) in frigidly cold conditions; it provides more calories to the warfighter and is freeze-dried food that is heated up and served hot. Speaking from experience, not only is the MCW filled with more calories and snacks than the traditional MRE, but having a physically hot meal enter the body also provides positive mental stimulation. For those interested, the spaghetti MCW is almost always the first to be eaten.

The 1-25 SBCT is one of the only units authorized the wear of extreme cold weather gear as an everyday duty uniform from September through April. The unique seven-layer system ditches the traditional Army OCP undershirt, blouse, trousers, patrol cap, and boots for a much warmer approach, allowing Soldiers the ability to fight without needing an external heating source. Vital to the success of the seven-layer system is the additional implementations of arctic mittens and "bunny boots," which will keep fingers and toes warm deep into the negatives. On my first day in the field, I found myself having to switch from my normal winter gloves and boots into

my Arctic mittens and bunny boots, and while I almost began laughing at my appearance, my fingers and toes began to feel warm almost instantly. A common phrase you will hear Soldiers say is that while the Army has its challenges, it does a great job at keeping its Soldiers warm.

In addition to being issued arctic equipment, learning how to properly use these items is just as important when sustaining a large combat power. The Army's Cold Weather Orientation Course (CWOC) is designed to demonstrate to leaders the importance of understanding how the seven-layer system protects against the frigid cold. This weeklong course instructs Soldiers on the proper wear of arctic equipment as well as teaches the basics of snow-shoeing and combat skiing. Fewer cold-weather injuries on the battlefield means less-strained medical assets, allowing them to focus instead on combat-related injuries.

Vehicle maintenance is the bane of every Soldier's existence, and in the arctic maintenance can be more miserable than most can imagine. When a vehicle breaks down or requires annual and semi-annual services, it must be warmed up before being worked on. To combat the arctic's brutal weather, Fort Wainwright built winter maintenance facilities (WIN-MATs). Army vehicles that can't be stored in WIN-MATs that require maintenance must first be defrosted before they are even able to be worked on due to the lubricants and bolts being nearly frozen. Nearly every battalion within the

Photo by John Pennell

Soldiers from 3rd Battalion, 21st Infantry Regiment move through Donnelly Training Area in Alaska on 22 March 2022 as part of Joint Pacific Multinational Readiness Center Rotation 22-02.

Arctic Wolves has been augmented with a WIN-MAT to store Strykers and sustainment vehicles. These facilities provide exceptional coverage from arctic temperatures, snow, and ice; however, another challenge to being in Alaska is the availability of parts.

Maintenance parts including bolts, screws, tires, steering wheels, starters, and axles are rarely manufactured in America's last frontier. These parts are often shipped via vessel to the ports of Alaska and then transported over land utilizing the Alaskan Highway. Snowy white-out conditions can hinder this travel; however, Army mechanics are experts in fabricating maintenance parts and thinking outside of the box to ensure Arctic Wolves are always ready to fight and dominate the enemy in close combat. I have the privilege of having roughly 40 mechanics assigned under my command, and the work ethic that is executed daily to combat the arctic elements continues to shock me daily.

One way that the Army could continue to improve sustainment operations in the arctic is by entertaining the idea of an Arctic modified table of organization and equipment (MTOE). With the exception of tents and heaters, arctic units use the same equipment utilized by units in the rest of the country. Introducing Army fuel trucks and palletized load system vehicles that are equipped with advanced batteries and spiked tires would likely increase sustainment capabilities in the arctic ten-fold. If the Army's Arctic Strategy incorporated a revamped MTOE that replaced traditional Army equipment with arctic-specific equipment, arctic Soldiers would be able to sustain and maintain the warfighter at levels previously unimagined.

The U.S. Army has done an exceptional job over the years of sustaining its Soldiers in the arctic, and as it continues to recognize the importance of arctic dominance, the more effective sustainment operations will be, especially with the potential implementation of an arctic MTOE. As I prepare to enter Alaska's first arctic combat training center rotation as an FSC company commander, I am excited to demonstrate how properly planning and preparing to sustain and maintain in the arctic will enable frontline Soldiers to crush their opposing forces.

Notes

[1] U.S Public Affairs, "Army Announces Release of Arctic Strategy," 28 February 2022, accessed from https://www.army.mil/article/244261/army_announces_release_of_arctic_strategy.

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The 10th Mountain Division and the 1st Brazilian Expeditionary Infantry Division during Operation Encore, 1945

LTC GUSTAVO T. NAKASHIMA, BRAZILIAN ARMY

World War II involved, directly and indirectly, countries from all continents. The formed alliances conducted multinational operations in different theaters of operations, which demanded a high level of cooperation and generated lasting relationships. The Italian campaign between 1943 and 1945 involved two Allied armies: the U.S. Fifth Army and the British Eighth Army. In addition to U.S. and British troops, units from France, Australia, Italy, Canada, Poland, New Zealand, Greece, South Africa, India, and Brazil also participated in the campaign.

During this period, the Allies sought to free Italy from German domination as well as to force the Axis to maintain part of its forces in this region, which would allow for better conditions for the Allies entering Europe from the north. After initially invading Sicily in July 1943, the Allied forces then continued to advance south-north, repelling the German defenses.

In the summer of 1944, the most experienced troops were redeployed for the invasion of France, the main Allied effort. At this point, the Allied advance in Italy had been stopped by the Gothic Line, a German defensive line that extended from east to west that took advantage of the Apennines Mountains to exert advantageous dominance over the attacker.

Between the second half of 1944 and January 1945, the 1st Brazilian Expeditionary Infantry Division (EID), the 10th Mountain Division, and the 92nd Infantry Division joined the present forces to recompose the Fifth Army. With little combat experience, these divisions took important steps to keep the Allies moving forward. Particularly, Operation Encore, which was led by the 10th Mountain Division with the participation of the 1st Brazilian EID, allowed the Allies to break the Gothic Line. This operation, in addition to its immediate results, strengthened the relationship between the U.S. Army and the Brazilian Army, assisting in an association that continues to the present day.

Activated in July 1943, the 10th Light Division (Alpine) was created to focus on mountain warfare. These first two years of intense training and tactical innovations would prove critical to success in Italy. Although it was atypical, the recruitment of much of the division was carried out with the support of civilian organizations (National Ski Association and National Ski Patrol), prioritizing previous skills in climbing techniques and snow sports. This was very useful as the Soldiers already had technical knowledge and just had to adapt it to combat. In addition, the division now had highly educated, above-average military personnel. During this period, the division overcame several challenges in order to become combat ready: constant replacements of Soldiers; physical prepara-

U.S. Army photo

Soldiers in the 10th Light Division (Alpine) train for mountain warfare.
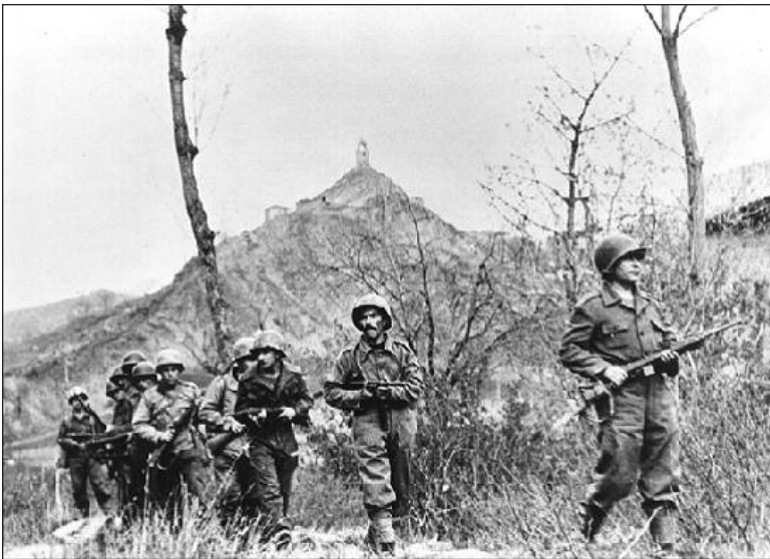
https://en.wikipedia.org/wiki/Battle_of_Monte_Castello

Soldiers of the Brazilian Expeditionary Force maneuver during the second assault of the battle of Monte Castello on 29 November 1944 near Corneta, Italy.

tion for the rigors of high mountain combat; and specific training in mountaineering, skiing, and winter techniques. These challenges were in addition to the complications that came with organizing a new division with unique characteristics.

As the difficulty of advancement increased on the fields of Italy, the U.S. Army began to prioritize the preparation of the division, increasing its personnel and equipment. In November 1944, the division was reorganized as the 10th Mountain Division.

Totaling 14,101 men, the division had almost 1,000 more Soldiers than a standard infantry division. It included 85th, 86th, and 87th Mountain Infantry Regiments; division artillery with four field artillery battalions (604th, 605th, 616th, and 1125th); 126th Engineer Battalion; cavalry reconnaissance troop; anti-tank, medical, and quartermaster battalions; Special Troops; and the headquarters. This exclusive division also included the 10th Mountain Cavalry Recon Troop, a horse-mounted unit. Consequently, the 10th Medical Battalion included one veterinary company. The 10th Quartermaster Battalion also included three pack-mule companies and one truck company. The artillery had three 75mm howitzer battalions and just one 105mm full-tracked howitzer battalion.

The new 10th Mountain Division arrived in Italy in January 1945 and was incorporated into Fifth Army. With only the expertise of U.S. commanders and its recent training, the division needed to adapt its organization and equipment during its baptism by fire.

As the main effort in Operation Encore, the division had two weeks for reconnaissance, rehearsals, and preparation. Intense intelligence work made it possible to collect accurate data from the enemy and the terrain, which proved essential for the success of the operation. Data was collected mainly by surveillance patrols (using skiing techniques), dismounted patrols, and air reconnaissance.

With this intelligence, leaders chose the best trails to use with little enemy presence.

The detail of the data collected in the reconnaissance generated necessary revisions in the organization of the troops for the operation. Five trails were identified that could support the companies' movement. On each of them, the enemy presence and the ground were very well observed. With that information, plans for each trail were devised. Some required more rope and climbing assets while others required pioneer squads to support building hasty bridges. The daily details and updates allowed the rehearsals and combat preparation to be conducted very efficiently.

The path that led the 1st Brazilian EID to Operation Encore, where it met up with the 10th Mountain Division, was quite different. The division's WWII preparation was very precarious. Created in August 1943 (roughly the same period as the 10th Mountain Division), the division was supposed to be able to carry out small-scale, limited-time operations against terrestrial elements of any kind. Brazilian political and economic conditions hampered the mobilization and preparation of the 1st EID. In fact, much of the unit's equipment, armaments, and uniforms were delivered straight to the theater of operations.

The first contingent, out of a total of five, arrived in July 1944 and was incorporated into Fifth Army. This contingent received additional training in Italy before being employed in combat. The other contingents were trained during the fighting, which began in September 1944. The battles of Massarosa, Camaiore, and Monte Prano were followed by other victories in combat that gradually provided the Brazilian soldiers with experience and lessons learned.

In November 1944, 1st EID received the mission to conquer Monte Castello, part of the Gothic Line. Defended by the Germans, this line impeded the Allied advance towards the north. Between November and December, four attempts failed due to incomplete reconnaissance, mountainous terrain, deficiencies in coordination between forces, and poor tank, artillery, and aviation support. With the onset of winter, Fifth Army began the Winter Defensive, preparing for a future onslaught.

The fifth and last contingent arrived in February 1945. At that time, the 1st EID was organized in three infantry regiments (1st, 6th, and 11th), a division artillery with three 105mm field artillery battalions and one 155mm field artillery battalion, the 9th Engineer Battalion, a medical battalion, the 1st Flotilla of Communication and Observation, and a cavalry troop, totaling 25,334 soldiers.

A spring offensive was then planned for February 1945. With the milder weather and the arrival of the 10th Mountain Division, the Fifth Army — reorganized and resupplied — gathered more resources to break the German defensive line. It was necessary to conquer the line of elevations that dominated the Po River Valley to secure Highway 64. For
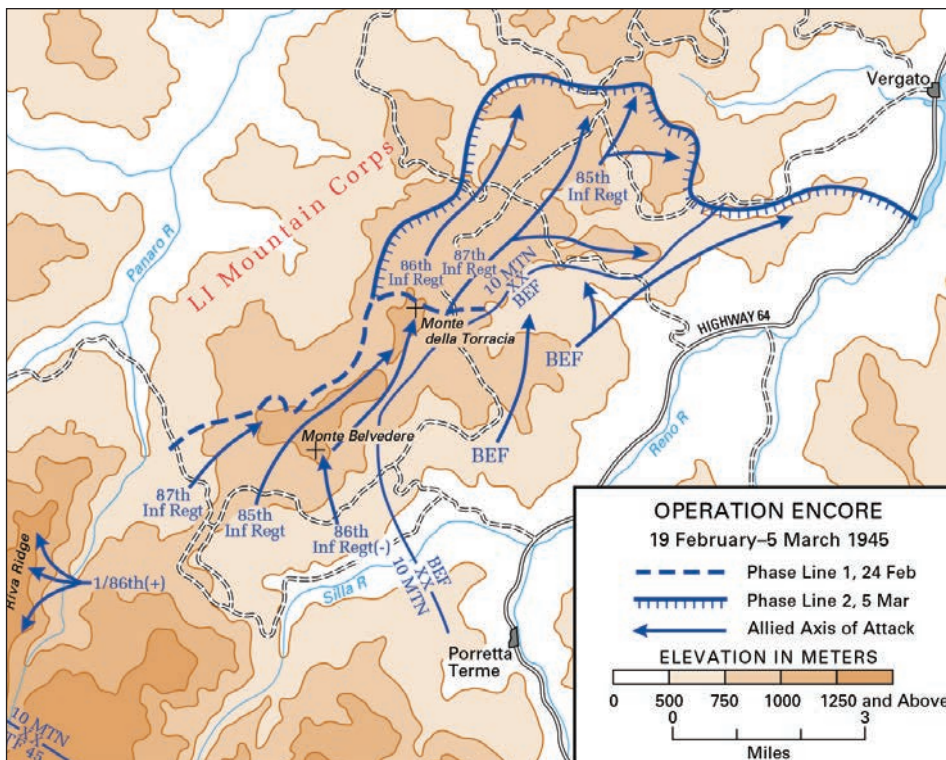
Graphic from *North Apennines, The U.S. Army Campaigns of World War II*

Map — Operation Encore

this, Monte Belvedere and Monte Gorgolesco were chosen as the main initial objectives, and later Monte Castello and Monte Della Torraccia.

The 10th Mountain Division received the mission to carry out the main attack. Its baptism by fire began on 18 February 1945, with the mountain Soldiers of the 1st Battalion, 86th Mountain Infantry leading the way. Using the darkness, through previously recognized access routes with difficult access, the assault climber teams conducted a successful surprise attack on Riva Ridge, a position that would allow the attack on Monte Belvedere. Each assault climber team laid pitons and affixed ropes for follow-on forces to climb the rock.

After bolstering the position with supplies, ammo, heavy weapons, and artillery, the 10th Mountain Division assaulted Monte Belvedere on 19 February. This time, the Germans were prepared to repel the attack. With strong fire support, meticulous planning, and the commitment of units, leaders, and soldiers, the Allied attack was successful and allowed the 1st EID and the 10th Mountain Division to advance.

The 10th Mountain Division and 1st EID then attacked and conquered Monte Della Torraccia and Monte Castello. This time, after four failed attempts over the past winter, the attack was successful. Once Monte Belvedere was secure, the assault could be carried out with the flank protected. After 12 hours of a frontal attack, the 1st EID conquered Monte Castello.

From there, the two divisions continued their advances in a coordinated manner, with the Brazilian division protecting the right flank of the 10th Mountain Division. From 23-25 February, the Brazilians occupied La Serra and supported the 10th Mountain Division to seize Monte Terminale.

In the second phase of the operation at the beginning of March, Fifth Army conquered a new line of elevations. Side by side again, the 10th Mountain Division conquered the line of hills (Monte Grande d'Aiano, Monte della Spe, Monte della Castellana, and Monte Valbura) while the 1st EID, on the right flank, conquered Castelnuovo.

On 8 March, Operation Encore ended. With satisfactory results, the 10th Mountain Division and 1st IED had advanced 25 kilometers from Bologna, a favorable position for the Allies.

The success of Operation Encore after the failed Allied advance attempts taught important lessons that are useful in modern combat. Unconventional environments require unique training. The mountainous environment where the German defensive line was located provided a great advantage for the defender. To break it, it was necessary to employ climbing techniques in places of difficult access in order to surprise the German troops. The creation and employment of the 10th Mountain Division, a troop specializing in this environment, was critical to the success of Operation Encore. The need for specialized training can still be observed today in extreme cold, mountainous, and jungle environments, among others.

The detailed study of terrain and enemy led to the best choice of access routes that surprised the enemy. As a result, the achievement of initial goals occurred quickly and with few casualties. For this to happen, several patrols were launched in regions very close to the enemy's defensive line. Despite the numerous technological means that are currently available, reconnaissance troops are still indispensable.

The synchronization of available means was also a fundamental factor in the success of Operation Encore. This allowed for the flank security of both pieces of maneuver forces and allowed for mutual support between the two divisions in the first echelon. In addition, fire, air, and artillery support were synchronized, allowing the infantry to advance into hard-to-reach places. Currently, there are more sophisticated ways to perform synchronization. On the other hand, it is much more complex as it involves more means in different domains, including space and cyber, in multi-domain operations.

Shortly after World War II, both the 10th Mountain and 1st EID were deactivated. During the Cold War between 1948 and 1958, the 10th Mountain Division was reactivated without the "Mountain" status. In 1985, it was again activated under

the name of 10th Mountain Division but without the exclusive mountain warfare capability. Since then, it has sent troops to Operation Desert Storm in 1990 in Iraq; Operation Restore Hope in 1992 in Somalia; Operation Uphold Democracy in 1994 in Haiti; Operation Joint Forge in 1998 in Bosnia; and the war on terrorism in Iraq and Afghanistan.

The 1st EID has never been activated again. However, the 1st Army Division inherited its legacy and historical name. Since then, the division has sent troops to the United Nations Emergency Force in 1956 in the Suez Canal; the Brazilian Detachment of the Inter-American Armed Force in 1965 in the Dominican Republic; United Nations peacekeeping missions in 1993 in Mozambique, in 1995 in Angola, and between 2004 and 2017 in Haiti.

In 2013, the 1st Army Division turned one of its brigades into the 4th Mountain Infantry Brigade. Based on the expertise of the 11th Mountain Infantry Battalion, which participated in the 1st EID campaign in World War II, this brigade started to develop specific techniques for the peculiar environment as well as continued to act as a regular light infantry brigade.

Since the joint effort in World War II, relations between the Brazilian and the U.S. Army have been strengthened through agreements, doctrinal exchanges, military equipment, and partnerships. More recently, in 2021 a joint training exercise was carried out with a Brazilian infantry company inserted into a U.S. battalion. It is hoped that this training will take place periodically, further strengthening the link between the Brazilian and U.S. Armies. The historic bond forged between the 10th Mountain Division and the 1st EID continues to bear fruit, and joint training is most significant in light of the pervasive threats of modern combat and the need for multinational operations.

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Artwork courtesy of the U.S. Army Center of Military History

The artwork at left is from the U.S. Army Center of Military History poster collection; its description reads: Because of the Brazilian Expeditionary Force (BEF), Brazil had the distinction of being the only Latin American nation whose participation in World War II was represented in division strength... In 401 days of continuous operation as part of the IV Corps, the Brazilians took part in the liberation of 24,580 square miles of Italian soil, including more than 600 towns and cities. One of the unit's more memorable engagements was an attack in support of the IV Corps' 10th Mountain Division assigned to take a series of mountain peaks and ridges which had been used by the Germans to observe U.S. troop movements along one of the two main arteries to Bologna and the Fifth Army's front.

Two objectives of the Mountain Division's attack were Riva Ridge and the Monte Belvedere-Monte della Torraccia. Riva Ridge was a cliff that rose almost 1,500 feet from the valley floor, all of which had to be scaled prior to gaining access to Monte Belvedere. Covering on the right, the BEF was to hold a three-mile sector between the Mountain Division's right flank and the Reno River in front of the Fifth Army. During the operation, the BEF seized Monte Castello, about one mile southeast of Monte della Torraccia. Soon after nightfall, on 23 February 1945, the Brazilians assaulted the crest and seized their objective, thereby protecting the Mountain Division's right flank from enemy counterattack.

Featured in the painting are members of the Brazilian Expeditionary Force in the final stages of defeating the enemy on Monte Castello. The men of the BEF are firing an 81mm mortar and are attired in typical American uniforms of the World War II period: wool trousers, M1943 field jacket, and the modified M1910 individual equipment which included the M1 rifle, M1 carbine, and the M1A1 Thompson submachine gun.

The Russian Army and Maneuver Defense

DR. LESTER W. GRAU
DR. CHARLES K. BARTLES

In the practice and application of historical analysis, the Russian General Staff closely examines details of past conflicts — noting what they learned and even unlearned — to keep their military science and training forward-looking. Maneuver defense is one of those lessons.

Russia's Strategic Defense

Russia and the Soviet Union fought successful major wars using strategic defense and withdrawal. Russia defeated Napoleon by initially conducting a strategic defense and multiple withdrawals, followed by decisive counterstrokes.[1] Up to his invasion of Russia, Napoleon's strategy proved superior to that of his enemies and his operations were primarily offensive. Napoleon was often successful in surrounding an enemy army or defeating it in one decisive battle and then occupying its capital city and taking charge of the country.[2]

A 1920 painting depicts Napoleon's retreat from Moscow.

Russia defeated Napoleon's invasion by losing battles, yet maintaining and rebuilding its army throughout successive retreats. As the army retreated, the Russians set fire to their own crops and villages, leaving scorched earth behind. Napoleon seized Moscow, yet Russia still refused to surrender and soon flames consumed Moscow. Napoleon had reached his culminating point, and his supply lines stretched to breaking. Russia was fighting a strategy of "war of attrition," whereas Napoleon was fighting a strategy of "destruction."

A Russian "inverted front" grew in Napoleon's rear area as guerrilla forces attacked Napoleon's already inadequate supply columns and eroded his fighting strength. There were two types of guerrilla groups. The first were volunteers who took up arms against the enemy and had no affiliation with or support from the Russian government. Theirs was a popular "people's war," even though some of these guerrillas were little better than opportunistic highwaymen and freebooters. There was little coordination between the Russian ground forces and the "people's war" guerrillas.

The second type were government-paid, -led, and -equipped cavalry and Cossack forces formed into "flying detachments" of up to 500 uniformed or non-uniformed combatants who worked in coordination with the army and attacked the enemy flanks and rear.[3] Both types of guerrillas were important in the war, but the need for central control was obvious.

The Russian army refused to provide Napoleon with the opportunity for a decisive battle that would fit his strategy of destruction. Napoleon began his withdrawal from the ashes of Moscow on 16 October, hoping to beat the Russian winter. He did not. Napoleon abandoned his army as it disintegrated and froze. Some 27,000 soldiers of the original 500,000-strong Grand Armée survived.

In October 1813, the coalition of Russia, Prussia, Austria, and Sweden defeated Napoleon's reconstituted army at Leipzig. Just before the Battle of Leipzig, Wellington's army defeated the French army in Spain and Portugal and then crossed into France. The Russian army constituted part of the occupation force in Paris.

Their attrition strategy of fighting battles and retreating while reconstituting their force and sapping the enemy strength, coupled with a strong series of counterstrokes, worked. Russia had traded space for time, drawing Napoleon deep into Russia, overextending his supply lines over Russia's muddy, often-impassable roads and launching counterstrokes at the opportune time.

The Soviet Union did not intend to defeat Nazi Germany in this fashion, but after bungling the initial period of war, they

inadvertently emulated Tsar Alexander I by fighting a retreat all the way to Moscow while building the forces for a series of counterstrokes. This time, Moscow held while the German effort culminated and their supply lines stretched to breaking. The muddy roads and "inverted front" of Moscow-controlled guerrillas complicated an already difficult German supply effort.

After Kursk and Stalingrad, the Axis alliance was on the defensive and the operational counterstrokes of the Red Army drove the invaders out of the Soviet Union and Eastern Europe. The Red Army constituted both the initial and later part of the Allied occupation force in Berlin, deep within the Soviet Occupation Zone.[4]

Russian Maneuver Defense

Maneuver defense [манёвренная оборона] is a tactical and operational form of defense whose goal is to inflict enemy casualties, gain time, and preserve friendly forces with the potential loss of territory. It is conducted, as a rule, when there are insufficient forces and means available to conduct a positional defense.[5]

This differs from the U.S. concept of the mobile defense, which "is a type of defensive operation that concentrates on the destruction or defeat of the enemy through a decisive attack by a striking force. It focuses on destroying the attacking force by permitting the enemy to advance into a position that exposes him to counterattack and envelopment. The commander holds most of his available combat power in a striking force for his decisive operation, a major counterattack. He commits the minimum possible combat power to his fixing force that conducts shaping operations to control the depth and breadth of the enemy's advance. The fixing force also retains the terrain required to conduct the striking force's decisive counterattack."[6]

This differs from the Russian concept in that the Russians do not intend to permit the enemy to advance to counterattack. They intend to contest the enemy and reduce his forces without becoming decisively engaged. Russian maneuver battalions and brigades conduct maneuver defense, whereas the United States considers mobile defense as a corps-level fight.[7] In future conventional maneuver war, continuous trench lines, engineer obstacles, and fixed defenses extending across continents, as occurred in Europe in World Wars I and II, will not occur. According to Russian military guidance, the maneuver defense, eventually leading to a positional defense, will be their primary defense and will be conducted by the maneuver brigades as their base formation.[8]

Maneuver defense occurred in medieval Russia but was realized as a new form of combat action near the closing of World War I.[9] The first extensive use of maneuver defense occurred during the Russian civil war and was due to a variety of equipment, political, and geographic factors.[10] The uneven distribution of weapons from World War I, the uncompromising goals of the Reds and the Whites, and the expanse of the territory on which the war was fought were far better adapted to this dynamic, mobile form of combat, unlike the continuous

> *Russian maneuver battalions and brigades conduct maneuver defense, whereas the United States considers mobile defense as a corps-level fight.[7] In future conventional maneuver war, continuous trench lines, engineer obstacles, and fixed defenses extending across continents, as occurred in Europe in World Wars I and II, will not occur.*

trench-line warfare of Western Europe during World War I.

During the Russian civil war, several echelons using unprepared lines and engineer obstacles initially conducted maneuver defense. In a short time, however, it sometimes evolved to include positional defenses, coupled with active counterattacking forces that conducted flanking attacks and encirclements. Daring cavalry raids into the rear of the enemy often distracted the enemy during necessary withdrawals to new lines or positions.[11]

During the mid-war period, Western theorists such as J.F.C. Fuller discussed future war in terms of combined arms and new weapons such as the tank, airplane, and radio. The Russians had actual practical experience in this new theoretical maneuver war that their Western counterparts lacked. Granted, large horse-cavalry formations played a much larger role than the few existing tanks present in the Russian civil war, but the scale and scope of the fighting in Russia incorporated the vision of that future combat. Victory would belong to the state that could concentrate superior forces to overwhelm an enemy at a particular location and could rapidly maneuver against flanks, penetrate positions, and encircle forces to destroy a thinly spread enemy.[12]

The Red Army's 1929 field regulations used the term подвижная оборона [mobile defense] in Article 230: "Mobile defense takes place when the combatants do not defend to the end, rather slip away from the enemy and move to reinforce a new defensive line when the operational concept is that it must sacrifice a portion of territory to gain necessary time and protect the lives of the force."[13]

The follow-on 1936 and 1939 field regulations provided recommendations for the preparation and conduct of mobile defense. The 1936 field regulation envisioned two possible mobile defense maneuvers. With the first, two defensive lines would leapfrog through each other; in the second, a strong rear guard would cover a single retreating line. The 1939 field regulation slightly modified the 1936 guidance by discussing what conditions may precede initiating a mobile defense and what steps could be taken to strengthen the defense.

The 1941 field regulation changed the term to маневренная оборона [maneuver defense]: "The maneuver defense includes the conduct of a series of defensive battles

leading to successive designated lines, synchronized with short surprise counterattacks. The maneuver defense forces are included in the coordinated maneuver of the force using fires and the broad employment of all types of obstacles."[14]

The Germans invaded the Soviet Union on 22 June 1941. The Soviets tried to organize counterstrokes while they were retreating or were being enveloped. They failed. Initial positional defenses crumbled, nor could the Soviets organize a maneuver defense before it was overrun. The Wehrmacht reached the Mozhaisk defenses outside Moscow by 13 October 1941. The Mozhaisk defenses were a hastily constructed series of four lines of undermanned defensive positions.

General of the Armies Georgy Zhukov issued a special directive: "In the event that it is impossible to check the enemy offensive, transition to a maneuver defense."[15] A list of necessary planning steps and considerations followed this directive. The Germans attacked through the end of October and ground to a halt. The Soviets conducted maneuver defense in some sectors, upgraded and reinforced their other defenses, and stopped the second German offensive conducted between 15 November and 5 December; the Red Army slowly began their own counteroffensive on 5 December. The operational-level maneuver defense had evolved. Divisions and regiments mainly conducted tactical-level maneuver defense.

'To the Death'

Despite the Red Army's success using maneuver defense, it disappeared from the 1948 field regulations. The ongoing concept of the unified defense [единой оборона] precluded such a variant to positional defense. After Stalin's death in 1953, the debate over the conduct of land warfare on the atomic battlefield began. Soviet ground-force structure dramatically changed as battalions became smaller, completely motorized or mechanized, lost their organic direct-fire artillery and received T-55 tanks with lead liners to soak up the radiation. Unfortunately for the motorized rifle soldiers, their personnel carriers and trucks had no such lining, although initial planning involved driving over nuclear-irradiated zones in the attack.[16] Defense would be temporary and positional.

A lively debate began within the ground forces, positing that maneuver defense was optimum for the nuclear battlefield. Marshal of the Soviet Union R. Ia. Malinovskiy, commander of Soviet Ground Forces, ended the debate on maneuver defense, stating: "This point of view is wrong and is completely unsuitable for these times. We do not have the right to train our forces, commanders, and staffs where every commander, based on his own judgment, can abandon his [defensive] positions, regions, and belts to maneuver. ...There is one unshakeable truth with which we must conduct our lives — with unswerving stubbornness we will hold our designated lines and positions, hold them to the death."[17]

At the end of the 1980s, the USSR Minister of Defense, Marshal of the Soviet Union Dmitry Yazov, re-established maneuver defense in Soviet military theory as one of the accepted forms of defense. Technology and warfighting techniques were changing. Deep fires, distance mining, ambushes, fire sacs, air assaults, flanking, and raid detachments were changing modern war and facilitating counterattacks. Maneuver defense fit within the changing dynamics.[18]

Maneuver Defense in Contemporary Combat

Since the 1990-1991 Gulf War, ground forces have realized that unprotected maneuver in the open may lead to decimation. Less-modern ground forces have attempted to negate this by moving the fight to terrain that defeats or degrades high-precision systems — mountains, jungle, extensive forest, swamps, and cities — while conducting a long-term war of attrition to sap the enemy's political will.

Difficult terrain will also be a valuable ally in future conventional maneuver war, as will camouflage, electronic and aerial masking, effective air-defense systems, and secure messaging. Maneuver defense will clearly be a feature of future conventional maneuver war.

One thing that may change dramatically is the fundamental concept of the main, linear, positional defense to which maneuver defense leads. Perhaps the main linear defense will be anchored in difficult terrain. Perhaps the main defense will more closely resemble the security-zone maneuver defense. The main defense may become an expanded security zone containing counterstrike/counterattack forces and a concentration of high-precision weapons systems. Open flanks may be covered by maneuvering artillery fires, aviation, and positional forces not under duress.

The Russian concept of maneuver by fire may dominate the battlefield, as it alone may enable maneuver.[19] The linear battlefield may be replaced by the fragmented, or nonlinear [очаговый], battlefield, where brigades maneuver like naval flotillas, deploying maneuver and fire subunits over large areas, protected by air-defense systems, electronic warfare, and particulate smoke. Strongpoints will be established and abandoned, artillery fires will maneuver, and difficult terrain will become the future fortresses and redoubts.

Fragmented Battlefield

World War I in the West was a positional fight where artillery, field fortifications, and interlocking machine-gun fire prevented maneuver. World War I in the East, however, was not always positional but was sometimes fluid. The antithesis to the stalemate in the West was the tank. Yet the tank did not spell the end of linear defense. During World War II, the tank enabled maneuver in some places, but in other places, difficult terrain and integrated defenses prevented maneuver and fires prevailed. For example, the Korean War began with a great deal of maneuver but stalemated into positional mountain combat enabled by fires. Vietnam was about the maneuver of the helicopter, but difficult terrain dominated the battlefield.

The antitank guided missile and precision-guided munitions currently threaten maneuver. Still, advances in fires,

electronic countermeasures, robotics, and air defense may enable maneuver.

As another example of an army using difficult terrain, the Serbian army proved quite adept at hiding and surviving in it during the 78-day Kosovo air war. What they lacked was an opposing ground force to combat at the termination of the bombing.[20]

The fragmented battlefield has become common following the Gulf War. The Soviet-Afghan war, the Angolan civil war, the Chad-Libya conflicts, the Battle of Mogadishu, Operation Enduring Freedom, most of Operation Iraqi Freedom, the Libyan civil war, the Sudan conflicts, the Saudi Arabian-Yemen conflict — all have involved fragmented battlefields.[21]

How do peer forces fight conventional maneuver war on a fragmented battlefield? Permanent combined arms battalions appear to be an important component.

For decades, the Soviets and Russians have struggled with fielding, training, supporting, and fighting a combined arms battalion with its own tanks, motorized rifle, artillery, anti-tank, and support subunits capable of fighting and sustaining independently over a large area. Russian maneuver brigades now constitute one or two battalion tactical groups and are working to eventually achieve four.[22]

The Russians have a long history of conducting a fragmented defense on a fragmented battlefield. The Russian civil war is replete with such examples.[23] During World War II, in addition to its large conventional force, the Soviets fielded the largest partisan army in history. It conducted a fragmented offense and defense against a linear German force.[23] Afghanistan, Chechnya, and now Syria also featured fragmented offense and defense.

Analysis of Russian Defense

If the Russians fight a near-peer competitor, the maneuver defense may become the "normal" defense, with the positional defense as an anomaly. In a maneuver defense, within the brigade the battalion is normally assigned an area of responsibility of 10x10 kilometers (frontage and depth respectively), and a company position is up to two kilometers in frontage and up to one kilometer in depth. There is a distance of up to 1½ kilometers in depth between positions, which ensures mutual support of defending subunits and allows maneuver to the subsequent position.[25]

Figure 1 shows a Russian motorized rifle brigade in a maneuver defense.[26] Battalion positions are shown, and company fighting positions are depicted within the battalion positions, showing that the companies will fight from more than one position within each battalion position. The brigade defends against an attack from the west with its tank battalion to the north and 3rd Motorized Rifle Battalion to the south. The 2nd Motorized Rifle Battalion is deployed further to the west in forward positions and is not initially shown on this diagram.

Figure 1 — Russian Motorized Rifle Brigade in a Maneuver Defense[27]
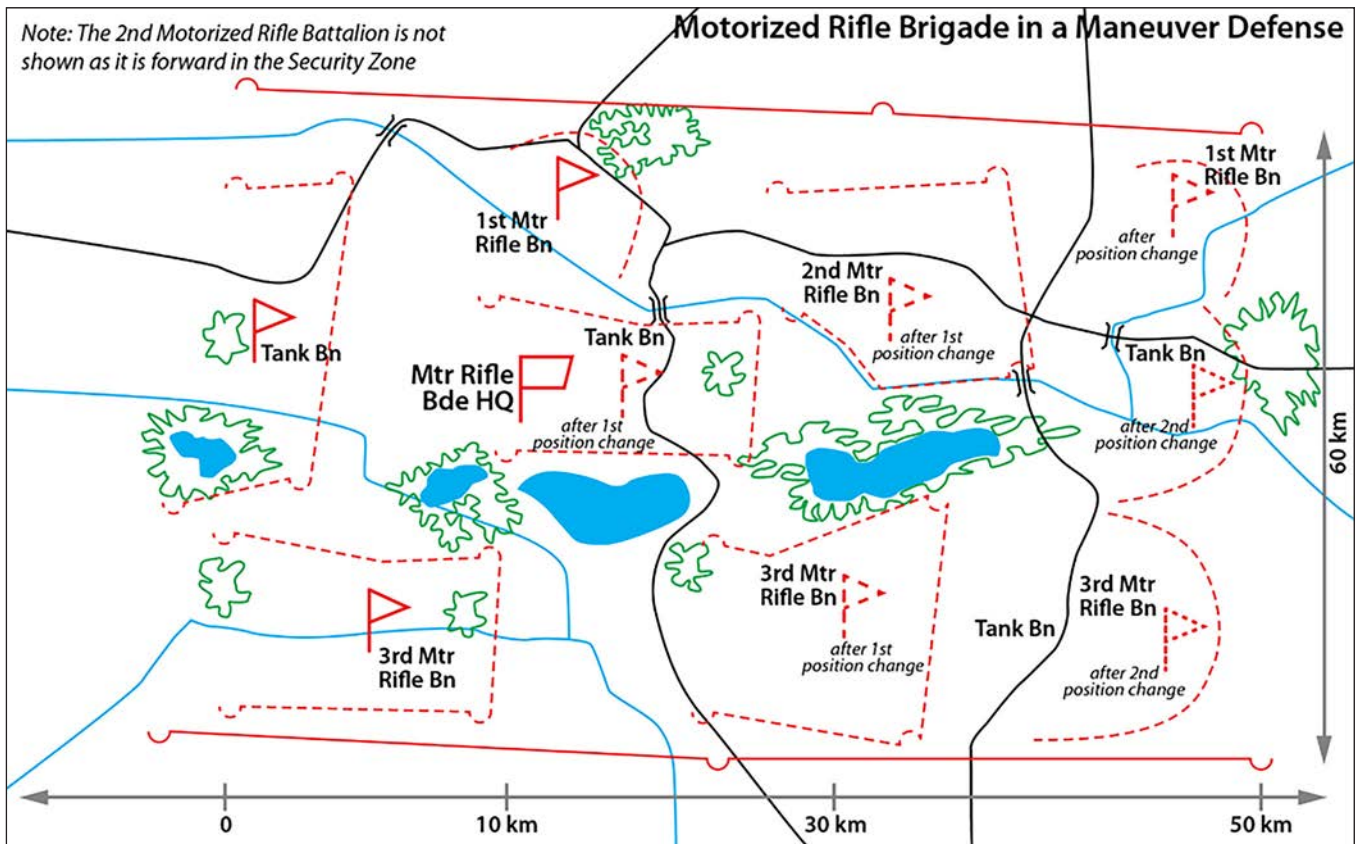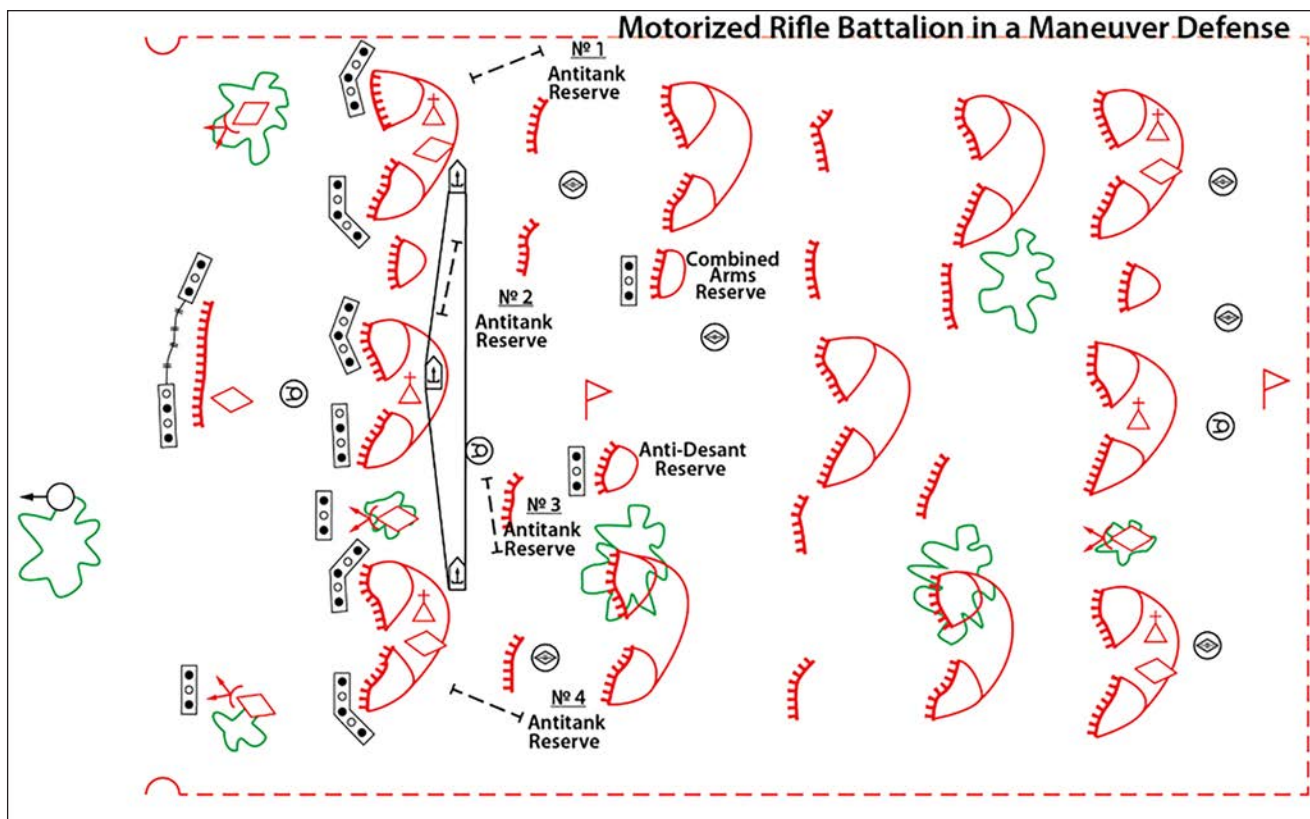

Diagrams by Charles K. Bartles

Figure 2 — Motorized Rifle Battalion in a Maneuver Defense[28]

The tank and 3rd Motorized Rifle Battalion cover three enemy high-speed avenues of approach. The northern approaches are considered the most dangerous. The enemy initially engages 2nd Motorized Rifle Battalion, which forces the enemy to deploy and slows his advance while Russian artillery or aviation fire damages the enemy advance. The 2nd Motorized Rifle Battalion does not become decisively engaged. Rather, it withdraws to the north and through the tank battalion, moves past 1st Motorized Rifle Battalion and occupies a defensive position in the north.[29]

The enemy then engages the tank battalion and 3rd Motorized Rifle Battalion, which again forces the enemy to deploy while Russian aviation or artillery fire again damages the enemy advance. Neither battalion becomes decisively engaged but withdraws. The tank battalion withdraws under the covering fire of 1st Motorized Rifle Battalion, moves through 2nd Motorized Rifle Battalion and assumes a central defensive position to the east. The 3rd Motorized Rifle Battalion moves directly back and goes on-line with 2nd Motorized Rifle Battalion to its north. The enemy continues to advance and is engaged by 1st Motorized Rifle Battalion and the tank battalion, which again forces the enemy to deploy while being engaged by Russian artillery or aviation. The 1st Motorized Rifle Battalion and tank battalion do not become decisively engaged but move to a new position north of the tank battalion.

The enemy continues to advance and is engaged by Russian artillery or aviation fires while deploying against 2nd and 3rd Motorized Rifle Battalions. The 2nd and 3rd Motorized

Rifle Battalions do not become decisively engaged. The 2nd Motorized Rifle Battalion again moves directly back and goes on-line with the tank battalion to its north. The 2nd Motorized Rifle Battalion moves through 1st Motorized Rifle Battalion and tank battalion to take up a reserve position or to deploy as a forward detachment to start the sequence again.

Figure 2 shows a Russian motorized rifle battalion in a maneuver defense within its initial battalion box. (In this case, it is the initial position of 3rd Motorized Rifle Battalion in the brigade-defense figure.) The battalion is facing an enemy attack from the west and has a reconnaissance patrol forward. The battalion has a shallow security zone consisting of a motorized rifle squad in ambush to the north, a motorized rifle platoon reinforced with a tank, obstacles and two mixed minefields in the center, and a tank in ambush protected by a mixed minefield.

The battalion mortar battery is in the security zone in support of these elements. As the security-zone elements withdraw and reposition, the enemy is met by three motorized rifle companies (of two platoons each) on-line. The companies are reinforced by a tank platoon and protected by seven mixed minefields. Man-portable air-defense systems are moved up to the rear of the company positions. The mortar battery has repositioned behind the center company. There are four firing lines for the antitank reserve protecting the flanks and junctures of the companies. The third platoons of the forward companies occupy fighting positions in an intermediate line from which they can cover the withdrawal of their companies. Three self-propelled

artillery batteries are located each in support of a forward company but able to mass fires. The battalion command post is centrally located.

The companies do not become decisively engaged but withdraw under the covering fire of their rear platoon to take up new positions. The north and south companies move directly back to new positions in an alternate line, while the combined-arms reserve and anti-landing reserve cover the center. The central company moves further back on-line with the forward-company reserves and the on-order positions of the combined-arms reserve and anti-landing reserve in an intermediate line. The battalion command post, mortar battery, and three artillery batteries move behind the final position shown on Figure 2.

The enemy advance encounters a line of six platoons that cause the enemy to deploy and slow down while being hit with artillery or aviation strikes. This line does not become decisively engaged but withdraws behind the two companies now on an alternate line with on-order positions for the combined-arms reserve and anti-landing reserve. Again, the enemy attack is slowed and punished, and then the line withdraws to its eastern position with the battalion on this alternate line. After slowing and punishing the advancing enemy, the battalion withdraws to its next battalion box, handing the battle off to a supporting battalion.

The battalion defends a 10-kilometer-by-10-kilometer box. Russians consider that normally there will be a two- to 2½-kilometer distance between intermediate and alternate lines. The rate of advance of the enemy fighting through the defensive positions is problematic; however, the Russians calculate that, should the Russian defensive positions prove stable, standard values in average conditions find that the enemy may be capable of covering the distance between defensive lines in one to 1½ hours. Depending on the location of supporting helipads, aviation support must function quickly and effectively to mitigate this advance, particularly should the enemy attempt to flank or encircle the defenders using ground and air-assault forces.[30]

Thus, in a maneuver defense, defending troops displace from line to line both deliberately and when forced. The enemy organizes pursuit with the interdiction of routes of withdrawal and attacks from the flanks and rear. These actions require separate fire support in which army aviation units are assigned to support covering-force subunits and rear guards, to engage flanking detachments and to slow the rate of pursuit. In certain sectors, maneuver will be combined with blocking and employment of flanking and raiding detachments.[31]

Conclusion

In conventional maneuver war under nuclear-threatened conditions, maneuver defense leading to a positional defense seems most likely to Russian theorists and planners. The preceding example is conducted on fairly open terrain, and the distances and dispositions will change with the terrain.

Skilled maneuver defense is designed to destroy enemy systems at long range and then withdrawing without becoming decisively engaged. Aviation and artillery are key to this long-range destruction but do not work the same target simultaneously. Artillery usually fights the enemy in front of the ground formation, while aviation fights any enemy trying to flank or encircle the defenders.

A key target for both aviation and artillery is mobile enemy air defense. The Soviets and now the Russians have long worked on developing a system that could detect, target and destroy high-priority targets in near-real time. The Russian reconnaissance fire complex now links reconnaissance assets with a command and fire direction center with dedicated artillery, missiles, and aviation for destruction of priority enemy targets in near-real time. This system is tied in with the aviation and maneuver headquarters and will be involved in the maneuver defense when appropriate.

Maneuver defense requires close coordination between fires and maneuver. Maneuver-force tactical training to support it will probably include mutual covering, withdrawal and counterattack drills. Engineers should train in rapid obstacle placement and movement support to support this defense. Artillery battalions should more often fire in support of individual maneuver battalions than as a group. Artillery batteries should often be attached to maneuver companies.

Widespread camouflage discipline and use of corner reflectors are probable. Push-supply-forward should be expected, and evacuation collection point establishment should be part of maintenance and medical training. Battle-damaged systems need to be immediately repaired or evacuated in situations where terrain is being traded for time and advantage.

Maneuver defense is appropriate to combat conducted in Russia or on its southern and western boundaries. It is again part of Russian military theory and practice.

Editor's Note: *This article first appeared in the Spring 2021 issue of* Armor.

Notes

[1] P.A. Zhilin, Отечественная Война 1812 года [The Fatherland War of 1812], Moscow: Nauka, 1988.

[2] Ibid. Austria 1805 and Prussia 1806.

[3] Lester W. Grau and Michael Gress, *The Red Army Do-It-Yourself Nazi-Bashing Guerrilla Warfare Manual (The Partisan's Companion)* (Havertown, PA: Casemate, 2010). Translation and commentary of the 1943 Soviet edition, Спутник Партизана, used to train partisans to fight the Nazis.

[4] David M. Glantz and Jonathan House, *When Titans Clashed: How the Red Army Stopped Hitler* (Lawrence, KS: University Press of Kansas, 1995). This book remains the premier short history of the Soviet Union's defense and series of operational counterstrokes that defeated Germany in World War II.

[5] Ministry of Defense of the Russian Federation, Манёвренная оборона, Военный энциклопедический словар в двух томак [Military Encyclopedic Dictionary in Two Volumes], Volume II, Moscow: Ripol Klassik, 2001.

[6] Field Manual 3-90, *Tactics*, July 2001, Chapter 10.

[7] Ibid. "Units smaller than a corps do not normally conduct a mobile defense because of their inability to fight multiple engagements throughout the width, depth, and height of the [area of operations] while simultane-

ously resourcing striking, fixing, and reserve forces." This is not to say that Russian army groups would not conduct maneuver defense, nor that their concepts will differ radically from those of a U.S. corps. Rather, the training and planning for such is at lower level in the Russian force.

[8] Ministry of Defense of the Russian Federation, Боевой Устав Сукопитных Вонск, Частъ 2 (Баталъон Рота) [Ground Troops Field Manual, Part 2 (battalion, company)], Moscow: Voyenizdat, 2013. This is a major change since Stalin's infamous Order 227 issued July 28, 1942: "Не шагу назад" ["not one step backward"] — which condemned thousands of Soviet soldiers to die needlessly in positional defense. In 2009, V.I. Popov in his book Боевой Устав Сукопитных Вонск, Частъ 2 (Баталъон Рота) stated that positional defense was the primary defense used, but the 2011 field regulations reversed this. Since then, it is consistent that maneuver defense is the major type used; the 2013 and 2014 field regulations both state that maneuver defense is the basic form of defense.

[9] The armies of medieval Russia were primarily cavalry forces maintained by boyars (nobility) augmented by peasants, who fought on foot.

[10] Editor's note: The Russian civil war (7 November 1917 to 16 June 1923) occurred in the former Russian Empire (the last tsar, Tsar Nicholas II, abdicated 15 March 1917) immediately after the two Russian revolutions of 1917. The two largest combatant groups were the Red Army, fighting for the Bolshevik form of socialism led by Vladimir Lenin, and the loosely allied forces known as the White Army, which included diverse interests favoring political monarchism, capitalism and social democracy. Also, rival militant socialists, as well as non-ideological Green armies, fought against both the Reds and the Whites. Thirteen foreign nations intervened against the Red Army, notably the former Allied military forces from World War II with the goal of re-establishing the Eastern Front. Three foreign nations of the Central Powers also intervened, rivaling the Allied intervention with the main goal of retaining the territory they had received in the Treaty of Brest-Litovsk.

[11] A. Shelomskiy and D. Maksimov, Маневренная оборона: История и современность [Maneuver Defense: History and Contemporaneity], Армейскнй сборник [Army Digest], May 2020.

[12] Glantz and House.

[13] Ibid.

[14] Ibid.

[15] Ibid.

[16] Lester W. Grau, "Reorganizing for Battalion-level Combat," *Military Review*, December 1989, https://apps.dtic.mil/sti/pdfs/ADA216368.pdf.

[17] A. Shelomskiy and D. Maksimov.

[18] Ibid.

[19] Lester W. Grau and Charles K. Bartles, *The Russian Way of War: Force Structure, Tactics and Modernization of the Russian Ground Forces*, Foreign Military Studies Office, 2016.

[20] Ibid.

[21] D. Kalachev, "Оборона-тоже маневр: Мотострелковый батальон и маневренная оборона" ["Defense is Also Maneuver – the Motorized Rifle Battalion and Maneuver Defense"], Армейскнй сборник [Army Digest], October 2016.

[22] Lester W. Grau, "Restructuring the Tactical Russian Army for Unconventional War," *Red Diamond*, February 2014.

[23] Ministry of Defense of the Russian Federation, "Очаговая Оборона" ["Fragmented Defense"], Military Encyclopedia [Военная Энциклопедия],

Vol. 6, Moscow: Voyenizdat, 2002.

[24] Grau and Gress.

[25] A. Artemyev, "Подержка с воздуха: Армейская авиация в маневренной обороне сухопутных войск" ["Air Support: Army Aviation in Ground-Troops Mobile Defense"], Армейский сборник [Army Digest], August 2017.

[26] Ibid.

[27] Ibid.

[28] The figures and their supporting text were originally published in Lester W. Grau and Charles K. Bartles, "Russian Aviation in Support of the Maneuver Defense," *Aviation Digest*, October-December 2018, https://www.rucker.army.mil/aviationdigest/assets/archive/AVN_DIG_2018_10-12.pdf.

[29] Artemyev.

[30] Ibid.

[31] Ibid.

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