Infantry

Summer 2026

Jungle Operations

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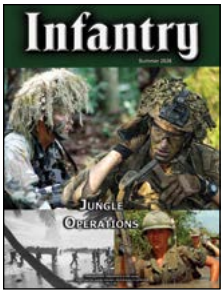

FRONT COVER:
The cover features photos from jungle training and operations over the past 80 years. (Photos courtesy of National Archives and SGT Duke Edwards)

BACK COVER:
A drill sergeant with Delta Company, 3rd Battalion, 54th Infantry Regiment, 197th Infantry Brigade, salutes during a One Station Unit Training graduation ceremony on 9 October 2025, at Inouye Field in Columbus, GA. (Photo by Joey Rhodes II)

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 PHILLIP J. KINIERY

Our mission has always been clear: to fight and win our nation's wars, wherever they may take us. Training for jungle operations remains a critical cornerstone of U.S. Army strategic readiness, particularly as global defense priorities increasingly focus on the complex environments of the U.S. Army Pacific Command and U.S. Army Western Hemisphere Command theaters. Characterized by dense vegetation, extreme heat and humidity, rugged terrain, and severely degraded communication networks, the jungle demands unparalleled physical endurance, decentralized leadership, and tactical adaptability. Mastering these austere conditions guarantees our ability to project power, sustain combat lethality, and outmaneuver adversaries in one of the world's most unforgiving physical domains.

History provides a stark reminder of why this expertise matters. From the brutal fighting in Guadalcanal and New Guinea, where disease and non-battle injuries often outpaced combat casualties, to the dense canopies of Vietnam, the jungle has always been as much of a foe as any human adversary. It is not a theoretical problem set but real and multifaceted, challenging every assumption we make about warfare. The jungle is unforgiving, and it favors disciplined, adaptive, and well-trained Soldiers.

Central to our efforts to forge elite jungle operators is the Jungle Operations Training Course (JOTC). Following more than a decade-long hiatus, the 25th Infantry Division in Hawaii resurrected the course in 2014, and it recently earned accreditation, signifying the course meets rigorous Army standards while delivering the tactically proficient, technically sound, and strategically relevant training required for the current operational environment.

Our first two articles in this issue highlight this 12-day course and how it is effectively equipping Soldiers with the tools they need to dominate the jungle fight. Written by leaders within the 25th Infantry Division and Army Security Cooperation Group-South, "Revitalizing the Army's Jungle Edge" and "Not for the Timid or Entitled" discuss the importance of the Hawaii course's accreditation and showcases JOTC's rigorous curriculum that was shaped by decades of hard-won lessons learned. The firsthand accounts from instructors and graduates alike emphasize a simple truth: Conquering this difficult environment directly cultivates the resourcefulness, resilience, and lethality required to win on tomorrow's multidomain battlefields.

Beyond individual training, articles in this issue also examine wider operational challenges within the Indo-Pacific and other jungle environments. Other articles for your consideration explore topics ranging from the value of infantry battalions to persist, see, strike, maneuver, protect, and sustain in the Indo-Pacific; advocacy for enhanced joint amphibious warfare training; and the importance of dismounted Soldiers in intelligence preparation of the operational environment.

To effectively maneuver and strike in unforgiving domains like the jungle, commanders require unparalleled situational awareness, a necessity that brings me to the next article I'd like to highlight about recent changes to the Reconnaissance and Surveillance Leaders Course (RSLC). In this article, CPT Patrick Fullam details how RSLC, originally tasked with training and certifying long-range surveillance units, is evolving its program of instruction to focus on the needs of multi-functional reconnaissance companies (MFRCs), transforming tactical instruction with modernized capabilities. By aligning institutional training with MFRC force design and functions, we are building leaders ready and able to fight these new organizations, effectively employing emerging electronic warfare and unmanned aerial system assets. In addition, RSLC cadre are capturing insights gained from classes and discussions with the force and turning them into suggested tactics, techniques, and procedures (TTPs). As time progresses, these TTPs are further refined and developed into recommended doctrine.

The Army's continuous transformation relies heavily on the lived experiences, innovative solutions, and hard-won lessons of units operating at the tactical and operational edge. I urge all Infantry Soldiers to consider contributing to our branch professional bulletin, sharing lessons learned and ideas for the way forward.

Lastly, this summer edition is especially meaningful to me, as it marks my final as Commandant of the U.S. Army Infantry School. Serving this branch and the Soldiers who carry its legacy forward has been one of the greatest honors of my career. I remain deeply proud of this profession, of the leaders who continue to strengthen it, and of the Infantrymen who stand ready to answer the nation's call.

I am the Infantry! Follow me!

Infantry Week 2026

Best Jumpmaster Competition

8-10 April

1st Place – Airborne Ranger Training Brigade
SFC Tedder Bridges, SSG Nathan Byrd, SSG Riley Fischl, and SSG Zachary Wiertalla
2nd Place – Warrior Training Center
3rd Place – 11th Airborne Division
4th Place – 82nd Airborne Division
5th Place – 82nd Airborne Division

(Clockwise from top) Members of Team 1 from the Airborne and Ranger Training Brigade prepare to jump from a UH-60. (Photo by CPT Stephanie Snyder)

The Best Jumpmaster team from the Airborne and Ranger Training Brigade prepare a door bundle. (Photo by CPT Stephanie Snyder)

A jumpmaster team completes one of the round robin tasks during the 2026 Best Jumpmaster Competition at Fort Benning, GA, on 7 April. (Photo by Daniel Marble)

SFC Justin Hays, center, from the 11th Airborne Division, conducts a jumpmaster personnel inspection on a rigged paratrooper while an Airborne Instructor grades his performance during the 2026 Best Jumpmaster Competition on 9 April. (Photo by CPT Stephanie Snyder)

Lacerda Cup
Army Combatives Championship
7-10 April

The **101st Airborne Division** was named overall champion of the 2026 Lacerda Cup.

Team members: 1LT Raine Allen, SPC Hector Alatorre, SPC Theodore Bostert, PFC Kayden Cody, PFC Jefferson Da Silva Rodrigues, 1LT Tyrell Hill, SGT Montgomery Hix, and SPC Triston Williams

(Clockwise from above) Soldiers grapple during the preliminary round of the 2026 Lacerda Cup on 7 April. (Photo by Joey Rhodes II)

SSG Patrick Terry from the 4th Infantry Division overpowers his opponent during the flyweight individual championship bout on 10 April. (Photo by Daniel Marble)

SGT Antonio Khanthasa, representing the 173rd Airborne Division, and PFC Jordan Brown, representing the 2nd Infantry Division, compete in the final bouts of the 2026 Lacerda Cup Competition on 10 April at Smith Gym. (Photo by Daniel Marble)

See more photos from all five of the Infantry Week competitions at https://fortbenning.smugmug.com/Ceremonies-and-Events/Postwide-Competitions/InfantryWeek.

International Sniper Competition

7-10 April

1st Place – U.S. Marine Corps
SSgt Tyler Johnson and Sgt Spencer Harrell
2nd Place – 75th Ranger Regiment
3rd Place – 25th Infantry Division
4th Place – 173rd Airborne Brigade
5th Place – 11th Airborne Division

(Counterclockwise from above) A sniper team completes an event at Galloway Range on the third day of the International Sniper Competition at Fort Benning, GA. (Photos by Joey Rhodes II)

A competitor fires his weapon during the Sniper Showdown, the final event of the competition.

A Soldier on Team 5 from the 10th Mountain Division fires at a target on 9 April.

A member of Texas National Guard sniper team spots targets during a graded event.

Best Mortar Competition
7-10 April

1st Place – 2nd Cavalry Regiment
SSG Freddy Munoz, SGT Kory Millsap, SPC David Geyer, and PFC Charlie Ketcherside
2nd Place – 75th Ranger Regiment
3rd Place – 25th Infantry Division
4th Place – 173rd Airborne Brigade
5th Place – 11th Airborne Division

(Clockwise from top right) Team 12 from the 173rd Airborne Brigade completes a portion of the Best Mortar Competition's Stress Shoot event on 8 April. (Photo by Daniel Marble)

A Best Mortar competitor takes part in the Gunner's Exam event on 8 April. (Photo by Daniel Marble)

Members of Team 3 from the 4th Infantry Division complete the 60mm live-fire event at Red Cloud Range on 10 April. (Photo by 1LT Drew Adams)

Soldiers from the 2nd Cavalry Regiment complete the Armored Multi-Purpose Vehicle event on 8 April. (Photo by Daniel Marble)

Best Ranger Competition

10-12 April

1st Place – SGT Drew Schorsch and SPC Caleb Godbold, 75th Ranger Regiment

2nd Place – CPT Joe Tritle and SPC Diego Martinez, 75th Ranger Regiment

3rd Place – SGT Isaac Smith and CPT Lane Peters, 75th Ranger Regiment

4th Place – CPT Jacob Rob and CPT Peter Howell, The Old Guard

5th Place – SGT Malik Reimonenq and 1LT William Naumann, 11th Airborne Division

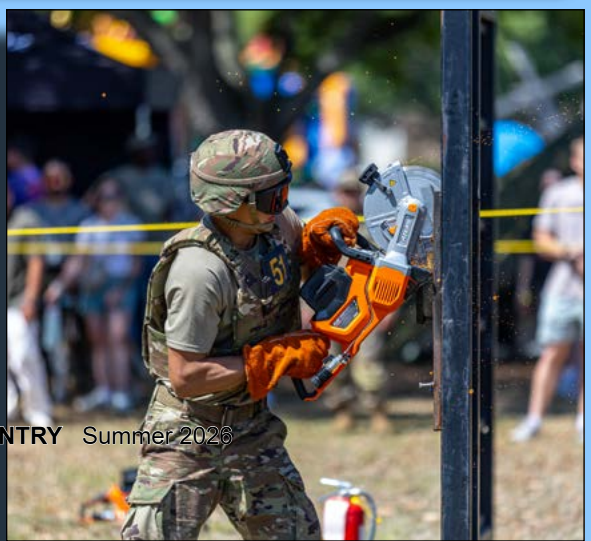
6th Place – SSG John Gladwell and CPT Jackson Gordon, Airborne and Ranger Training Brigade

7th Place – MAJ Nathaniel Bishop and CPT Joseph Hoffman, U.S. Army Special Operations Command

8th Place – 1LT Seth Johnson and CPT Kirk Wrobley, Maneuver Center of Excellence

9th Place – SGT Cody Krawczyk and CW2 Colin Feild, 101st Airborne Division

10th Place – 1LT Mark Nylund and 1LT Christohper Braman, V Corps



(Counterclockwise from above) SGT Drew Schorsch from the 75th Ranger Regiment completes the Combat Water Survival Assessment on the final day of the 2026 Best Ranger Competition. (Photo by CPT Stephanie Snyder)

SGT Drew Schorsch and SPC Caleb Godbold cross the finish line of the 2026 Best Ranger Competition on 12 April. (Photo by Patrick A. Albright)

SGT Malik Reimonenq and 1LT William Naumann from the 11th Airborne Division moves a casualty during a Day Stakes event on the second day of the competition. (Photo by Daniel Marble)

A Best Ranger competitor uses a saw to breach a door during a Day Stakes event on 11 April. (Photo by Daniel Marble)

A Best Ranger competitor maneuvers down a wall while completing the Urban Assault Course on 11 April. (Photo by Joey Rhodes II)

Revitalizing the Army's Jungle Edge:

Hawaii's JOTC Sets the Standard for Modern Jungle Warfare

1LT MICHAEL A. BONIFAZIO
LTC CHARLES A. STAAB

As a fighting force whose mission is to fight and win our nation's war on any scale and in any part of the globe, the U.S. Army has always been committed to sharpening its ability to move, fight, and win in any environment on Earth — the jungle is no exception. For land forces, operating in the jungle requires bespoke knowledge, equipment, and mindset as the terrain presents "as much of a psychological challenge as a physical one."[1] From Pacific Theater campaigns during World War II to specialized training in Panama, the U.S. Army has maintained a distinctive edge in jungle warfare operations for decades. Today, that legacy continues to grow on the Hawaiian island of Oahu with the newly accredited Jungle Operations Training Course (JOTC). Operating out of Lightning Academy — the 25th Infantry Division's premier Pacific training venue for regional and global partners — JOTC stands as the first U.S. Army course of its kind to earn accreditation from the U.S. Army Infantry School (USAIS). This milestone formally recognizes JOTC as a military course that meets the standards of Army instruction while delivering tactical and technical instruction that is strategically relevant for today's operational environment.

(Photo courtesy of 25th Infantry Division Public Affairs Office)

Reflecting years of dedicated effort, curriculum development, and jungle instructor (JI) expertise, this accreditation underscores the importance of jungle training in preparing Soldiers for the next generation of multidomain operations in complex environments. As our nation's security focus shifts to an increasingly unpredictable world, JOTC is now also postured to pave the way for the next generation of jungle operations beyond Hawaii. It now serves as the executive agent in training and advising Soldiers of the newly formed Army Security Cooperation Group-South (ASCG-S) as they prepare to apply JOTC's program of instruction (POI) to jungle training initiatives in Panama, demonstrating the course's growing influence in the Western Hemisphere. This strategic partnership advances our national security realignment to a vital region at a decisive time, reinforcing assurance to partners and deterrence to adversaries.[2]

Historical Jungle Training in the U.S. Army

The U.S. Army's focus on jungle training has deep roots, particularly under the canopies of Hawaii. Offering a uniquely valuable training environment, the state's landscape has been utilized by American military forces to prepare for operations in Southeast Asia and the islands of the Pacific throughout 25th ID's history. Jungle training in Hawaii began as early as 1942 when American Soldiers prepared to launch campaigns around the Pacific Theater. One of the war's earliest engagements in the Indo-Pacific was marked by jungle-trained Soldiers and troops deploying to the Guadalcanal in the Solomon Islands to face Japanese forces.[3] This conflict demanded that U.S. Soldiers were able to fight in and move through an environment defined by dense vegetation, extreme heat and humidity, and dangerous fauna and flora — the jungle itself was as formidable as it was unfamiliar. To continue this necessary preparation of American Soldiers for jungle operations, the Army established a larger, more structured training facility called the Pacific Combat Training Center. This facility aimed to sharpen the skills of Soldiers who were flowing through Hawaii before deploying to the Pacific Theater. By the end of WWII, more than 300,000 Soldiers had been trained at the center.[4]

The physical resilience and adaptive thinking fostered through jungle training was furthered as the Korean War once again called on American Soldiers to step forward as jungle experts. Soldiers trained at the "Jungle and Guerilla Warfare Training Center" during the 1950s and into the 1960s as the 25th ID prepared to deploy to Vietnam in 1965.[5] After the Vietnam War, jungle training was executed through the preceding "Recondo School," a facility featuring a five-week training program that focused on mountaineering, pathfinding techniques, and patrolling. Jungle training then shifted to Fort Sherman, Panama, where U.S. forces trained in more dense jungles and on a larger scale at the Jungle Operations Training Center. As the turn of the 21st century saw the Army's strategic focus shift to the impending global war on terrorism, this program was shut down in 1999, leaving the Army without a formal jungle training program.[6] When time ultimately revealed a critical gap in readiness, the 25th ID worked to reestablish a jungle school in Hawaii in 2014, resuming its operational capability and laying the foundation for the current JOTC. With the accreditation of JOTC in December 2025, service members from across the joint force and foreign partners are now able to come to Oahu to learn critical jungle skills shaped by decades of lessons learned, embrace this history, and carry forward the lineage of the American jungle fighter.

JOTC in Hawaii: From Rebirth to Accreditation

Following the Army's shift to the Indo-Pacific region after 10 years of fighting in Afghanistan and Iraq, the Lightning Academy revived JOTC to reestablish the 25th ID's role as the Army's leading generator of jungle operators.[7] Taking advantage of Hawaii's unique terrain, tropical climate, and historic legacy, this school sought to restore institutional expertise that had been dormant for more than a decade. Over the course of the 2010s, the division continually improved and refined JOTC, implementing best practices, doctrine, and lessons learned from both foreign allies and historical operations. With limited training areas and resources, compared to larger, more established Army bases located on the U.S. mainland, JOTC leaders prioritized efficiency and high-quality training until it became clear that the tools with which the course equipped Soldiers would evolve the Army's warfighting readiness and capabilities. Rather than waiting for the next conflict to require American troops to undergo jungle training, JOTC was designed to proactively equip Soldiers with these tools and do so within 12 days. These deliberate days of continuous training involve a relatively small cost to leaders' time and manpower while producing value that only compounds when jungle fighters return to their formations ready and able to share and apply their newfound jungle

A 25th Infantry Division Soldier participates in a hands-on exam for ruck rafting during the Jungle Operations Training Course, which was conducted as part of Exercise Balikatan 2026 at Fort Magsaysay, Philippines, on 30 April 2026. (Photo by SGT Rayonne Bissant)

A 25th Infantry Division Soldier conducts the swimming assessment portion of Jungle Operations Training Course at Schofield Barracks, HI, on 29 July 2024. (Photo by SSG Katelyn Vazquez)

expertise. JOTC's development was a long-term investment, and it is already beginning to pay off.

The JOTC that is executed today features an intensive 12-day POI conducted at both Lightning Academy and various locations around East Range, one of Schofield Barracks' primary training areas. Focusing on both individual skills and squad-level tactics, the course teaches and evaluates students' performance in fieldcraft, medical considerations in the jungle, construction of rope mobility systems, tracking and counter-tracking, survival training, land navigation, waterborne operations, and small unit tactics. These topics are presented to the students following a "crawl, walk, run" training progression methodology.

Phase I or "Crawl/Walk Phase" introduces students to the training area, assesses their physical fitness, and tests their ability to conduct critical skills to standard. Because JOTC offers a unique training experience in the jungles of Oahu, students must be able to adapt to the humid climate, difficult terrain, and dense vegetation. The course tests whether students can adapt from the moment they arrive at the course. A deliberate packing list layout ensures that students have procured the items that JOTC says are necessary to be successful in the jungle, especially items that service members might have never considered or used before operating in this environment. For example, machetes, survival kits, and hammocks might determine whether or not students can successfully maneuver through a templated route, obtain shelter and sustenance in a foreign area, or ensure harmful flora and fauna do not make rest cycles difficult and dangerous. Physical events like the Combat Water Survival Assessment (CWSA) and Jungle 5-Kilometer Run ensure students are physically fit enough to safely and successfully complete the course and operate in the jungle. Testing on knots and rope mobility systems also marks Phase I, as students must demonstrate their ability to navigate a terrain feature using a one-rope bridge as well as construct a 3:1 line haul system capable of extracting a casualty or load.

Phase II or "Walk/Run Phase" builds on the foundational skills assessed during Phase I. While jungle students are first assessed individually, Phase II is designed to make clear that teamwork and shared understanding are pivotal for the success of a squad operating in the jungle. Here, students will be assigned formal squads with deliberate leadership as they refine their collective ability to move, fight, and survive in a jungle environment, delving into rappelling, waterborne operations, survival, tracking, and tactics. Phase II concludes with a squad-level culminating field exercise (CULEX) conducted over three days that challenges jungle students to navigate operational scenarios and environmental obstacles alike. The CULEX also provides students with an opportunity to lead under physical and mental duress, as they are assigned formal roles within their squads and provided direct feedback following each iteration. Whether they are traversing a waterway or extracting a casualty from the bottom of a gulch, students are constantly tested by JIs and the environment to shape them into true jungle operators.

As guidance from the Pentagon called for a revival of jungle training among the force in 2025, the U.S. Army needed to identify a domestic, established institution as the executive agent of official U.S. jungle operations training.[8] This organization would be charged with maintaining a formal jungle operations schoolhouse that is nested with the POI and instructor standards of USAIS. Key among the qualities of an executive agent, this schoolhouse would need to be capable of training service members from across the joint force as well as supporting delivery of this accredited training in national and international domains.

Recognizing its proven POI and professional instruction, USAIS selected the 25th ID's Jungle Operations Training Course as this executive agent. This accreditation initiative triggered a formal review of JOTC's POI and instructors to ensure that it met the expected training standards and aligned JOTC with all courses nested with USAIS, to include Air Assault, Airborne, and Ranger courses. This review resulted in the official accreditation of JOTC as of December 2025, producing an additional opportunity for service members to learn unique skills while supplementing the U.S. Army's ability to increase the readiness of its warfighters to operate in any environment. The importance and impact of this accreditation effort was immediately evident, as JOTC wasted no time in

partnering with ASCG-S in executing the Pentagon's initiative to restore jungle training in Panama.[9]

Training the ASCG-S and Strategic Partnership

As the U.S. military refocuses on strengthening its presence and capabilities in the Western Hemisphere, restoring jungle training in Panama was among the top lines of effort.[10] Not only was it critical to revive this institution quickly, but to also ensure the institution could deliver the level of training quality and instructor professionalism established by JOTC Hawaii. Sharing a common mission, the cadre of Lightning Academy and ASCG-S — recently reflagged from 1st Security Force Assistance Brigade — quickly aligned in a mutually beneficial partnership. The closing weeks of 2025 saw ASCG-S establish a foothold at the Lightning Academy on Oahu, as their leaders and cadre underwent a deliberate training cycle conducted by 25th ID JIs. The first step of this training cycle saw the JIs prepare ASCG-S personnel for JOTC, ensuring they understood the course overview, critical events, and considerations as both a student and an instructor. ASCG-S personnel then enrolled in a full JOTC course, undergoing jungle training and developing an understanding of what every JOTC student experiences. When the ASCG-S cadre graduated JOTC, Hawaii JIs would then teach them JOTC POI and instructor conduct before evaluating their ability to present course material and uphold the JOTC standard. By the time these training cycles concluded, JOTC had trained and certified 56 ASCG-S instructors, overseen two operational tryouts in Panama, and informed ASCG-S's own instructor certification program within the span of three months. By March 2026, ASCG-S executed its first, fully self-efficient Panamanian Jungle Course.[11]

The speed and effectiveness of this initiative stemmed directly from JOTC's professionalism combined with ASCG's dedication. ASCG-S spokesperson, MAJ Val Bryant, highlighted the utility of these organizations' relationship, stating that Hawaii JIs "have been crucial, mentoring us during the [Panamanian] school's build, and we look forward to sustaining that partnership."[12] This collaboration continues to grow as JOTC and ASCG-S cadre prepare to meet in the Philippines in support of the Fiscal Year 2026 JOTC Mobile Training Team (MTT). This initiative enables the ASCG-S cadre to continue to expand their knowledge and experience in jungle warfare as they support JOTC in executing jungle training in a massive collaboration between U.S. forces and the Filipino Special Forces and First Scout Ranger Regiment. Launching ASCG-S instructor training while serving as a model for international partners, JOTC had already begun reinforcing U.S. Army readiness and strengthening global partnerships just weeks following its accreditation.

Voices of Impact

As JOTC has undergone multiple revisions and revivals through the better part of the last century, its enduring adaptability and impact can be attributed to key figures ranging from JIs to 25th ID leaders. Their combined expertise and dedication to curriculum development, training execution, and course evaluation — fueled by instructor and student feedback — has not only revitalized jungle training but has established a scalable and proven model for future domestic and international training initiatives.

Among these key leaders, there is perhaps no one who has been more crucial or influential in the development of JOTC than Daniel Moss, the Lightning Academy's current operations specialist. Before retiring from active duty as an Infantry sergeant major, Moss accrued almost 25 years of combat and military experience in light, airborne, and reconnaissance organizations. He served several years as a Ranger instructor and company first sergeant at 4th Ranger Training Battalion, and three years as the Lightning Academy first sergeant, all positions he feels were instrumental to his success in his current role. After spearheading this historic accreditation, Moss stated the following:

> *"It has been an incredible experience being a part of the Jungle Operations Training Course. When I say we have been working with the 'complete package,' I mean everyone involved over the last 10 years. The 25th ID has been fortunate to have had the caliber of Generals like [Ronald] Clark, [James] Jarrard, [Jeffrey] VanAntwerp, [Joseph] Ryan, [Marcus] Evans, and [James] Bartholomees, who understand the importance of jungle training, make it a priority, and have now expanded it beyond this division. The Infantry Commandant and the entire team at USAIS were crucial in making this training replicable, guiding us through the process of what right looks like. I would also like to personally thank Mr. [Gary] Fox and Mrs. [Melody] Venable for your mentorship to the team. Our current division leadership, Major General Bartholomees and division Command Sergeant Major [Shaun] Curry, supported the creation of an ASI-producing course, had faith in the team, and greenlit us to take JOTC to the next level. I cannot say enough about the ASCG-P, who were given the nearly impossible mission of starting with zero trained instructors and unfamiliar POI, yet still standing Fort Sherman back up in 180 days. Not only did they accomplish that, but they also agreed to send 15 instructors to the Philippines to run a joint course with us — who does that? Ultimately, though, it was and always has been Lightning Academy's jungle instructors who made it happen every single day. While everyone I have mentioned supported and approved it, the JIs did the work on the ground and continue to do so. I am amazed at how far this has all come and the incredible work done by these NCOs and officers, both here on Oahu and in Panama."*

As previously noted, the successful accreditation of JOTC would not have been possible without constant attention to detail, hours of course revision and management, and care of all JOTC students, all of which are the JIs' and senior instructors' primary responsibilities. Charged with overseeing and mentoring fellow JIs while ensuring students receive accurate and high-quality instruction, the instructors have continually been the leading force in showing the 25th ID and entire U.S. Army why JOTC's accreditation was a worthy and necessary

effort. One of JOTC's senior instructors, SFC Travis Squiers, commended his team's dedication to the course: "JOTC and Lightning Academy leadership and instructors worked tirelessly to refine the POI, processes, and certification standards, ultimately earning formal recognition from USAIS. I'm honored to have been part of this effort and proud of our team's accomplishments."

Looking Ahead

The accreditation of JOTC in Hawaii and the establishment of its Panamanian counterpart marks a renewed commitment to the Army's jungle warfare capability. Founded on a proud history of jungle operations and partnerships with allies abroad, JOTC fuels the Army's ever-growing emphasis on multidomain operations. An army's ability to fight, move, communicate, and survive in austere environments offers a decisive advantage, one that JOTC is designed to foster. By linking this training in Hawaii to strategic partnerships overseas, JOTC retains a critical operational edge.

Standing as a testament to innovation and adaptability, the burden that falls on JOTC is not a light one — though accreditation by USAIS imbues the institution with a heightened level of legitimacy and structure, it also requires a heightened level of commitment, professionalism, and responsibility. As the future of combat operations demands the U.S. Army fight and win in any environment, JOTC's mission is now clear: wherever Soldiers are called, jungle experts will answer.

Notes

[1] J.P. Cross, *Jungle Warfare* (South Yorkshire, UK: Pen & Sword, 2008), 11.

[2] President Donald J. Trump, "National Security Strategy of the United States of America," November 2025, https://www.whitehouse.gov/wp-content/uploads/2025/12/2025-National-Security-Strategy.pdf.

[3] MG Joseph A. Ryan, "An Introduction," *Infantry*, Fall 2023, 2, https://www.benning.army.mil/infantry/magazine/issues/2023/Fall/PDF/Fall23_InfMag.pdf.

[4] Headquarters Pacific Combat Training Center, "Unit History," September 1945, 2-4, 9.

[5] Adam Elia, "Jungle Warfare Training on Oahu: A Recurring Trend" (Command History Office, 25th Infantry Division).

[6] Nicholas Slayton, "For The First Time in Decades, Marines and Soldiers Are Back in Panama to Train," *Task & Purpose*, 11 November 2025, https://taskandpurpose.com/news/us-troops-panama-training-jungle/.

[7] MG Ryan, "An Introduction," 2.

[8] U.S. Mission Panama, "Defense Secretary Pete Hegseth Conducts Joint Press Engagement With Panamanian Public Security Minister Frank Abrego in Panama City," U.S. Embassy in Panama, 10 April 2025, https://pa.usembassy.gov/defense-secretary-pete-hegseth-conducts-joint-press-engagement-with-panamanian-public-security-minister-frank-abrego-in-panama-city/.

[9] Ibid.

[10] AUSA. "Army Reestablishes Jungle Training in Panama," 17 February 2026, https://www.ausa.org/news/army-reestablishes-jungle-training-panama.

[11] Richard Morgan, "US and Panamanian Forces Kick Off Jungle Operations Training Course," U.S. Southern Command, 6 February 2026, https://www.southcom.mil/MEDIA/NEWS-ARTICLES/Article/4402606/us-and-panamanian-forces-kick-off-jungle-operations-training-course/.

[12] AUSA, "Army Reestablishes Jungle Training in Panama."

Soldiers conduct the "Green Mile" endurance event prior to graduation during jungle operations training at Camp Tecson, Philippines, on 2 June 2024. (Photo courtesy of 25th Infantry Division)

1LT Michael A. Bonifazio serves as the officer in charge (OIC) of the Jungle Operations Training Course (JOTC) where he assisted in the course's accreditation and currently oversees all JOTC operations. He received his commission as a Field Artillery officer in 2023 and began his Army career in the 25th Infantry Division at Schofield Barracks, HI. 1LT Bonifazio first served as a fire support officer attached to the 2nd Mobile Brigade and then as a platoon leader for Alpha Battery, both under 2nd Battalion, 11th Field Artillery Regiment, Division Artillery (DIVARTY). He then transitioned to the Lighting Academy, where he supported the training institution's military courses as the training and resource officer before becoming the JOTC OIC. 1LT Bonifazio is a graduate of the Air Assault Course, Ranger Course, JOTC, and Basic Military Mountaineering Course. He earned a Bachelor of Science in economics from the U.S. Military Academy (USMA).

LTC Charles A. Staab currently commands Headquarters and Headquarters Battalion, Division Artillery, 25th ID. He received his commission in 2006 as an Infantry officer and began his Army career in the 3rd Infantry Division at Fort Stewart, GA. Upon transition to Army Special Operations, he served as a detachment commander in 4th Battalion, 5th Special Forces Group (Airborne) at Fort Campbell, KY. As a field grade officer, he returned to 5SFG(A) to serve as the 4th Battalion operations officer, company commander, and group operations officer. LTC Staab then served at Special Operations Command Europe in multiple positions, including deputy chief of current operations, executive officer to the commander, and chief of the Strategy & Campaign Division. He will assume responsibilities as the assistant chief of staff, G3, 25th ID in June 2026. LTC Staab earned a Bachelor of Science in political science from USMA and a Master of Science in defense analysis from the Naval Postgraduate School.

Not for the Timid or Entitled:

How Panama's Crucible Is Yet Again Testing Soldiers' Mettle

COL KEITH W. BENEDICT
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Welcome Back to the "Green Hell"

The weight hits first. At 90 degrees in March, the air feels oppressive. Humidity and bugs pervade. Sweat glues tattered uniforms to skin, becoming a soggy, second skin. The only option: "Keep Calm and Jungle On" — adapt and complete the mission. Ranger School is truly "Not for the Weak or Fainthearted." In Panama, Jungle Operations Training Course Class 26-04 students learned the jungle is "Not for the Timid or Entitled."

The legendary jungle training has returned to former Fort Sherman, Panama — now a Panamanian aeronaval base, Cristóbal Colón — after more than two decades of hiatus. Technology has changed since the doors closed in 1999. The jungle, however, has grown back with a vengeance. It favors no one and doesn't care about the outcome of a conflict. Damage done to the flora is eventually reclaimed by nature. Those prepared for this environment can wear down an adversary. They preserve combat power, concentrate effects, and ambush a weary, dehydrated foe.

To fully understand the return to Panama, it helps to listen to the Army's history and the stories of new jungle operators. Training in these jungles once forged World War II and Vietnam Soldiers; now it is shaping a new generation. To appreciate this continuity, the following section explores the rebirth of the "Green Hell" from the perspectives of students, instructors, and veterans, directly linking past lessons to current challenges.

Historical Significance (The Legends of the Jungle)

After heavy casualties against Japanese forces in the Pacific, the Army sought specialized jungle training. In the jungle, Soldiers face threats not only from an opposing

A Soldier assigned to Army Security Cooperation Group - South conducts a reconnaissance mission during the Jungle Operations Training Course - Panama at Aeronaval Base Cristóbal Colón, Panama, on 19 February 2026. (Photo by SPC Richard Morgan)

force but also from disease, insects, wildlife, and oppressive humidity. During the Guadalcanal Campaign, Soldiers documented more than 10,000 Army cases of malaria. Five of six Army hospital patients suffered disease or non-battle injuries. Similarly, the 1st Marine Division had 650 killed and 1,200 wounded but 8,580 malaria casualties, often repeatedly.[1]

Fighting in New Guinea was even worse for the 32nd Infantry Division: The starting strength of 10,825 men consisted of three combat teams. Casualties totaled 9,688, that included 7,125 mostly from disease. In the 126th Regiment, only 32 officers and 579 enlisted men survived out of 3,040 after 40 days. Most losses stemmed from malaria, dysentery, and exhaustion.[2] This drove the Army to seek a jungle training site: Panama.

The History of Fort Sherman

Fort Sherman once stood as a symbol of American power in Latin America. It embodied America's commitment to defending the strategic canal. Development began in 1911 on Toro Point with construction starting in 1912, a strategic peninsula that connects the Atlantic Ocean to the Panama Canal. Before 1951, this base served as mainly coastal artillery defense, mere miles from the Spanish fortifications at Castillo de San Lorenzo, dating from 1598.[3] Beyond the artillery sites, Fort Sherman offered ample access to the primary jungle. This allowed for training in harsh conditions as early as 1916, just two years after the canal's completion. To prepare for the Pacific, training in Panama expanded during World War II and hosted legendary units like the 551st Parachute Infantry Battalion, which trained for a combat jump into German-controlled Martinique and later fought with distinction in Europe.

The Forging of the Jungle Expert

After World War II, the Army committed to formalizing and sustaining an institution dedicated to jungle mastery. In 1951, the Army repurposed Fort Sherman's vast, undeveloped jungles. It established the Jungle Operations Training Center (JOTC), and at its peak during the Cold War, JOTC trained about 9,000 U.S. American military personnel annually. This included Army Infantrymen, Rangers, Special Forces, Marines, and soldiers from allied nations worldwide. The center became a vital hub for international security cooperation.[4]

JOTC became known for its "appalling realism" in jungle survival, and training pushed Soldiers to their limits. Waterborne operations took place on the crocodile- and shark-filled Chagres River. Land navigation challenged unit cohesion. Soldiers ate snakes. Cadre fired automatic weapons ahead of trainees to deter large reptiles.

Before confronting an enemy, Soldiers had to overcome the jungle. Dense vegetation limited visibility and fields of fire to under 30 meters. Heavy humidity disrupted communications. Early night-vision devices failed under triple canopy. Tripping hazards and black palm made movement difficult. Dangerous wildlife and poisonous plants were everywhere.

A Soldier blows into a coconut during the fire technique portion of the Jungle Operations Training Course - Panama at Aeronaval Base Cristóbal Colón on 1 May 2026 (Photo by SPC Richard Morgan)

One key lesson was clear: Soldiers must master the jungle before focusing on the enemy.

Training for Vietnam reduced individual risk. Vietnam also revealed the importance of training entire fighting units, just as it had done with the 551st Parachute Infantry Battalion, among others, during WWII. In 1976, JOTC shifted to full battalion training, testing adaptation to jungle conditions and awarding the Jungle Expert patch to successful units. JOTC also offered a 10-day air crew survival course and a four-week engineers' course.

CSM (Retired) Wayne Wahlenmeier — a veteran of the 173rd Airborne Brigade, 101st Airborne Division, and Army Ranger Training Brigade — cited Fort Sherman's Jungle School as foundational.[5] He looked up to Soldiers with the Ranger Tab and Jungle Expert patch, and as a private first class at JOTC in 1994, the jungle was unlike anything he'd experienced stateside. Fort Sherman reminded him of his father's service in Vietnam. He went south to learn the skills and endure the hardships his father had experienced. Decades later, Wahlenmeier recalled Panama's jungle as his most formative training, boosting his confidence for Ranger School. His advice: "Respect the jungle." Overconfidence brings failure in this unforgiving setting.

The End of an Era

The decision to close Fort Sherman followed the 1977 Torrijos-Carter Treaties, which called for the United States to hand over the canal and all bases to Panama. Training continued and Operation Just Cause in 1989 strained relations, but the treaties held. In June 1999, the jungle course graduated its final class, and the Jungle Operations Training Battalion was inactivated, ending 88 years of U.S. presence at Toro Point and creating a gap in jungle expertise.[6]

In 2014, the 25th Infantry Division in Hawaii reopened the jungle course to relearn jungle mobility, tracking, waterborne operations, combat patrolling, survival, and other training. This course became a 12-day program of instruction (POI) under the Infantry School.[7] That troop school — now an official course presenting additional skill identifier (ASI) J2 — serves

as the basis for what Army Security Cooperation Group-South (ASCG-S) is rebuilding with Panamanian partners.

The Modern Jungle Fighter (Training for the Future Fight)[8]

Thanks to Panamanian hospitality, Soldiers are training once again under triple canopy, based on a memorandum of understanding signed in April 2025. LTC Andrew Eagen, commander of 3rd Squadron, ASCG-S and officer in charge of the Jungle Operations Training Center, understands U.S. Army Western Hemisphere Commanding General GEN Joseph Ryan's intent. "We are here to help the Army regain lost capability," LTC Eagen stated. "The jungle is everywhere in the SOUTHCOM [Southern Command] area. Success requires not just surviving but winning." Regaining jungle capability is critical for future operations in these areas.

Though now focused on individual training, 3rd Squadron's cadre is integrating new capabilities. The program aims to defeat a modern, technological foe. "We're not just fighting in the jungle, we're fighting a near-peer adversary in the jungle," said LTC Eagen. "How do we find them? How do we use the jungle to kill them?" Graduates can answer these questions, and soon units will shape Army lessons across warfighting functions.

The Partnership: Brothers in the Jungle

Today's jungle school stands out for its integrated partnership with Panamanian forces. The Panamanian instructors are resident experts, fully invested in teaching survival on their home ground. "For me, the jungle is my life," said Panamanian 1SG Albis Fajardo, a senior instructor with more than 20 years of experience. "I feel proud to represent my country," added Sub Lt. Frank Degaiza. "For us, it's an honor to teach the U.S. military our jungle knowledge."

This spirit of unity also reaches students. SGT2 Montezuma Armando, a Panamanian student going through the course remarked, "Here, we are all Soldiers together. We help the Americans understand how to survive and live in the jungle, and they teach us their tactics; we are brothers in the jungle."

This powerful combination of expertise is recognized by leadership as the key to the school's success. "Working with the Panamanians has been amazing," said LTC Eagen. "They are the experts in this terrain. My instructors are experts in U.S. doctrine. And when you combine the two, you get a world-class jungle school."

1SG Fajardo, who graduated from the U.S. Army's jungle school in 1998, agreed that the collaboration is a decisive force multiplier. "The most important thing for me is the partnership," he stated. "The U.S. has the technology and the resources. We have experience in this place. Together, we can do anything."

The Curriculum: Old-School Grit Meets Modern Threats: Instructors' Perspective

The course's answer to modern threats lies in a curriculum created by both American and Panamanian forces, blending timeless jungle wisdom with cutting-edge doctrine. The school is unique, with instructor cadre that mixes seasoned U.S. Army NCOs with Panamanian naval infantry experts. The core focus is mastering the basics as technology is often the first casualty in the jungle, forcing a return to fundamental Soldiering skills and even unlearning lessons forced at other training centers around the globe.

Instructors emphasize the necessary mindset shift. "Here, students need to turn off their Army brain and turn on their jungle brain…," explained SSG Daniel Gonzales, an instructor on the Tracking Team. "The world is always changing, along with tactics, and students need to be able to adapt to it." This means being open-minded and ready to learn.

SFC Christopher Alther of the Survival Team teaches students to live, hunt, and sleep in the jungle, stressing that "technology may evolve, but the jungle remains the same." He noted that basic skills like sourcing water and building rafts are critical when traditional logistics fail.

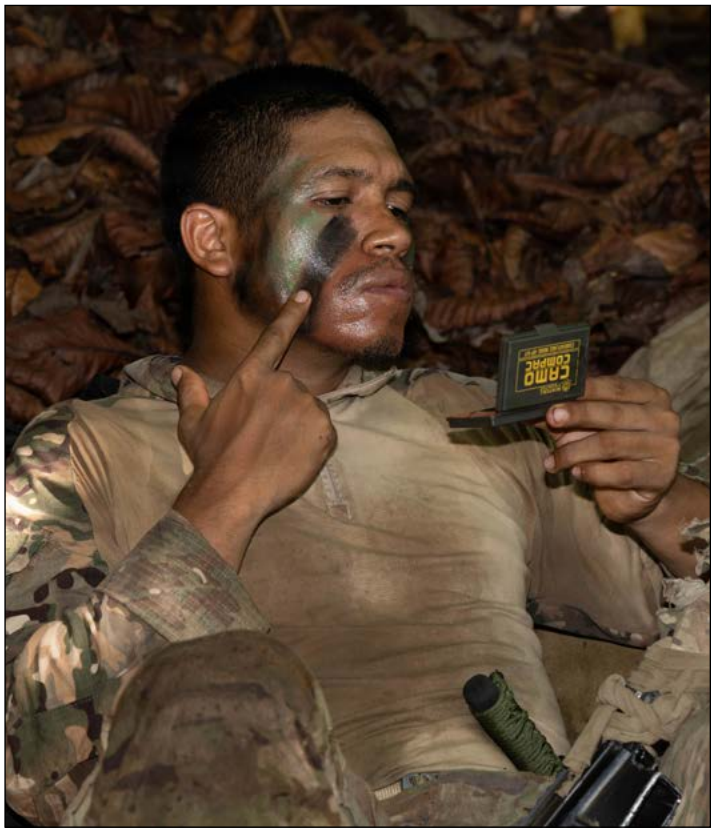
SSG Clayton Kemp, a mobility instructor, highlighted the unforgiving nature of the environment where attention to detail is paramount: "The jungle doesn't forgive. If you don't have attention to detail or make the wrong mistake, that's it."

Success, according to tracking instructor SSG Daniel Urban, is found in "the individual that is paying attention, curious, taking notes, asking questions." His biggest piece of advice for attendees: "Come motivated. We don't want the lazy or the weak. We are looking for motivated Soldiers and leaders."

The Student's Crucible: A Journey Through the Green Hell

JOTC 26-04 attendees jumped at the opportunity to go

Soldiers conduct a reconnaissance mission during the Jungle Operations Training Course - Panama on 19 February 2026. (Photo by SPC Richard Morgan)



A member of the Servicio Nacional Aeronaval applies camouflage during the culminating event of Jungle Operations Training Course - Panama on 26 March 2026. (Photo by SPC Trey Woodard)

through the 18-day course. SFC Michael Spooner of 1st Battalion, ASCG-S stated, "I've been in the Army for 16 years, and I'm very excited to be going through Jungle School in Panama. I have had friends that went through the training in the 1990s and wanted to test myself." SSG Davis Schrock from 6th Battalion, ASCG-S said enthusiastically, "I'm very excited to be here. I wanted to be in the last class [26-03, for which there were nine Soldiers from the 82nd Airborne Division and nine from ASCG-S], but wasn't able to get a spot."

Despite the cadre's admirable efforts, the jungle ultimately served as the primary instructors. SSG Logan Lloyd of the 10th Mountain Division described his initial shock: "I thought the environment would be similar to Hawaii, but it's very different. Everything here can potentially kill or hurt you." This sentiment is echoed by the class honor graduate, SSG Jeremy Chadwick of the 82nd Airborne Division. Also a graduate of the Lightning Academy course in Hawaii, SSG Chadwick stated, "We do land navigation and field exercises stateside. It's nothing compared to what we experienced here. Terrain association is key in a jungle environment, and you cannot depend on dead reckoning because the elevation and vegetation change drastically here. You have to cut your way through the jungle in certain areas."

The Gut Check

After in-processing on Day 1, students are thrown directly into a Combat Water Survival Assessment (CWSA), separating those who can swim and function in water while wearing their uniform and equipment. Day 2 starts with a 5K terrain run, which they must complete in 40 minutes or less carrying a rifle and wearing a front load carrier. This event is a gut check through the mud and hills of Cristóbal Colón, designed to test physical resilience from the outset. "The humidity, the constant wetness... It's equivalent to a sauna, and then add running a 5K through the jungle, and that's only the beginning of the school," said SFC Spooner. CWSA and the 5K are both critical requirements; students who fail either event will continue training but not earn the ASI. Following the 5K, students receive instruction in medical training in a jungle environment (jungle medicine, medical evacuation, field hemorrhage control, and modern splinting techniques) as well as hands-on knot-tying training.

Learning the Basics and Surviving in the Jungle

Students then learn the basics of living and operating in a jungle environment. They receive hands-on instruction on sharpening and safely using machetes. After learning about local flora and fauna procurement, they are tested on the mandatory knots used throughout the course, and then receive blocks of instruction on animal trapping, fire building, and shelter crafting, before finally conducting a survival day practical exercise in which students eat only what they can catch and safely process. SSG Lloyd explained that the "most useful piece of equipment during this course is the machete because you not only cut through the jungle, but you can make essential tools with it (cups, forks, spoons, fishing pole)."

Rope Systems and Jungle Techniques

Students then transition to learning about tactical operations in a jungle. They learn and are eventually tested on rope systems that include the Z-Pulley (used to lower/raise casualties or move heavy equipment in a steep environment) and the one-rope bridge (used for water crossings). Next, students train in day land navigation in the jungle and execute waterborne operations, both critical skills for the culminating event. For SSG Schrock, the waterborne training stood out: "It was great training and very realistic. The water crossing was the most disgusting water I have ever been in, and I accidentally swallowed some during the event."

Students then learn jungle-specific movement techniques, battle drills, and tracking/anti-tracking classes, and receive the first mission for the field training exercise (FTX).

Culminating Exercise, Green Mile, and Graduation

In the final phase of the FTX, students are inserted into the jungle via helicopter to start their missions. They conduct sustained operations, operating and sleeping in the jungle. SSG Chadwick identified the squad attack on the second day of his mission as the most grueling. "The entire area was a swamp, and the exfil was hard because there was no good route out of the area," he said, "We just had to go through the swamp."

Finally, the students execute the final critical event, the "Green Mile," a team event that requires squads to surmount multiple obstacles and complete grueling stations before reaching the finish line in the rustic cantonment area. If those students meet all course requirements, they earn the ASI and will be ceremonially presented with the "Jungle Tab" (the same as in Hawaii) as a nod to the former Jungle Expert patch.

Transforming into a Jungle Warfighter

Thanks to the continued support of the Government of Panama, U.S. Army Soldiers are yet again finding opportunity to test their mettle in one of the world's harshest environments. Even better, they get to do so alongside Panamanian security force partners. And they are learning from foremost experts on surviving in that environment, like 1SG Fajardo, as well as U.S. Army cadre who are literally traveling around the globe to find and integrate jungle lessons from the joint and combined force. Soldiers who step up to the challenge of attending this course are quickly humbled by the environment but then learn to operate within it, leaving the course confident they can outlast and outfight any enemy. SPC Hunter Foor can attest: "I feel like I'm a better Soldier now. The survival training alone has been really beneficial. I feel confident that if separated or in an isolated environment, I can survive on my own."

Conducting jungle training again in Panama honors the past by acknowledging lessons learned during WWII and Vietnam and will help individual Soldiers — and perhaps soon units — to prepare to fight in any environment. The ability to dominate and win in harsh environments like the jungle will help deter — or defeat our adversaries, especially those that might otherwise view the jungle terrain as a sanctuary that negates our technological advantage. The current course directly prevents this by testing techniques and validating technology to demonstrate that the U.S. and its partners can persevere, closing the strategic gap only partially mitigated by the course in Hawaii.

When asked how today's course compares with the one he attended in 1998, 1SG Fajardo stated the jungle course in the 1990s was old school and tougher. There was not the GPS capability of today, jungle land navigation was in denser terrain, the Green Mile had multiple extreme obstacles like the cargo up the cliff, and the equipment was more rudimentary. 1SG Fajardo said he is very proud to be an instructor and sees improvement to the course with each class. While it will take time for the course to regain its legendary status, he is confident in its return to prominence.

The jungle is a harsh and unforgiving teacher that demands mastery of the fundamentals, basics of survival, and adaptability without the use of technology. These skills are not limited to the jungle. If mastered here, Soldiers become more resourceful, resilient, and lethal globally. The revival of this course offers a unique opportunity to forge a new generation of jungle warfighters. SSG Schrock noted, "The jungle has taught me to live in the uncomfortable. I didn't realize how comfortable my life has been and how good I have it." SFC Alther called for units to "send the strong, don't send the weak."

The future of jungle warfare training is brighter than ever. Thanks to our partnership with the Panamanian forces, we are not just reopening a course — we are leveraging an unparalleled opportunity to build the world's premier jungle school. The energy is infectious, from the seasoned cadre integrating new technologies to the students discovering their own resilience. But this momentum depends on a steady stream of willing individuals, both students and instructors, who are eager to push their limits. We stand at the beginning of a new chapter, and we invite the best and most motivated to help us write it, forging a new standard of excellence in the legendary crucible of Panama.

Notes

[1] 1st Marine Division (1st MarDiv) 'The Old Breed,'" Pacific Wrecks, accessed 10 April 2026, https://pacificwrecks.com/unit/usmc/1st-MARDIV.html.

[2] Samuel Milner, *Victory in Papua* (Washington, D.C.: U.S. Army Center of Military History, 1957), 371.

[3] Admin., "Fort Sherman: The Largest Military Base in the Atlantic during the Canal Zone Period, The Visitor Panama, 29 September 2022, https://www.thevisitorpanama.info/eng/2022/09/28/fort-sherman-the-largest-military-base-in-the-atlantic-during-the-canal-zone-period/.

[4] War History Online, "Troops Called the U.S. Army's Jungle School a 'Green Hell,'" War History Online via Newsbreak, 16 August 2024, https://www.newsbreak.com/war-history-online-1745274/3607441843354-troops-called-the-us-army-s-jungle-school-a-green-hell.

[5] CSM (Retired) Wayne Wahlenmeier, interview with author.

[6] U.S. Department of State, Office of the Historian, "The Panama Canal and the Torrijos-Carter Treaties," n.d., https://history.state.gov/milestones/1977-1980/panama-canal.

[7] COL Brian S. Eifler, "Welcome (Back) to the Jungle," *Infantry*, January-March 2014, https://www.benning.army.mil/infantry/magazine/issues/2014/Jan-Mar/Eifler.html.

[8] All quotations from Jungle Operations Training Course students and cadre were obtained through interviews with authors.

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No Substitute for Boots on the Ground:

An Infantry Battalion's Value Proposition for U.S. Indo-Pacific Command

MAJ ZACK SPEAR

Big missiles, big decks, fifth-generation fighters, and heavy bombers monopolize attention in the Indo-Pacific. They are lethal, limited, exquisite, and expensive. But in the region's littorals — where restrictive terrain, dispersed geography, and dense human landscapes define the fight — what endures is a light infantry battalion's ability to persist, see, sense, strike, maneuver, protect, and sustain in ways large, high-tech systems cannot. The democratization of precision strike within the emergent reconnaissance-strike regime makes these battalions even more, not less, central to U.S. Indo-Pacific Command's success.[1] Maritime history — from Guadalcanal to the Falklands — shows that control ultimately turns on what disciplined infantry can seize, secure, and deny ashore.[2]

When adversary anti-access systems push large ships and aircraft outside threat rings, decision advantage shifts to formations that can stay forward, distribute risk, and translate intent into timely action. Here, the infantry battalion provides an enduring command-and-control (C2) node. Small, mobile command posts riding a resilient integrated tactical network — hopping among satellite, cellular, and mesh networks — push decisions to the tactical edge without broadcasting a large electromagnetic signature.[3] During my time as a battalion and brigade operations officer, we employed these capabilities from dispersed locations, including aboard ships, to maintain tempo and survivability. Lightweight, squad-carrying Infantry Squad Vehicles (ISVs) further shrink the footprint required to move and disperse.[4] In the Indo-Pacific, centralized control risks irrelevance; distributed battalions operating under commander's intent enable decentralized execution to maximize tempo across a contested archipelagic environment.

This forward posture is only meaningful with allies and partners — the Indo-Pacific's strategic advantage.[5] Most regional militaries are land-centric; their forces and capabilities are anchored ashore.[6] Soldiers on the ground foster trust, reinforcing relationships that enable access and basing for strategic forward posture that no fly-over or port visit can replicate. Presence also carries outsized informational effects on a battleground that is equally about narratives. Shoulder-to-shoulder with allies and partners, a light infantry battalion is the physical manifestation of our national commitment, enabling integrated and impactful information operations.[7] Historically, the deployment of U.S. troops to West Berlin during the Cold War served as a powerful symbol of American resolve, deterring Soviet aggression. Similarly, modern U.S. training missions, such as the

Soldiers in the 2nd Mobile Brigade, 25th Infantry Division move their Infantry Squad Vehicles as part of a ground assault convoy during Salaknib 25 at Camp Dela Cruz, Philippines, on 18 June 2025. (Photo by SPC Aiden O'Marra)

discreet expansion of U.S. troop presence on Taiwan, carry outsized informational effects — reassuring partners and deterring adversaries with the most tangible currency of commitment: people who remain when ships and aircraft rotate home.[8]

Infantry battalions also leverage presence to act as pervasive intelligence, surveillance, and reconnaissance assets. "Every Soldier is a sensor" is more than a slogan; it is a theater requirement: daily patrols, engagement with local populations, and reconnaissance through jungle, mountains, and urban clutter produce the ground truth that standoff sensors often miss. Layered atop this human overwatch is a new and growing constellation of small unmanned systems. The U.S. Army's transformation initiatives are equipping battalions with drones capable of providing full-motion video and other sensor data.[9] Lessons from Ukraine are clear: Ubiquitous tactical reconnaissance, first-person view (FPV) drone strikes, and drone-corrected fires extend a battalion's reach to dozens of kilometers, fusing sensing with shooting at unprecedented speed and scale.[10] With accelerated drone fielding, light infantry battalions tied into the joint fires network can provide Indo-Pacific Command instant, targetable data from the forward edge, enabling it to see, sense, and strike throughout the littorals.[11]

A Soldier employs a small unmanned aerial system during Joint Pacific Multinational Readiness Center Rotation 26-01. (Photo courtesy of the 25th Infantry Division)

This evolving tactical reconnaissance-strike complex is why a light infantry battalion is poised to become one of the most consequential fires assets in the theater — the number one capability Admiral Samuel Paparo treasures from the Army.[12] Multi-Domain Task Forces provide an exquisite operational targeting and theater fires backbone, but infantry battalions can flood the littorals with cheaper, attritable strike capacity — FPV drones, medium bombers, Javelins, and Stingers for near-range interdiction, with longer-range loitering munitions to attrit high-value targets — preserving the magazine depth of scarce, exquisite missiles.[13] This value is something Indo-Pacific Command inherently recognizes given its "hellscape" concept.[14] However, it will not be able to divorce its requirement for unmanned systems from a dependence on the distributed mass of units that can hide, maintain, launch, and reconstitute those systems under fire. Dispersed infantry elements in restrictive coastal terrain can also counter special operations forces infiltrations and deny sea control at the edge of territorial waters (22 kilometers) or into exclusive economic zones (370 kilometers). Historical parallels include the Battle of Guadalcanal during World War II, where U.S. infantry units, supported by naval and air assets, successfully denied Japanese forces control of the island. Similarly, modern infantry battalions, equipped with precision-strike drones and small missiles, can complicate adversary risk calculus by increasing the volume, range, and dispersion of fire support.

Critically, Marine Corps concepts directly align with this approach. As stand-in forces, Marine littoral regiments aim to persist inside weapons engagement zones, sense the environment, close kill chains, and create decision advantage for the joint force.[15] Forward Army light infantry battalions provide a complement: increasing stand-in land nodes alongside Marines, extending sensing networks ashore, securing and protecting expeditionary advanced bases, and reinforcing the lodgments that enable joint maritime operations. Marines will win battles, but the Army is the force of protraction, complementing with endurance to win wars. In practice, Army and Marine units should plan and operate as a single littoral team under joint task force constructs — common C2, shared sensor grids, coordinated deception, and mutually supporting surface connectors and aviation lift — to turn disaggregated island positions into a coherent maritime kill web.

Similarly, like the Marines, Army infantry units maintain movement and maneuver as a signature contribution and offer U.S. Indo-Pacific Command an area control multi-tool. The People's Liberation Army Rocket Force and its Dong Feng-21D anti-ship missiles can deny access but cannot hold ground or provide sea control. Likewise, U.S. fighters, bombers, and aircraft carriers are no replacement for boots on the ground when it comes to controlling the land in the Indo-Pacific. These capabilities offer area denial but not control. World War II's island campaigns in the Solomons and New Guinea, the Korean War's Inchon-Seoul operation, and the British fight across the Falklands all demonstrate a common rule: Victory in a maritime theater depends on land forces seizing, defending, and sustaining lodgments that enable the rest of the joint force.[16] As GEN Charles Flynn noted, "There will always be a requirement for the Army to defend or impose will where people live, on the land."[17] In today's Indo-Pacific, light infantry battalions bring small-unit mastery and the mobility to hop by rotary wing, surface craft, or commercial lift among austere airstrips, beaches, or

landing zones, then fan out by foot or in ISVs to secure key terrain, ports, airfields, and coastal chokepoints.

That said, the distances to cross in the Indo-Pacific are vast. If forces are not postured forward at the onset of conflict, Army light infantry battalions will be highly dependent on the joint force for strategic lift by sea or air. Nevertheless, Army watercraft, including logistics support vessels and LCU-2000s, can support organic maritime movement in the first island chain, while combat rubber raiding craft enable local covert insertions and riverine/coastal resupply.[18] However, the Army should accelerate acquisition of the maneuver support vessel-light, at scale, to more efficiently shuttle people, equipment, fuel, and munitions between strategic sealift, sanctuary harbors, austere beaches, and unimproved ports. Separately, Army aviation, using CH-47s and UH-60s, can support long-range air assaults. Though it is at its best when supported by joint assets like the Navy's expeditionary sea base vessel. As a brigade operations officer during Balikatan 23, my unit executed a multi-nodal joint and combined long-range air assault using joint rotary-wing assets and an expeditionary sea base for island hopping north of Luzon.[19]

With maneuver comes protection. Ports, airfields, fuel farms, ground terminals, and logistics hubs are the arteries of power projection; all are on land and all require security. The same goes for exquisite theater fires assets like the Mid-Range Capability.[20] Light infantry battalions provide patrols, counter-reconnaissance, perimeter defense, and quick reaction forces that protect joint capabilities from sabotage, special-purpose raids, and low-signature drone attacks. Dispersion also confers survivability — they are hard to find and too numerous to justify million-dollar missiles. Properly equipped, battalions can flip the cost-exchange ratio, conserving high-end interceptors for cruise missiles and aircraft while using attritable and non-kinetic systems against attritable threats — a lesson reinforced daily over Ukraine.[21]

Finally, sustainment is where the light infantry battalion punches above its weight. Ships and fighters demand ports and airfields brimming with fuelers, maintainers, and specialized parts. Light infantry battalions train to live austere, self-sustain for days, and operate with lean signatures. Prepositioned stocks, local sourcing, over-the-shore resupply by small craft, and commercial off-the-shelf parts for ISVs extend endurance at modest cost.[22] As uncrewed logistics mature — from quadcopter drops to rocket-delivered resupply — the light infantry battalion's endurance stretches even further, addressing a critical vulnerability in a theater where distant sea lanes and contested air corridors are the norm.[23]

Supporting the light infantry's tactical-reconnaissance strike complex is also an exercise in cost savings. Armed correctly, an infantry battalion could bring drones like the Shahed-136 to the fight.[24] From Luzon, Philippines, they could put at risk ships in the South China Sea, Taiwan Strait, Chinese mainland ports, Hainan Island, and radars and equipment on the Spratlys. These loitering munitions cost $35,000 on average.[25] Even with a 10-percent strike ratio, that is five times cheaper than a Naval Strike Missile.[26] Conversely, a modern light infantry battalion, properly trained, can defend against those same loitering munitions with $1,000 FPV drones, far more sustainable than using a Patriot Advanced Capability-3 interceptor at over $3 million or a National Advanced Surface-to-Air Missile System Air Intercept Missile 9-X variant at slightly over $1 million.[27]

Overall, timeless truths remain: People live on land, and wars are decided where they live. But the character of war is shifting. The democratization of precision-strike, pervasive overhead seeing and sensing, highly networked and distributed long-range fires, and contested information and cyber domains change how we need to fight. The modern light infantry battalion sits at the nexus. It ties allies to U.S. strategy, converts data to decisive action at the edge, delivers affordable combat power, and protects critical nodes, all with a minimal tail. To enable it, the Army needs to partner with the Indo-Pacific Command to accelerate the adoption and fielding of emerging technology for its light infantry battalions, including the network, mobility, and tactical reconnaissance-strike capabilities it has already begun identifying. It also needs to man them for reconnaissance-strike battle, and organize and train them with specific emphasis on the joint littoral fight of the future.[28]

A Soldier assigned to 1st Brigade Combat Team, 101st Airborne Division (Air Assault) observes as an Infantry Squad Vehicle is backed into a CH-47 Chinook for a long-range, large-scale air assault on 5 May 2025. (Photo by SGT Kelvin Johnson Jr.)

Historical precedent underscores the thesis. Guadalcanal was won by starving, stubborn infantry holding a rough airstrip that enabled sea and air control to follow.[29] Inchon's brilliance only mattered because Soldiers and Marines fought through Seoul to reopen the lodgment.[30] The Falklands campaign turned on light infantry grinding across bog and ridge to eject a superior force from the high ground overlooking littoral approaches.[31] Ukraine's battlefields now show that a light infantry battalion can see, sense, strike, and survive in ways unthinkable a decade ago — if manned, trained, equipped, and empowered to do so.[32] When our big ships and fancy fighters have to hold outside the threat ring, the modern light infantry battalion can persist — seeing, sensing, striking, moving, protecting, and enduring — enabling the joint force to prevail.

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Closing the Gap:

Forging Joint Readiness Through Amphibious Operations

CPT WILL LLOYD

The U.S. Indo-Pacific Command (INDOPACOM) area of responsibility (AOR) houses a breadth of ocean, archipelagos, land mass, nations, and cultures. This AOR undoubtedly requires vast Army participation with the 25th Infantry Division (ID) at the spearhead.

Army mission command philosophy emphasizes the necessity of decentralized command and control (C2), and this is even more essential in INDOPACOM.[1] Battalion and company leadership need to understand how to plan and fight in this challenging environment. The Army's pivot to the mobile brigade (MBDE) will enable enhanced reconnaissance, strike, and logistical capabilities — a proper adaptation to the evolving global threat. Nevertheless, the MBDE requires a capable delivery system (from garrison to objective) that the Army currently lacks.[2]

Today we have liberties that were not afforded in historical operations within the INDOPACOM region. We have developed enduring partnerships with Pacific Island nations; however, we still face severe macro-logistical challenges. Many of these nations have restrictions on hosting permanent military bases, which means we must transport our personnel, equipment, and supplies over vast distances from Hawaii and the U.S. West Coast to partner nations such as the Philippines. We must accomplish this while also maintaining force protection and an active offense.

While the 25th ID plays a vital role, we must lean on all arms of the Department of War (DoW) and collaborate with our foreign partners to establish a viable operational presence in the INDOPACOM AOR. This article proposes using amphibious operations as a relevant framework to drive enhanced joint integration. The "why" begins at the operational level, illustrating the strategic imperatives that necessitate this capability, and works downward to highlight its relevance at the tactical level. Conversely, the "how" starts at the tactical level, offering actionable steps that company-grade officers can implement today, and builds upward to inform broader tactical and operational solutions. Ultimately, these perspectives provide a comprehensive roadmap that treats amphibious operations not as an end but as a necessary vehicle to forge the deep joint coordination and tactical transport proficiency required down to the lowest echelons — a capability that will be paramount for success in any future large-scale combat operations (LSCO) in the Indo-Pacific theater.

Soldiers from the 25th Infantry Division disembark the U.S. Army Vessel General Brehon B. Somervell (LSV-3) after a 20-hour journey to Hawaii Island on 18 October 2021. (Photo by SPC Rachel Christensen)

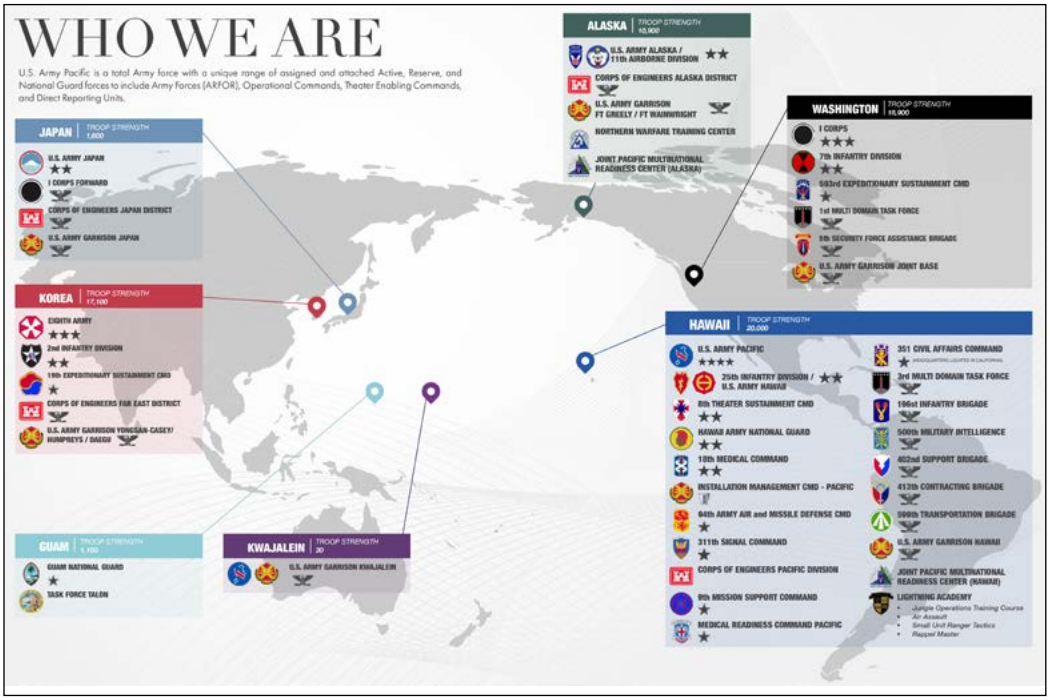


Figure 1 — USARPAC Theater Army Strategy (Fiscal Year 2026)

History

During World War II, the United States fought with six corps and 22 divisions.[3] Figure 2 provides an operational graphic of the Battle for Leyte Gulf, which set the stage for the final push of the Pacific Campaign. Take note of the breadth of the joint friendly force (to include foreign partners) as well as the joint enemy. This intricate operational landscape is a testament to the extensive efforts that must take place in this AOR. It took more than two years of shaping operations to reach this point, consisting largely of amphibious operations.[4]

Let's revisit the concept of decentralized C2. History (for example, Vietnam) shows us decentralized C2 is paramount on a rapidly changing and unpredictable battlefield.[5] The expansive joint nature of INDOPACOM only amplifies this. The obvious point is that the more complex the operation is, the more the higher headquarters must deconflict, which incentivizes them to make it easier for them to do so. This dynamic does not lead to both decentralized C2 and efficient joint operations; rather, it leads to one or the other.

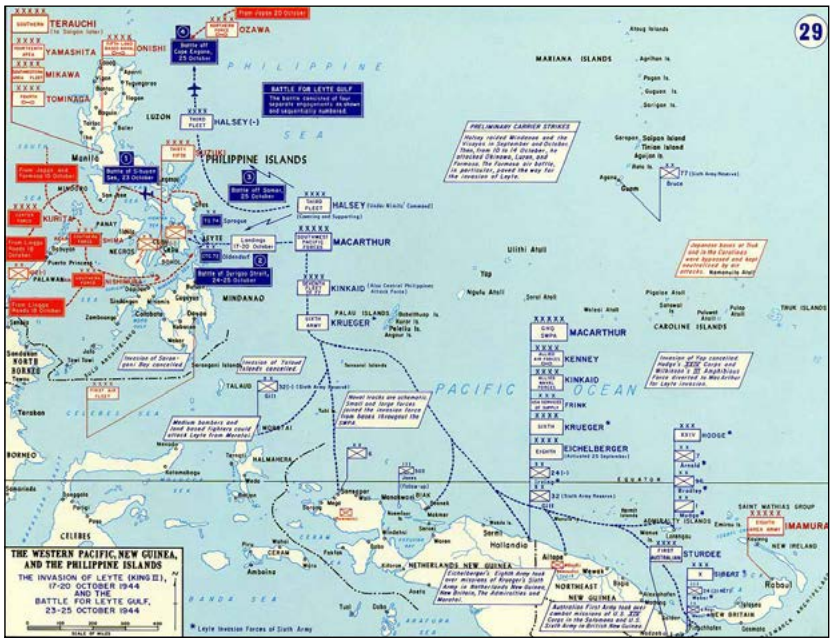
Switching gears, one must consider that the Army, and whole of DoW, began to shift focus to LSCO in 2018, after spending just under 20 years training for and conducting counterinsurgency operations. Only within the last four years has LSCO gained true mindshare. While history doesn't always repeat itself, it usually rhymes.[6] Since World War II, the Army has repeatedly been incorrectly pre-positioned (in training terms) to fight the war it was called to (i.e., the Korean War, the Vietnam War, and the global war on terrorism).

Even now, the Army faces challenges with being prepared for both an eastern and western front.[7] The east houses a layer of allies and land between the nearest aggressors, while the west has a less-resolute layer of allies and a whole lot of water. Given the post-Vietnam focus of operations, it's unsurprising that we lack adequate preparation for amphibious warfare and cross-ocean movements in INDOPACOM, especially considering where our adversaries have operated and their capabilities in the years since.

Theory/Doctrine

So, what's different now? Our most significant adversary is now situated in INDOPACOM, with their aggression steadily escalating. Our assets and partners have expanded (in both capability and complexity) while our internal manning has contracted. The Army has relationships and presence to the east and south of China, but the Pacific is by no means an "uncontested environment." Seeing the vast Army presence as indicated in Figure 1 may ease one's tactical mind, but in an active wartime scenario (due to the modern enemy threat in the region), there are significant challenges posed in getting rearward troops to locations in the Indo-Pacific.[8] Additionally, consider that the bulk of our Army resides in the continental U.S.

Figure 2 — The Western Pacific, New Guinea, and the Philippine Islands, October 1944 (https://dhc.westpoint.edu/atlases/)



(CONUS), which nearly doubles the distance-based challenge that we already face in Hawaii. One must consider the contest of land, air, and sea space. The Army cannot solely rely on air transport to get to the nearest staging area, nor can it rely on organic sea transport.[9] The U.S. Army Pacific Command (USARPAC) fleet is reaching the end of its service life — sitting around 35-percent fully mission capable and on a declining trend.[10] At the same time, the demand for Army watercraft has increased: "watercraft use in combatant command plans for the Indo-Pacific theater are under development and expected to increase."[11] The U.S. government and the Army are working on solutions; an interesting one was highlighted in a 2024 *Army Times* article: "Army Futures Command's new Cross Functional Team-Contested Logistics is looking at expanding the use of autonomous watercraft to resupply Soldiers in island chains across the Pacific, both during future exercises and in a potential conflict."[12] The implication is that currently, and likely within the next few years at minimum, the Army would rely out of necessity on joint-service transportation in the INDOPACOM, specifically naval vessels, with little-to-no experience in planning and executing these operations.

Through exercises like Rim of the Pacific (RIMPAC) and Operation Pathways, there is an initiative to get ahead of these issues. However, it dissolves at the tactical level, as the mission-essential task list (METL) for an infantry battalion in an MBDE does not explicitly cover this. Even at the operational level, we seem to be missing the mark. When long-distance movements for Operation Pathways exercises are done via chartered flights, the training value is severely diminished. The unfortunate result is that the opportunity to plan and execute "movement" of main body forces, which we know is an operation in and of itself, is missed.

> *The limiting factor for combined and joint sustainment operations was not because of a lack of resources, but rather because those resources could not be delivered to the point of need... Future operations will likely occur in a dynamic and potentially lethal environment where flexibility at the lowest level will be essential to mission success. The ability and authority to mix air, land, and sea distribution capabilities at the tactical level headquarters will increase flexibility and their ability to rapidly adapt to their environment.*[13]

This wargame insight clearly articulates that we still face similar C2 and asset organization issues that we saw in Vietnam.[14] At the tactical level, flexibility is paramount, but this doesn't mean we shouldn't plan (the first principle of patrolling — planning). So, while our higher headquarters works to close the gap, how can the infantry company, battalion, etc., prepare? In the following sections, I will answer that question and then dive into solutions for consideration.

Starting Point Solution

A thoughtful exploration of the complexity and critical nature of the joint environment in INDOPACOM reveals significant logistics challenges that must be filled by our Department of the Navy counterparts. It is therefore necessary for Army leaders at the battalion and company level to understand Naval and Marine assets and capabilities. If we are to embrace decentralized command and control, it is of equal importance that our tactical leaders possess the knowledge and experience to plan and fight with Naval and Marine forces and equipment.

At the tactical level, the starting point is to learn how to plan with and coordinate joint air and sea assets to supplement our logistics capabilities. The Department of the Navy offers three courses that provide immediate value: Amphibious Warfare Indoctrination (AWI), Amphibious Warfare Staff Planning (AWSP), and Joint Logistics Over-The-Shore (JLOTS) Staff Planning.

AWI provides the necessary background to understand the Naval/Marine force structure, assets, and capabilities. This informs planning and coordination when relying on or working with the Navy and Marines, who possess critical beach landing craft and naval gunfire support. For instance, planners must understand that naval gunfire capabilities vary widely by ship class. For aviation personnel, there are different limitations specific to the ship, other aircraft on it, and the plan — all things to consider for an airborne ship-to-shore operation. On a note of complexity, Naval and Marine

Pilots from the 2nd Battalion, 25th Aviation Regiment, 25th Combat Aviation Brigade, 25th Infantry Division, prepare to land on the USS Shiloh while conducting deck landing qualification near Oahu, HI, on 6 May 2025. (Photo by SPC Mariah Aguilar)

aircraft capabilities are deep and broad, requiring a difficult air movement table due to limited deck space. Of most importance, the Navy and Marines can organically communicate, while the Army uses different systems and processes. This can be a consequential friction point if not addressed early, as communication solutions still require a human operator on either end who understands the intricate language (i.e., the roughly 350-word acronym index in the AWI Trainee Guide) and has rehearsed with the partner force in question.

AWSP builds on the knowledge from AWI and provides a necessary understanding of the Naval and Marine staff planning processes (NPP and MCPP). The course steeply cuts the learning curve for those who will inevitably plan amphibious operations in a joint environment. Students get hands-on experience with products related to ship-to-shore movements, aircraft sync matrices, wave composition tables, and more. By attending these paired courses, Army staff officers will gain the minimum building blocks to plan and coordinate not only joint amphibious operations but INDOPACOM-relevant joint operations in general.

To ensure this knowledge permeates the force, units should prioritize sending key leaders. At the company level, this includes the commander, executive officer, first sergeant, and platoon leaders with the most longevity. For a battalion, the S3, commander, and assistant S3s are essential, though ideally, all primary staff and command group members would attend. The same principle of sending key planners and leaders applies at the brigade level.

Finally, the Joint Logistics Over-The-Shore (JLOTS) Staff Planning course addresses the sustainment piece of the puzzle. This three-day mobile course instructs staff planners (O-2 to O-6 and E-6 to E-9) on the detailed planning of JLOTS operations. It specifically targets logistics and sustainment personnel, such as executive officers and S4 staff, covering everything from anchorage and lighterage operations to distribution and force protection.

Forward Looking

To avoid the joint-service issue until it becomes an "in your face" problem would be irresponsible. While attending the previously mentioned courses through a grass-roots effort is a great start, it is not a sustainable, systematic solution under the current construction. Therefore, I will briefly suggest some starting points to address the proposed problem set; understand that the below points are not heavily refined, but I hope they could provoke valuable discussions towards a solution.

I recommend that a new course on amphibious operations, with a POI specifically including the Army, is stood up in the INDOPACOM region. The course should be joint in nature, leveraging Navy, Army, and Marine instructors. The course would keep all services in the same room and start off with a relevant indoctrination into amphibious warfare and the unique challenges posed in the INDOPACOM AOR. It could even include visits to each service's base to view equipment/capabilities. Week two of the course could be a hands-on staff planning process. This proposed course structure would enable cross-service networking and familiarity as well as highlight unique challenges, all from the very start of attendees' INDOPACOM tenure. Most importantly, it would give all our senior-ranking personnel the resources to plan and execute. This course concept is not too different from the 25th ID's Basic Onboarding LightFighter Training (BOLT) course, which all in-processing division personnel are required to attend. This new course could feed into the INDOPACOM's identity, like how "Jungle" (through the Jungle Operations Training Course) is part of the 25th ID's.

By attending these paired courses [AWI and AWSP], Army staff officers will have the minimum building blocks to plan and coordinate not only joint amphibious operations but INDOPACOM-relevant joint operations in general.

I suggest that all personnel equal to or greater than 0-3/E-8 who conduct a permanent change of station (PCS) to INDOPACOM mandatorily attend this new course upon arrival. The result would be a ready-made command and staff upon arrival at the gaining unit. The knowledge would quickly permeate through the units receiving these officers/Soldiers and give commanders the opportunity to implement and operate new systems/processes.

Additionally, deeper training relationships would need to be established with the joint service (i.e., Navy and Marines) to then exercise the knowledge gained. A potential solution is to make it standard practice to conduct tactical movements to training destinations as part of Operation Pathways and include subordinate commands in the participation of RIMPAC.

A potentially simpler solution that higher headquarters can implement in the near-term would be the addition of a mission-essential task that supports an amphibious operation specifically for subordinate units within Army divisions like the 25th ID. The task doesn't have to exactly be "conduct an amphibious operation" so long as it still supports achievement of increased joint coordination as it relates to INDOPACOM.

Alternatively, to achieve amphibious competency, units could conduct one-week joint staff-planning exercises (battalion or above) with Marine Corps and Navy counterparts on a yearly or even bi-yearly basis. This is a less resource-intensive means to achieve a similar outcome.

I believe the most optimal outcome would be to stand up the previously mentioned "new course" and conduct an amphibious operation during the Joint Pacific Multinational Readiness Center (JPMRC) rotation — or equivalent training opportunity — to achieve planning experience for the planners (brigade and battalion staff) and execution for the executers (infantry companies).

Conclusion

In summary, this article argues that the U.S. Army's readiness for INDOPACOM warfare hinges on improving joint integration, and starting with amphibious operations is the most effective way to do so. It has laid out a comprehensive roadmap with both immediate, bottom-up solutions — such as tactical leaders attending existing Navy and Marine courses — and systemic, top-down changes, including the creation of a new, mandatory joint course in-theater and the integration of amphibious tasks into major exercises. The fundamental argument is that by embracing the inherent and relevant challenges of amphibious warfare, the Army can forge the deep-seated joint planning, communication, and logistics skills essential for any future conflict in the region. This proactive approach provides a deliberate path to readiness, ensuring the Army is prepared to not just be present in the Pacific but to effectively fight and win as part of a truly integrated joint force.

Finally, Army personnel notoriously say, "it'll buff" — meaning "it'll work itself out." Some readers may very well think this themselves, or at least, a variation of such, especially considering the ever-growing list of competing priorities our infantry brigades, battalions, and (especially) companies face. But, before writing off these suggestions, consider that "buffing" takes time, communication, and resources — all things that can and likely will be severely degraded once missiles start flying.[15]

I've been fortunate to participate in five joint multinational exercises during which I've held unique positions that have afforded me the opportunity to observe operations from the tactical edge up to division staff. When combining these factors with the military schooling I mentioned, I've been granted a unique outlook that has informed my writing here.

In support of Operation Pathways, I served as a liaison officer for 1st Battalion, 21st Infantry Regiment to a German airborne company during Talisman Sabre 23 where I saw firsthand the difficulty of joint operations. On the U.S. side, the logistics to and from the island were centered on civilian transport (irrelevant in wartime). On the ground, the primary point of friction was communication.

During JPMRC 25, I was a battalion to brigade liaison officer. During the rotation, a Naval destroyer off the coast provided fire support for our brigade. Virtually no one at the brigade understood how to utilize this destroyer and relied solely on the single Air Force tactical air control party who resided in the brigade tactical operations center.

As a graduate of the 25th ID's Jungle Operations Training Course, I can confirm that we have a general understanding of how to survive and fight effectively in a jungle environment. That environment is "the destination," but we need a better understanding of the logistics and tactics of a ship-to-shore movement or "the journey to the destination."

Soldiers assigned to 25th Infantry Division Artillery conduct a rapid infiltration exercise at Marine Corps Training Area Bellows, HI. (Screenshot from video by SGT Abreanna Goodrich)

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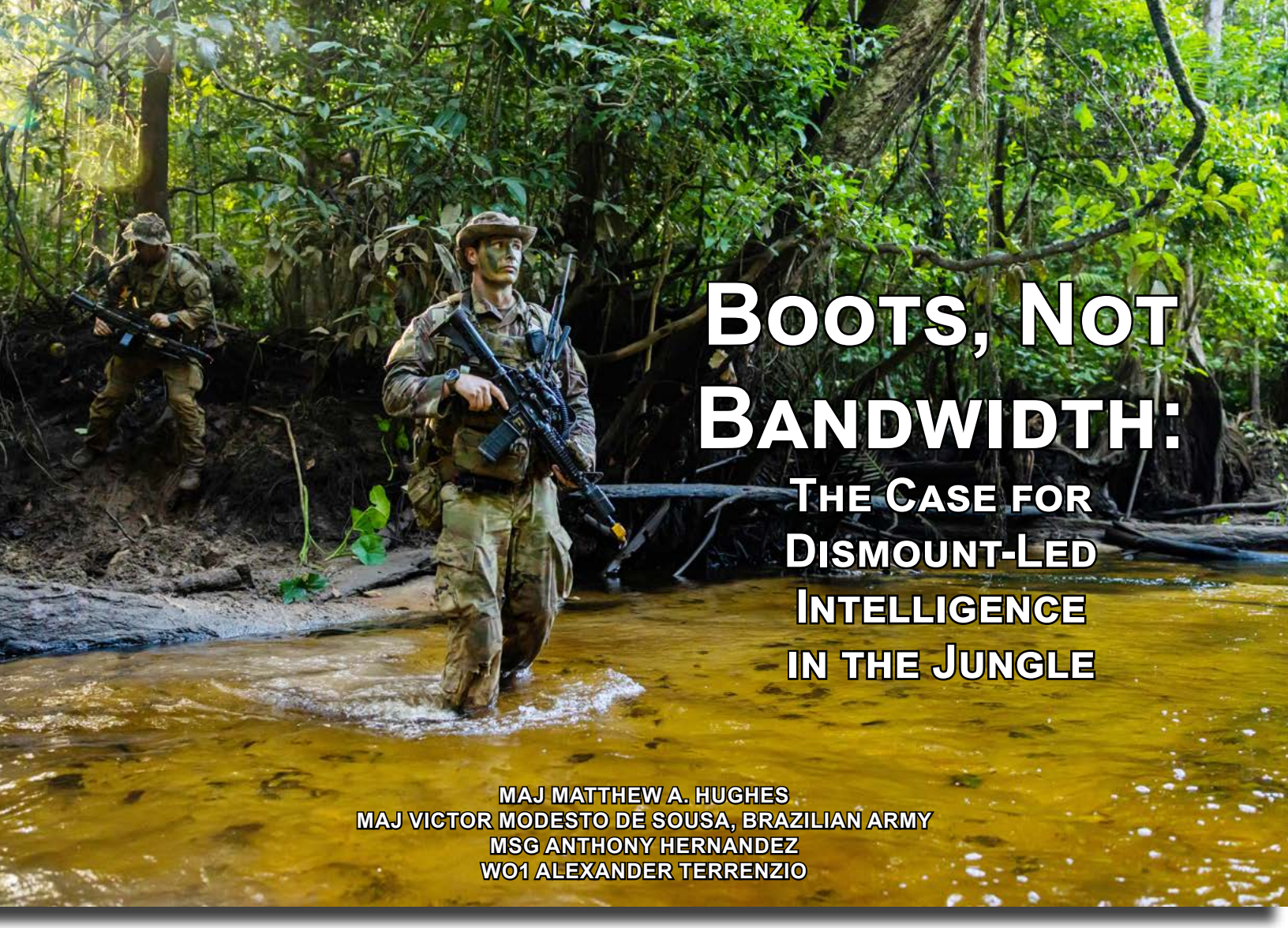

Boots, Not Bandwidth:

The Case for Dismount-Led Intelligence in the Jungle

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From 31 October to 16 November 2023, forces from the 2nd Brigade,101st Airborne Division; 7th Special Forces Group; and the New York Army National Guard joined the Brazilian Army's 23rd Jungle Infantry Brigade to execute Exercise Southern Vanguard 24 in the jungle environments of Belém, Macapá, and Oiapoque, Brazil. This combined exercise, developed by U.S. Army South in conjunction with the Brazilian Army's Land Operation Command and Northern Military Command, included jungle training (academics), a military freefall to conduct special reconnaissance, a conventional air assault, a ground tactical movement, and a combined raid.

Among several valuable observations from the exercise, the Brazilian Army's after action review included the following insight regarding operations in jungle environments:

> *The dynamism of frontline actions, the vast and growing array of resources employed in combat, and the need to update situational awareness for the benefit of higher command underscore the importance of the soldier as an intelligence vector and their role as a trigger for the flow of information. Therefore, it is necessary to highlight one aspect as an opportunity for improvement: the intensification of intelligence training and the development of a mindset for constant intelligence […] reporting, at all levels.*[1]

Above, Soldiers in 1st Battalion, 26th Infantry Regiment, 2nd Brigade Combat Team, 101st Airborne Division (Air Assault), cross a river during Exercise Southern Vanguard 24 in Oiapoque, Brazil, on 15 November 2023. (Photos by SPC Joshua Taeckens)

Environmental factors and gaps in doctrine, equipment, and training limit the effectiveness of traditional intelligence collection platforms. As MAJ Michael Everett recently stated in the *Military Intelligence Professional Bulletin*, "Current IPOE [intelligence preparation of the operational environment] doctrine… is lacking in one significant area: considerations for extreme environments, including the arctic, desert, and jungle environments."[2] He explained that these unique environments require "a fundamentally different approach to IPOE."[3] In this regard, the approach in jungle environments necessitates an uncharacteristic dependence on dismounted Soldiers for effective IPOE, in particular, defining the operational environment and describing environmental effects on operations with an intelligence collection plan that features dismounted troops.

In this article, analysis focuses on IPOE steps 1 (define the operational environment) and 2 (describe environmental effects on operations). As threat types and characteristics can vary greatly across jungle environments, this article does not elaborate on steps 3 (evaluate the threat) and 4

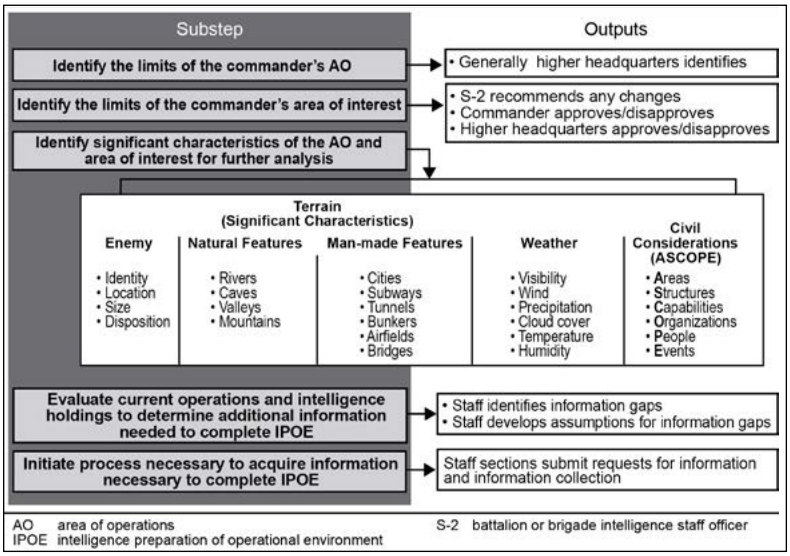


Figure 1 — Substeps and Outputs of Step 1 of the IPOE Process (Army Techniques Publication [ATP] 2-01.3, Figure 3-1)

(determine threat courses of action). Based on a variety of factors unique to jungle environments, dismounts — the most reliable sensor — play a pivotal role in information collection and fill intelligence gaps. Recommendations to remedy identified gaps in collection and analysis address training, unit composition, and security cooperation.

IPOE Step 1: Define the Operational Environment

Units perform IPOE to gain a comprehensive understanding of variables like terrain, weather, and threat capabilities and limitations to account for these factors throughout planning and decision-making. The IPOE process begins with the identification of administrative boundaries and significant characteristics or activities within the OE that may influence friendly and threat courses of action and command decisions (Figure 1). Within an operational environment, operations may "simultaneously encompass multiple domains, military engagements, and populations."[4] The jungle is similar to other extreme environments in that "regardless of technological advances, the elements are always the most significant challenge."[5] Hence, this step is essential in jungles for effective planning and mission success.

In jungles, this step is particularly complex given the variety of geographic features including dense canopies, various types of vegetation, and river networks. Weather conditions can also cause rapid changes in landscapes, to include islands appearing or disappearing based on monsoons and flooding.

IPOE Step 2: Describe Environmental Effects on Operations

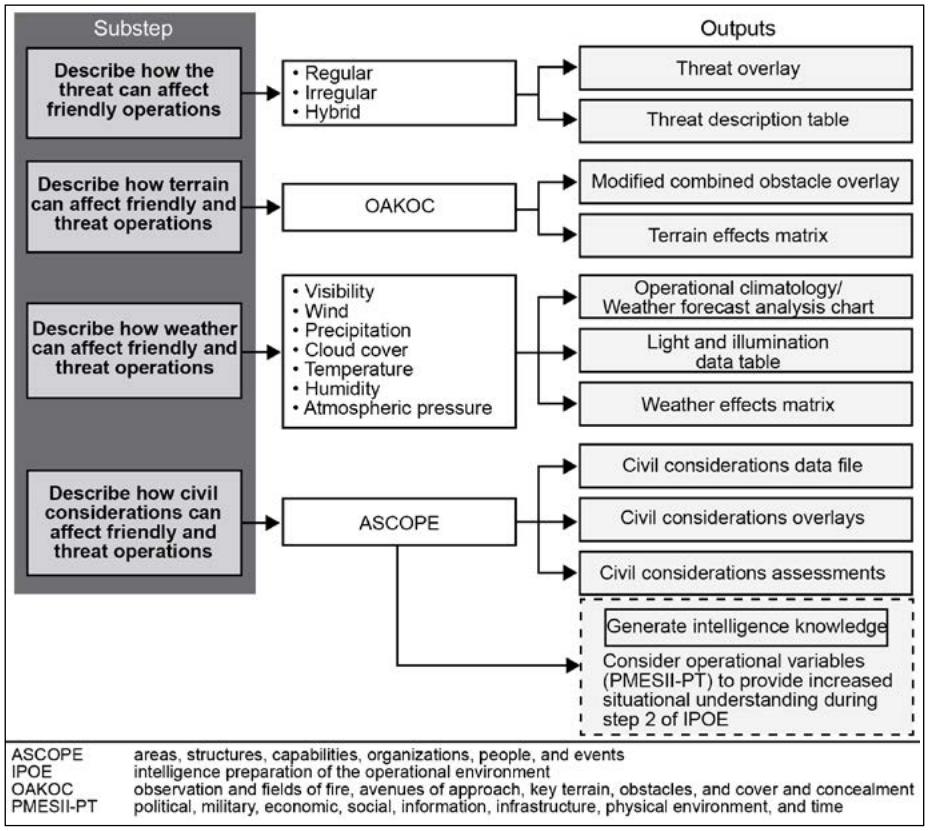
Having identified significant characteristics of the environment, the staff assesses impacts to operations during IPOE step 2. This step accounts for existing and projected conditions in the area of operations (AO) and area of interest (AI) to determine the effects on both friendly and threat operations. Environmental effects have a significant impact on all levels of the operation and require an in-depth analysis of impacts to warfighting functions. This is especially relevant to intelligence, as jungle terrain and weather factors significantly affect information collection operations. A deliberate study investigates characteristics of the enemy, terrain, weather, and civil considerations using analytical frameworks to understand how each can affect the mission, constituting step 2 of the IPOE process (see Figure 2).

Terrain

Terrain includes natural features and man-made features. The staff analyzes the military aspects of terrain using the acronym OAKOC: observation and fields of fire, avenues of approach, key terrain, obstacles, and cover and concealment.

Observation and fields of fire in the jungle are extremely limited during daylight hours and virtually nonexistent at night. The jungle's thick canopy and dense vegeta-

Figure 2 — Substeps and Outputs of Step 2 of the IPOE Process (ATP 2-01.3, Figure 4-1)



tion impose significant constraints on human vision and aerial observation, including degraded satellite and aerial surveillance, limiting geospatial intelligence collection.[6] Consequently, advantages in observation lie with those inside the vegetation, looking toward an avenue of approach or key terrain. Within the depths of the jungle, most troop encounters are incidental, precisely due to this limitation. In this context, the use of thermal and electro-optical equipment becomes increasingly important, making proper utilization of technology a decisive factor in force imbalance.

In jungles, avenues of approach (AAs), or "path[s] used by an attacking force leading to its objective or to key terrain," include roads, trails and primary jungle (never cut before).[7] Maritime or riverine AAs are those that allow movement by water, so in jungles, they can be oceanic (coastal) or fluvial, with transport capacity being the determining factor in establishing a river as an AA or an obstacle. Aerial AAs are generally river channels that permit tactical contour flights (nap of the earth), while for general overflights, the entire area of operations is usually a free air corridor with obstacles like large rock formations or mountains.

In general, key terrain can be elevated positions that provide good fields of observation and fields of fire or cover and concealment from direct fire, but clearings, inlets, river junctions, road junctions and settlements are the most common types of key terrain in jungles. The clearings are favorable for airmobile operations as a resupply or landing points for logistical transport. Inlets allow control of large-scale landing areas, enabling better logistical support and troop transportation. Controlling inlets is of great importance for units with river capacity for operations at brigade level or higher. River and road junctions serve as key control points for large-scale movement, requiring expansive AAs to maneuver logistical assets. Settlements are key terrain, as most transportation modes that constitute AAs converge there and depart from them.

Dense vegetation (including *secondary jungle*, or areas that have been cut along roads but have grown back denser than the original jungle), rugged terrain, large rivers and streams, and swamps and flooded areas are the main obstacles to ground operations in a jungle environment. These obstacles restrict the use of medium and large vehicles, hinder logistical support, reduce observation for indirect fire, complicate command and control, and, above all, make intelligence collection vital to the success of operations. Dense vegetation also reduces signal propagation, but high frequency (HF) waves can travel via ionospheric refraction, skipping off the ionosphere (the layer of charged particles in the upper atmosphere) to reach distant locations and bypass obstacles like vegetation blocking a direct path. The limited infrastructure and technology in most jungles means that the "detection of even faint electronic signatures can indicate the enemy's presence," so signals intelligence can be particularly effective in these environments.[8] Concerning cover and concealment, medium- and large-sized trees provide both, while the canopy enhances concealment from aerial observation. However, movement along waterways or roads is easily identifiable. Visibility from within the jungle looking outward is generally superior to outside-in visibility, as forces positioned inside can use natural concealment while observing movements along open terrain or AAs.

Weather

The jungle environment is known for its extremely humid climate. The process of photosynthesis, combined with the presence of rivers, streams, and large aquifers — common in this type of terrain — contributes to increased air moisture within the operational area. This high humidity affects military operations by accelerating equipment degradation and intensifying Soldier fatigue.

Precipitation patterns directly influence rivers. As a result, imagery that is not recent — potentially within a few hours — may be unreliable for important terrain features. New islands may appear from one day to the next in jungle rivers. Such rapid changes reduce the dependability of static imagery, requiring frequent updates for accurate terrain conditions. Weather patterns, such as monsoon season, greatly increase operational risk and impose limitations on technology like cloud cover that can block aerial imagery collection. Flooding can also limit access to AAs, forcing troops to rely on alternative routes or adjust their tactics based on terrain conditions.

The heat in this environment is extreme. Proximity to the equator or tropics, combined with the dense tree canopy, amplifies both temperature and thermal sensation. This affects the performance of certain weapons, making sustained operations significantly more challenging. Winds in the jungle are restricted to open areas. The dense vegetation typical of this environment significantly limits airflow within the forest, increasing the perceived temperature inside the canopy.

Visibility in jungle operations is significantly affected by environmental factors such as fog, dense vegetation, and limited light penetration. Fog, common in the early morning and late evening, further restricts visibility, as well as heavy rainfall. Nighttime visibility is nearly nonexistent due to the lack of natural illumination. The dense canopy prevents moonlight and starlight from penetrating, causing near-total darkness. This significantly restricts movement, as forces must navigate almost exclusively via AAs, such as rivers or roads, which serve as the only reliable routes under low-light conditions. The absence of natural light heightens the importance of light discipline, as even the faintest glow — whether from equipment, vehicles, or personal devices — becomes easily detectable against the surrounding darkness. Infrared and thermal optics are crucial tools, but their use must be carefully managed to prevent unwanted detection. As a result, maintaining strict light control is essential in jungle operations, where darkness itself can be both a tactical advantage and a severe operational limitation.

Civil Considerations

To assess civilian impacts to operations and categorize cultural and human factors in the operational environment, the staff uses the acronym ASCOPE: areas, structures, capabilities, organizations, people, and events. Population centers within the jungle are key terrain and constitute areas that are critical to logistical and operational control. They consolidate essential infrastructure and serve as nodes connecting AAs such as roads, rivers, and airfields. Settlements are strategic points for troop movements and sustainment support. Bridges and road intersections within or around these cities are critical nodes that regulate the flow of troops and supplies; thus, they require reinforced protection to avoid disruptions in logistical support. Control of these areas enables effective force projection and territorial dominance, both of which are decisive for successful operations in a jungle environment.

Brazilian and U.S. Soldiers conduct a movement by boat during Exercise Southern Vanguard 24 in Oiapoque, Brazil, on 12 November 2023.

Concerning structures, urban infrastructures — such as medical posts, hospitals, and Class III supply facilities (for fuel and lubricants) — play a vital role in sustainment. In addition, food distribution networks, airports, river ports, and ground terminals facilitate the rapid transport of troops and supplies. Urban architecture and strategically significant buildings can serve as observation posts, command centers, or defensive strongpoints against enemy action, ensuring that the operational tempo is maintained even under adverse environmental conditions.

Regarding capacities, settlements in the jungle provide operational advantages that enhance overall combat effectiveness. Their integrated transportation and communications networks — featuring airfields, river ports, and interconnected roads — facilitate rapid force movement and enable a high operational tempo, even in challenging terrain. Concentrated hubs for command and control, along with on-site maintenance and repair facilities, enable swift reconstitution of forces and rapid adaptation during engagements. Moreover, developed settlements support the integration of sophisticated intelligence assets and real-time surveillance systems, allowing commanders to coordinate operations more effectively across complex jungle environments. In essence, the inherent capacities of urban nodes directly favor maneuver, sustain connectivity, and amplify tactical responsiveness on the OE.

In terms of organizations in jungle environments, various civilian and social organizations exert significant influence over the operational landscape. Non-governmental organizations, indigenous communities, riverine populations, and local groups may either facilitate or hinder military actions. Indigenous and riverine peoples, with their deep knowledge of the terrain and survival skills, can offer vital intelligence or, alternatively, resist external control. Humanitarian and environmental organizations may also impact operations by shaping local perceptions and generating political challenges. Engagement with these groups must be managed through carefully coordinated information operations to secure local support and mitigate adverse influences.

Key local figures in jungle cities — such as political leaders, indigenous chiefs, religious authorities, and influential merchants — can play decisive roles in supporting or obstructing military operations. Their cooperation or opposition may determine the operational landscape, particularly through the flow of local intelligence and community influence. Military intelligence assets, including local informants and field agents, are crucial to leveraging these relationships, allowing commanders to negotiate strategic support or neutralize potential sources of disruption.

Significant religious and cultural events occurring within jungle cities can profoundly impact operational tempo. Traditional ceremonies, indigenous rituals, religious festivities, and social demonstrations may alter population movements, thereby affecting troop mobility and logistical routes. Likewise, political and social events — such as protests or community mobilizations — can create operational instability that must be monitored and integrated into risk assessments. Commanders must incorporate these variables into their

planning, ensuring strategic adaptability in an ever-changing operational environment.

Dismounted Contributions to Intelligence: Soldiers as Intelligence Vectors

As a result of terrain, weather, and civil considerations limiting the employment and intelligence value of many traditional collection assets in jungles, dismounts play a central role in the intelligence collection plan and bottom-up refinement of the common operational picture. "Like other environments, intelligence professionals perform all intelligence disciplines in the jungle," including counterintelligence (CI), measurement and signature intelligence (MASINT), geospatial intelligence (GEOINT), human intelligence (HUMINT), open-source intelligence (OSINT), signals intelligence (SIGINT), and technical intelligence (TECHINT).[9] A variety of environmental factors reduce the effectiveness of traditional intelligence collection platforms and increase reliance on reconnaissance patrols and observation points for useful information.

A Soldier assigned to 1st Battalion, 26th Infantry Regiment moves through the jungle during operations as part of Exercise Southern Vanguard 24 in Oiapoque, Brazil, on 12 November 2023.

Greater dispersion of forces in jungles compared to other environments also degrades redundancy and cueing of collection assets. Units may need to task-organize intelligence capabilities for greater redundancy and distribution of expertise and technical capabilities for information collection. In jungles, commanders "delegate information collection tasks to lower echelons," which increases reliance on dismounts for intelligence collection.[10]

Mobility restrictions in the jungle increase reliance on dismounts and require that "all information collection systems be light, man-portable, and rugged."[11] One Brazilian Army observation from Southern Vanguard 24 noted how lightweight, open vehicles are favorable for reconnaissance compared to armored or closed designs as they provide greater visibility and perception of surroundings.[12] Although some routes or trails may be navigable by vehicles and potentially yield some collection during movements, dismounts are less likely to be detected and enjoy greater mobility for reconnaissance.

Repeated or persistent presence of dismounts through patrols or observation posts also yield valuable intelligence likely missed through other information collection assets in jungles due to gaps in coverage for weather conditions. For instance, dismounts can identify mobility impacts of weather changes, such as flooded areas during monsoons, improving awareness of terrain conditions when change detection through geospatial intelligence assets is not possible. Persistent observation can also establish patterns of life for high-value targets when environmental conditions limit collection by other platforms.

While SIGINT collection would require task-organized forces with military intelligence personnel due to classification and technical considerations, light infantry or cavalry scouts can employ small unmanned aerial systems (UASs) in support of geospatial intelligence collection. Use of these systems is even more limited by weather factors than UAS at higher echelons, but they constitute an organic intelligence capability where forces are likely dispersed, and a small unit may not have priority for intelligence collection. Weather and maintenance permitting, this approach offers quick intelligence collection with imagery or full motion video, and it affords some physical standoff from the observed target. However, visual or audible detection and the limited range of small UAS can tip off a threat about the presence of a nearby force.

Although HUMINT is another technical field with activities like interrogation limited to Human Intelligence Collectors (35Ms), dismounts may contribute to collection and targeting efforts through inputs to analytical or targeting products

like link diagrams. The jungle environment tends to have low population density, so settlements play a fundamental role in data collection. Through daily activities, "Soldiers talk and interact with the local populace and observe more relevant information than technical sensors can collect."[13] Soldiers may conduct conversational interaction with the local population or during sensitive site exploitation to ask direct questions and ascertain useful information.[14] Soldiers may also conduct tactical questioning of detainees "at or near the point of capture," focusing on information that is of "immediate tactical value."[15] These activities can improve unit understanding of local threat networks and key relationships.

Dismounts also gather information during tactical site exploitation after actions like a raid or cordon and search, yielding actionable intelligence difficult to collect via any other means. In jungles, the potential intelligence value of such information is high, as threat forces often rely on paper documents, maps, hand-written orders, and basic communication equipment with limited access to technology. Similarly, biometrics collection can identify persons of interest and build out threat networks to enhance targeting.[16]

Inherent in this dependence on dismounted forces is a reliable communications network for reporting. Missions should include a complete primary, alternate, contingency, and emergency (PACE) plan and designated locations and/or times for transmissions to ensure timely reporting. Pre-mission briefs should also inform patrols of priority intelligence requirements (PIRs), and dismounts should be proficient in tactical site exploitation and providing intelligence summaries (INTSUMs). The Brazilian Army noted the following during Southern Vanguard 24:

> *It is essential to improve the use of the Reconnaissance Squad (Scouts), leveraging them as intelligence sensors more effectively. This includes ensuring the ability to establish rapid and efficient communications to accurately report on the enemy's approach, especially during ambush execution. It is important to create and refine TTPs [tactics, techniques, and procedures] for intelligence reporting, with a focus on transmitting critical information with maximum accuracy. This directly contributes to increased […] commanders' situational awareness and improved real-time decision making.*[17]

Because jungle environments reduce collection redundancy across intelligence disciplines, reliable communication is critical to ensure the timely reporting of dismounts — the primary source of actionable information.

Ultimately, jungle environmental factors limit the use of cueing, collection redundancy, and sensor mix. Dismounts are the most reliable, and sometimes, the only means of collection against some targets. Their reporting fills intelligence gaps regarding the operational environment, impacts of the environment on operations, and the enemy.

Recommendations

Although jungle training, such as combined exercises, has greatly improved expertise and experience in jungle operations, gaps remain in doctrine and training. There may also be opportunities to refine unit composition or designated functions to enhance intelligence collection and planning. Key recommendations to address these gaps and improve intelligence contributions of dismounts follow.

Dismounts are the most reliable, and sometimes, the only means of collection against some targets. Their reporting fills intelligence gaps regarding the operational environment, impacts of the environment on operations, and the enemy.

Incorporate tasks supporting intelligence into the Jungle Operations Training Course (JOTC)

One recommendation to address these intelligence gaps and capitalize on dismounts for collection is to incorporate additional training on support to intelligence collection into the 25th Infantry Division Lightning Academy's JOTC at Schofield Barracks, HI. Training tasks currently include aspects of combat tracking and sensitive site exploitation, but the course would be an ideal time to reinforce principles like PIRs, debriefings, and how dismounts contribute to developing an accurate intelligence picture.

After formal instruction, students can validate training on these tasks during the three-day culminating exercise (CULEX). Following each mission, debriefs, along with feedback from instructors, can provide practical training and enhance Soldiers' awareness of reporting procedures and proficiency in providing relevant intelligence. Separately, the course can include field expedient antenna training to improve unit capabilities to maintain communications with higher headquarters for timely intelligence reporting.

Reestablish company intelligence support teams (CoISTs)

Given the decentralized nature of jungle operations, the reintroduction of CoISTs can help remedy some intelligence gaps and challenges. CoISTs emerged during the height of the wars in Iraq and Afghanistan around 2007-2009 in direct response to intelligence gaps at the tactical level — specifically the company echelon which has no organic intelligence capability or analysis section. Generally, a CoIST was an NCO-led team with additional equipment and sometimes training to collect information and facilitate time-sensitive information-sharing.[18] Through patrol briefs and debriefs, intelligence preparation of the operational environment, site exploitation, and other activities, they advised the company commander by enhancing intelligence and their reporting improved the intelligence picture for higher commands.

Although companies sourced CoISTs internally, pulling them from tasks like pulling security or manning a quick reaction force (QRF), the majority of commanders with combat experience in those theaters felt that "the contributions of the CoIST [were] well worth the costs associated with resourcing it."[19] Furthermore, the Marine Corps recognizes the importance of tactical intelligence to the degree that it contains company-level intelligence cells with collection capabilities, and its force structure continues to evolve with Force Design 2030 providing "each company a signals intelligence/electronic warfare support team."[20]

A platoon leader in 1st Battalion, 26th Infantry Regiment participates in a platoon-level jungle mock-reconnaissance operation in Oiapoque, Brazil, on 13 November 2023.

CoISTs would be an excellent asset in jungle environments, likely even more critical than in open terrain due to isolated company-level operations. They can provide rapid analysis on weather effects, terrain considerations like choke points, and pattern recognition for threats. With training and equipping, CoISTs can also incorporate sensors or drones for autonomous collection and real-time analysis. Still, continuous flows of information would likely require satellite communication (SATCOM) capability or planned periodic movements to high ground to establish communications with higher headquarters. Ultimately, CoISTs can bring agility to companies operating in jungle environments by translating raw field data into actionable insight for the commander and higher headquarters.

Train on field expedient antenna construction

HF and satellite communications capabilities mitigate communications challenges in the jungle, but reliable friendly communications and collection on the enemy or threat require proper training and equipment. Field expedient antenna construction is a critical task for some military occupational specialties. Yet, few units train on these tasks as they take a lower priority compared to more urgent tasks and training. In contrast, every freshman at the Brazilian Army's Military Academy of Agulhas Negras trains on multiple types of antennas and how to make them, incorporating this task into land navigation lanes to transmit information at each point. The U.S. Army also has limited experience with this type of communication equipment in triple canopy jungle, so combined training in environments like those in northern Brazil during Southern Vanguard 24 offers ideal conditions to develop these skills.

Harness technology for the debriefing process and interpretation/translation

Utilizing software to generate transcriptions for debriefs can improve the value of dismounts' intelligence contributions. Debriefs tend to be time-consuming as Soldiers type out a summary of events during a patrol or answer questions of an intelligence analyst recording responses. Automated transcriptions can save time, accurately capture Soldier accounts, and improve data-mining value.

Separately, software programs can aid with interpretation/translation involving partner nation radio communications or with local tribes speaking unfamiliar languages or dialects, which is common in jungle environments. Southern Vanguard 24 after action reviews highlighted reliance on basic software tools to translate intelligence summaries from or to partner nation forces, even with losses in "some of the nuance of military terminology."[21] Soldiers can use recent innovations like the radio interoperability capability-universal (RIC-U) voice bridge for real-time interpretation of radio communications to overcome the language barrier and improve shared understanding.[22] This can foster information sharing and intelligence reporting. The RIC-U, however, "requires physical cabling between American and [partner nation] tactical radios, which limits its value in a dismounted scenario."[23] Standalone commercial software that does not rely on network connections can aid with understanding languages and dialects of local tribes to foster human intelligence.

Reactivate long range surveillance (LRS) teams for jungle operations

As part of efforts to modernize and reduce costs, the Army deactivated or dissolved most LRS units by 2017 but retained some in larger formations or incorporated some capabilities into reconnaissance, surveillance, and target acquisition (RSTA) squadrons. For jungle environments, however, where units are frequently dispersed, LRS capabilities are essential at lower-echelon units. After action reports from the Southwest Pacific Area during World War II and Vietnam indicate a clear "need [for] a jungle reconnaissance capability" — a capability still relevant and needed at lower echelons operating in jungle environments.[24]

Conclusion

In the jungle, a unit's quality of intelligence preparation of the operational environment depends heavily on the contributions of dismounted Soldiers, particularly in defining the operational environment and describing environmental effects on operations. Where terrain, weather, and canopy degrade or negate most information collection platforms, dismounts remain the most reliable and often the only viable sensors. This characteristic necessitates deliberate integration of dismount-centric collection into the information collection plan, training that generates proficiency in reporting and exploitation tasks, and force design that equips and empowers dismounts as the primary collection elements.

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Ready for the Pacific:

Intelligence Lessons from the Falklands Conflict

LTC GEORGE J. FUST

The U.S. Army must be ready for its Falklands moment in the Pacific. All warfighting functions must adapt to operating in a region where the tyranny of distance spans half the globe. This article focuses on the intelligence warfighting function in the Indo-Pacific Command (INDOPACOM) theater. Previous commanders have described the Pacific as the most consequential theater.[1] The most recent Office of the Director of National Intelligence (ODNI) Threat Assessment goes a step further and declares, "China presents the most comprehensive and robust military threat to U.S. national security."[2] The time to prepare for a crisis is now.

Intelligence provides vital functions, including maintaining situational awareness, targeting support, and setting the theater in support of operations.[3] The 1982 Falklands War offers a valuable case study for analyzing these functions under conditions strikingly similar to what U.S. forces may face in a Taiwan scenario. Although a China invasion scenario is often the vignette of choice, a Falklands moment could manifest in a variety of unforeseen contingencies.[4] This discussion assumes a U.S. response employing conventional forces. Using the Army's four-step operations process of plan, prepare, execute, and assess, this article draws lessons from the Falklands conflict to inform today's strategic imperatives. The intelligence enterprise must be organized and equipped today for war in the Pacific tomorrow.

The Falklands Conflict: A Strategic Primer

In 1982, Argentina launched a surprise invasion of the British-controlled Falkland Islands, located roughly 350 miles from the Argentine mainland.[5] The islands were quickly occupied by a 10,000-strong Argentine force. In response, the United Kingdom deployed a combined naval task force to retake the islands. That force had to operate more than 8,000 miles from home with tenuous sustainment and contested sea lines of communication.

Despite logistical and political constraints, the British ultimately succeeded, incurring approximately 250 fatalities compared to Argentina's 650.[6] Advantages in joint integration, small-unit tactics, adaptability, and particularly intelligence allowed the British to overcome the challenges of distance and an entrenched adversary.

Argentine forces consisted of a mix of conscript and professional soldiers and were well armed, fielding modern French weapons, including the Super Étendard aircraft and Exocet anti-ship missiles.[7] They also possessed a capable air force and, during one engagement, launched more than

Map 1 — Falklands Campaign, (Distances to Bases) 1982
(Map courtesy of U.S. Military Academy Department of History)

70 aircraft against the British fleet. The surprise seizure of the islands allowed Argentina time to establish prepared defensive positions and operate with significantly shorter lines of communication than the British. Some of Argentina's best units, however, remained fixed along the border with Chile as a deterrent, creating a strategic vulnerability.

In contrast, the British effectively leveraged intelligence to build an adaptable campaign plan and deceive Argentine

forces regarding the actual location of the amphibious landing.

The British naval task force consisted of both military vessels and requisitioned civilian ships. Many of the British Army's best units were mobilized to serve as the ground invasion force. While the British employed modern technology, including air defense capabilities, they were hindered by sustainment delays, and political considerations significantly shaped operational requirements.[8] Despite these constraints, the task force leveraged advantages in leadership, small-unit tactics, and intelligence to execute a successful joint forcible entry. Their ability to shape the information environment while remaining operationally flexible provided tangible advantages against an adversary with first-mover advantage.

Joint operations conducted at scale across vast distances are among the most complex military endeavors.[9] The U.S. Army in INDOPACOM must be postured to support the joint force under nearly identical conditions, and intelligence remains the key enabler.

INDOPACOM: A Falklands Refrain

Taiwan is located roughly 7,000 miles from California. Like the Atlantic in 1982, the Pacific Ocean offers few friendly staging bases. During the Falklands campaign, Britain relied on Ascension Island, which was remote but usable. In the Pacific, few options exist beyond Hawaii that are not within range of China's strike and sensor systems.[10]

The People's Republic of China is capable, determined, and focused on developing options for the forcible annexation of Taiwan.[11] At approximately 100 miles from the mainland, Taiwan lies well within the reach of Chinese garrisons and firing positions. Aircraft and helicopters can sortie from home stations without requiring aerial refueling or intermediate staging bases. As in the Falklands, the defender must respond over extended lines of communication.

Map 2 — INDOPACOM Area of Responsibility

Just as Argentina benefited from proximity and surprise, China would hold advantages in mass, magazine depth, and rapid mobilization.[12] The defender must overcome these advantages through superior planning, integration, and intelligence support to joint and coalition operations. A modern conflict would also require consideration of space and cyber domains, as well as the expanded role of unmanned systems. The central similarity remains the challenge of assembling combat power at distance while fighting through contested air and maritime domains. The intelligence principles that contributed to British success must be applied now, during peacetime.

The Intelligence Warfighting Function: Four-Step Analysis

Plan

As defined in Army Doctrine Publication (ADP) 5-0, *The Operations Process*, planning is the foundational command-and-control activity.[13] Effective intelligence support begins long before conflict through rigorous planning, detailed wargaming, and honest assessment of capabilities and limitations.

In INDOPACOM, U.S. Army Pacific conducts operational rehearsals that include the forward deployment of sensors and personnel.[14] These exercises stress assumptions and expose logistical challenges. As demonstrated in the Falklands, the force that plans effectively across land, sea, air, cyber, and space domains gains a decisive advantage.

Plans must also be realistic. British planners assumed certain platforms would be ready in time, and some were not. Similarly, U.S. planners must avoid reliance on systems still in development or testing. Access to intelligence, surveillance, and reconnaissance platforms in a contested environment must be assumed to be degraded and require redundancy.

Sequencing is equally critical. Improper sequencing during the Falklands campaign contributed to avoidable losses when assets were committed out of order. In INDOPACOM, failure to secure sea lines of communication or properly sequence collection platforms could result in catastrophic consequences. Integrated planning must impose multiple dilemmas on the adversary. The People's Liberation Army (PLA) has numerous physical and virtual flanks, and forcing defense across multiple fronts, as Argentina was compelled to do with Chile, can dilute combat power.

Prepare

Preparation is more than training; it is a theater-wide posture. The intelligence corps must prepare by focusing on several key areas.

Argentine prisoners of war are seen in Port Stanley on 16 June 1982. (Photo by Ken Griffiths via Wikimedia Commons)

Training must reflect the Pacific fight. Units should tailor training to regional terrain, adversary doctrine, and electromagnetic threats. Analysts must develop deep regional expertise, including detailed order of battle analysis of PLA ground, air, cyber, and space forces.

Joint and partner integration is essential. Intelligence preparation must include information-sharing agreements, multinational targeting processes, and common operating picture development to ensure interoperability.

The intelligence architecture must be built, exercised, and validated. Theater-level intelligence data layers that feed the common operating picture must be resilient, redundant, and capable of operating in denied environments.

Finally, sensors and relationships must be prepositioned. Early access to collection is critical in contested environments. Forward-deployed sensors and analysts embedded with partners will be indispensable, and strategic relationships must be established well before crisis.

The British succeeded in part due to a culture of readiness. U.S. forces in the Pacific must demonstrate the same commitment.

Execute

Execution encompasses the conduct of collection, analysis, and targeting. During the Falklands campaign, British forces employed deception and strategic messaging to confuse Argentine commanders. U.S. intelligence units must be prepared to do the same.

Intelligence must directly support dynamic targeting cycles to enable joint fires and rapid decision-making. Timely intelligence is essential for disrupting PLA kill chains.

Processes must remain resilient under contested communications. Analysts at every echelon must be capable of conducting fusion and dissemination even when isolated. Distributed analytic nodes and edge processing will be critical.

Order of battle tracking remains fundamental. Understanding PLA composition, disposition, and intent across all domains will define mission success. Intelligence units must track not only maneuver forces but also logistics, electronic warfare, cyber units, and irregular formations.

Execution in INDOPACOM will be unforgiving. There will be no sanctuary.

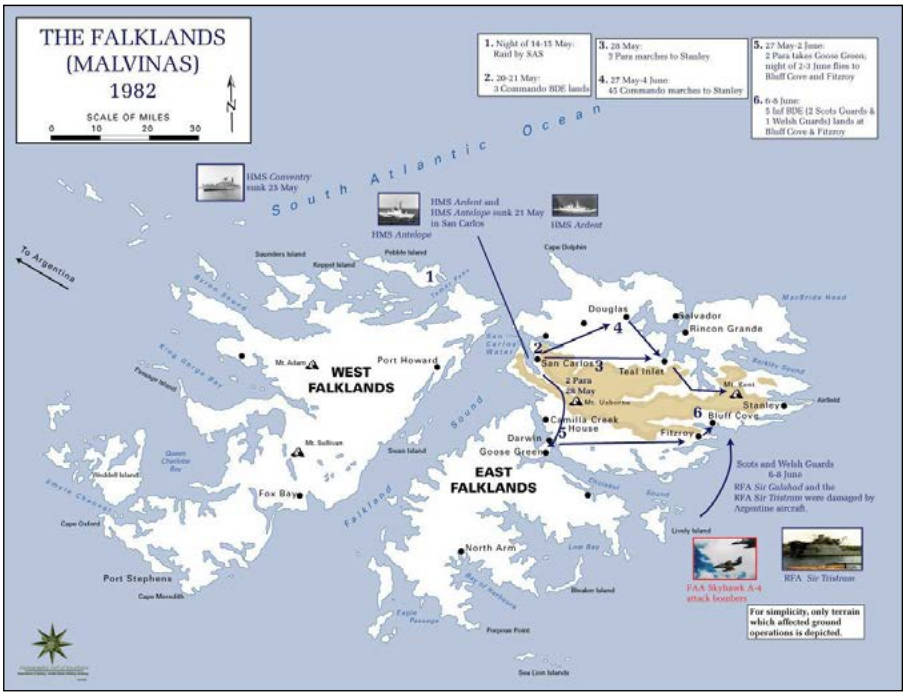
Assess

Continuous assessment is not an after-action report but an ongoing feedback loop that adjusts intelligence focus, validates collection, and refines targeting priorities.

During the Falklands conflict, British commanders adjusted their plans based on real-time intelligence assessments. U.S. intelligence leaders must similarly assess gaps in collection and understanding, validate assumptions in operational plans and tactics, identify indicators of adversary deception or maneuver, and integrate feedback from tactical echelons into theater-level decision-making.

Commanders rely on intelligence to refine their understanding of the environment. Assessment keeps commanders informed and forces alive.

Map 3 — Falklands Campaign, (Movements) 1982
(Map courtesy of U.S. Military Academy Department of History)



Conclusion

The Army plays a vital role in INDOPACOM. While the Pacific is often mistakenly viewed as a maritime theater, land forces provide the foundation for persistent presence, deterrence, and power projection. As demonstrated during World War II, land-based operations can determine the outcome of island campaigns.

The Falklands War offers a blueprint for how a smaller, determined force can succeed despite distance, delay, and surprise by leveraging intelligence, adaptability, and initiative. The U.S. Army intelligence enterprise must set the theater now through planning, preparation, execution, and continuous assessment to ensure that when crisis comes, the force is ready.

The Falklands should not be treated as a historical footnote — it should be a warning.

Notes

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RSLC, MFRCs, and Modernizing Recon

CPT PATRICK FULLAM

Since 1986, the Reconnaissance and Surveillance Leaders Course (RSLC), previously named the Long Range Surveillance Leaders Course (LRSLC), has trained and developed leaders from dismounted infantry elements, armored and Stryker cavalry formations, and special operations forces to face the complexities of recon missions. Over time, RSLC has remained ready to teach the next generation of leaders to strike deep and answer priority intelligence requirements (PIRs) as all kinds of recon formations have changed alongside the dynamic face of conflict. The Army recently established multi-functional reconnaissance companies (MFRCs) in mobile brigade combat teams (MBCTs) as the latest evolution in the recon world. In recent months, RSLC has worked diligently to develop MFRC doctrine and to modernize the course to best instruct these new formations.

In Fiscal Year 2026, the U.S. Army Infantry School provided MBCTs a unique opportunity by inviting them to unit-focused RSLC classes. This experiment saw great success for both the MFRCs and RSLC cadre during two recent iterations.

The participating units benefited by training with organic teams, enablers, and equipment, testing and training their own tactics, techniques, and procedures (TTPs). While the recon team learns to integrate these enablers into their own planning and operations, the unit's enabling assets, that wouldn't typically attend the course, learn the critical fundamentals of reconnaissance and security to better support — and patrol with — infantry and cavalry. The more

Students in the Reconnaissance and Surveillance Leaders Course conduct special patrol insertion/extraction system training on 18 September 2025 at Fort Benning, GA. (Photo by CPT Stephanie Snyder)

robust composition of the recon team with enablers better reflects the MFRC's capabilities and challenges, and it allows RSLC cadre to teach MFRC leaders more advanced topics like mission support site operations, the complexities of reconnaissance sustainment, and best methods of integration into supported echelons like brigade or battalion staffs, as an expansion to the standard program of instruction (POI).

Enabled by the rapid acquisition of updated and new equipment, RSLC expanded its POI, adding integration of electronic warfare (EW) and unmanned aerial systems (UAS), updated communications architecture, and refining situational training exercises (STX)/field training exercises (FTX) scenario updates. RSLC cadre also coordinated with the operational force and combat training centers (CTCs) to help redesign relevant course content, significantly expanding POI, and to inform TTP development.

A Soldier assigned to the Multi-Functional Reconnaissance Company, 2nd Brigade Combat Team, 101st Airborne Division (Air Assault), conducts reconnaissance during Operation Lethal Eagle 24.1 at Fort Campbell, KY, on 26 April 2024. (Photo by SGT Caleb Pautz)

Additionally, the Aviation Center of Excellence is working closely with RSLC cadre to incorporate UAS into the reconnaissance infrastructure. This includes incorporating and teaching new subjects like tactical considerations of launch, recovery, displacement, handover, and strike, as well as detection, concealment from, and reaction to UAS threats. RSLC cadre also integrated directly with cadre from the new 15X military occupational specialty (MOS) Advanced Individual Training (AIT) to further link drone assets with maneuver forces operating far forward of the forward line of own troops (FLOT). All the while, RSLC is gradually acquiring equipment on the MFRC modified table of organization and equipment (MTOE) and new experimental technologies to better enable training and testing, and to inform future MTOE, utilization, and doctrinal recommendations.

Both during and in between courses, the cadre of RSLC continue turning observations from classes and conversations with the force into recommended TTPs. Over time, these TTPs develop further into recommended doctrine. RSLC coordinates directly with the Directorate of Training and Doctrine to capture and provide key input on the right lessons learned from RSLC's training environments. In the short term, RSLC continues to provide perfect conditions for experimenting with recon formations, and RSLC leadership is working to compile data, recommendations, and lessons learned from all reconnaissance formations to better inform recommendations to the force. As we learn more, RSLC cadre are better able to experiment with equipment, technology, and techniques to advise the reconnaissance community from across the Department of War that relies on RSLC's instruction. We encourage any and all reconnaissance units to reach out with recommendations and questions.

As the face of warfare changes, both RSLC and the MFRCs face a challenge to keep pace and answer a common question: In enabling maneuver elements of battalions, brigades, and divisions, what is the right balance for recon to conduct strikes versus answering PIR? With tight partnerships between multidomain assets, operational units, and U.S. Army Transformation and Training Command (T2COM) elements, the future of reconnaissance remains bright, and the right balance of survivability, strike, and information collection will be struck. As always, units must ensure to focus heavily on the fundamentals of reconnaissance and think of innovative ways they relate to new situations. Through all this, RSLC will always remain the standard bearer for recon, brutally enforcing the basics learned through decades of conflict and applying those timeless lessons to new formations, assets, threats, and the battlefields of the future.

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Shaping the Deep Fight:

MFRC Lessons Learned at Saber Junction 25

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Since its inception in 1775, the U.S. Cavalry has served as the foundation of the U.S. Army's reconnaissance and security mission. In 2024, Headquarters, Department of the Army made the decision to restructure brigade combat teams (BCTs), which resulted in the inactivation of cavalry squadrons within mobile and Stryker BCTs. This spurred brigades to develop innovative solutions to the problem set traditionally tackled by their cavalry squadrons — conducting reconnaissance and security operations, enabling timely decision-making by the commander, and placing the higher command in a position of relative advantage. The multi-functional reconnaissance company (MFRC) emerged as the most widely adopted solution. These brigade-specific, purpose-built companies combine human sensors with a blend of new technologies while still adhering to the fundamentals of reconnaissance and security to fill the ground reconnaissance gap.

In April 2025, the 2nd Cavalry Regiment stood up the Regimental Observer Collection Troop (ROC-T) as its deep-area MFRC. Designed to operate forward of the main body to conduct reconnaissance and support targeting, the ROC-T embedded teams of traditional scouts with electronic warfare specialists, forward observers, and unmanned aerial systems. This combined-arms approach to reconnaissance aims to push sensors forward and support decentralized mission command by giving the leaders on the ground ready access to a wide array of sensing and strike capabilities. The ROC-T concept was validated at the Joint Multinational Readiness Center's Saber Junction 25 exercise as a viable model for future long-range reconnaissance and targeting MFRCs, but its execution exposed fundamental challenges in planning, synchronization, and sustainment that are essential to successful employment.

Planning: Reconnaissance Must Shape the Fight

Reconnaissance is not an inconsequential ancillary task. It is the mechanism by which the commander achieves decision advantage. The disciplined, early production and diligent updating of the collection plan turn collection into anticipation.[1] Planning reconnaissance operations has historically been the purview of cavalry squadron staff (primarily 19A officers and 19D NCOs) who, through career progression and formal courses — such as the Reconnaissance and Surveillance Leader Course, Scout Leader Course, and Cavalry Leader Course — develop the expertise required to plan for and execute these complex operations. The experience of planning without a cavalry squadron staff at Saber Junction 25 made it apparent that such institutional knowledge is critically lacking at battalion and brigade levels. The result was a maneuver plan that drove the information collection effort instead of being shaped by it. A well-designed information collection plan allows the commander and staff to anticipate risk, effectively match friendly assets to enemy capabilities, and refine the triggers for critical decision points. If a staff produces a tactical plan that drives the collection plan instead of being shaped by it, the result is a rigid maneuver plan vulnerable to desynchronization and deception, which can lead to missed opportunities and increased risk on the battlefield.

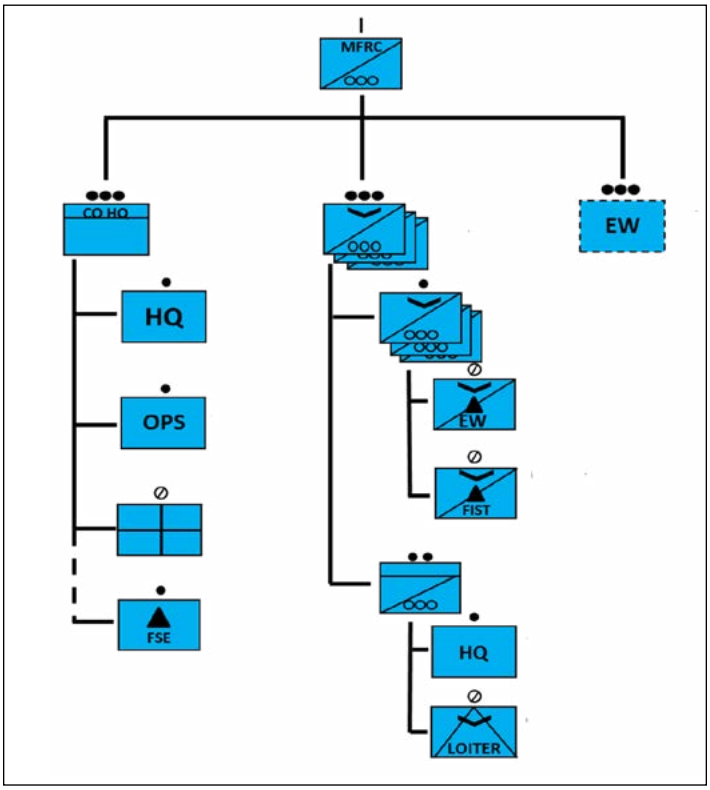


Figure 1 — ROC-T Task Organization
The initial ROC-T task organization included three scout platoons, an operations section, and headquarters section.

ROC-T identified six doctrinal products that staff must provide to the MFRC in a timely manner to enable successful multidomain reconnaissance and targeting operations:

- Commander's reconnaissance guidance (CRG)[2]
- Event template[3]
- Information collection matrix (ICM)[4]
- Decision support matrix (DSM)[5]
- Targeting synchronization matrix[6]
- Electromagnetic order of battle[7]

The CRG is broken into four elements: focus, tempo, engagement criteria, and disengagement criteria. These set the parameters for the reconnaissance operation and define the threshold for risk that the commander is willing to accept. The CRG informs the reconnaissance element on how they must plan the execution of their operation. In the absence of all other fighting products, a reconnaissance element can fight off the CRG alone.

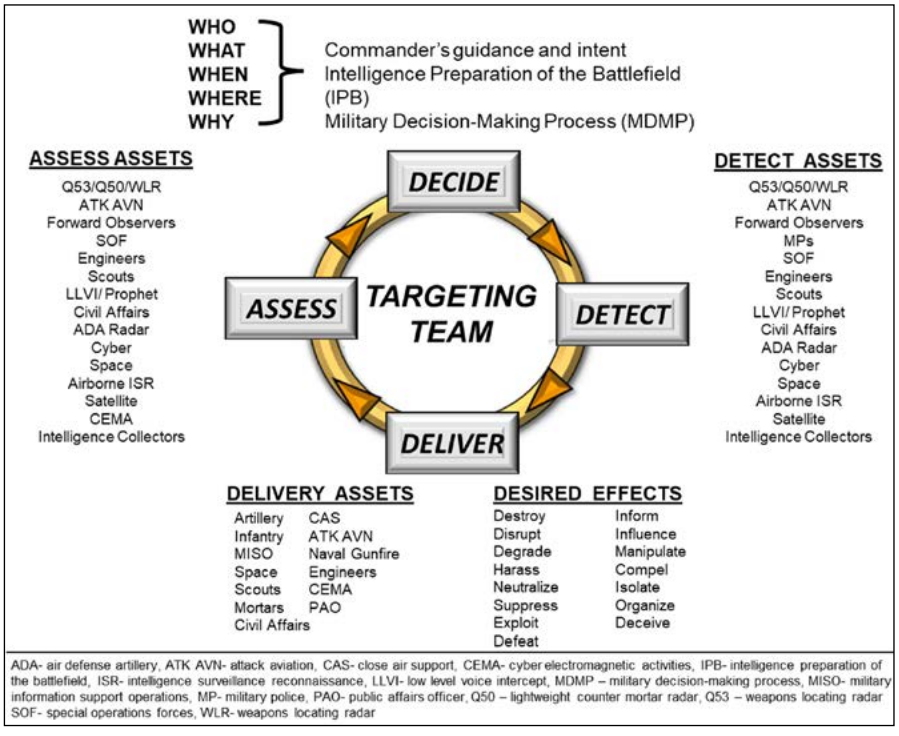
The event template maps likely enemy actions and timelines to provide the basis for planning collection strategies, synchronizing intelligence with friendly operations and developing the DSM and ICM.[8] The ICM is the product that translates priority intelligence requirements into discrete collection tasks and assigns the appropriate asset to each; it is in essence the directive tasking order for the reconnaissance unit. An effective ICM arrays the ground reconnaissance elements and collection assets significantly forward of maneuver battalions in time and space so the information collected can be integrated into the planning process before the commander allocates his forces. The DSM is what truly ties the maneuver plan to the information collection plan. The DSM ties decision points to named or targeted areas of interest, commander's critical information requirements, collection assets, and potential friendly response options.[9] The DSM codifies a commander's anticipated decision points in binary manner to facilitate rapid operational shifts without requiring input from the commander or staff primaries amid combat operations. An information collection effort that has been focused by the event template, prioritized against the DSM, and synchronized by the ICM allows commanders to see earlier, decide faster, and execute with confidence.

Electromagnetic sensing is one of the most powerful tools in the MFRC kit. It provides the capability to passively detect and locate electromagnetic signals of interest while remaining virtually undetectable. Embedding scout teams with electronic warfare specialists allows these sensors to be brought further forward, where they can sense the greatest density of electromagnetic signatures with the least amount of friendly interference. The electromagnetic order of battle is a product that provides information on key emitters to deconflict enemy frequencies from friendly and civilian ones. Arming the MFRC with this product allows the electronic warfare specialist to interpret what their system is detecting to provide better situational awareness and enable rapid decision-making.

Electromagnetic sensing is one of the most powerful tools in the MFRC kit. It provides the capability to passively detect and locate electromagnetic signals of interest while remaining virtually undetectable.

Targeting is the process of selecting and prioritizing targets and matching the appropriate response to them, considering operational requirements and capabilities.[10] Targeting is an iterative process that begins in the planning phase and integrates both ground forces and long-range shaping or enabling assets. A higher headquarters will employ its reconnaissance unit to inform and refine its targeting process. The staff can then synthesize the base information collection products with new information being reported from the reconnaissance effort to produce the target synchronization matrix. This product provides a common operating picture to synchronize the entire fires enterprise and gives the reconnaissance unit two critical products: the target list worksheet (TLWS) and the high-payoff target list (HPTL). The TLWS aligns delivery systems to specific targets. The HPTL prioritizes enemy systems, nodes, and formations whose defeat will most directly enable the success of an operation. Together, these products nest the ground reconnaissance effort with higher-echelon priorities to expedite the targeting

Figure 2 — Decide, Detect, Deliver, and Assess Methodology and Assets (Field Manual 3-60, Figure 2-3)



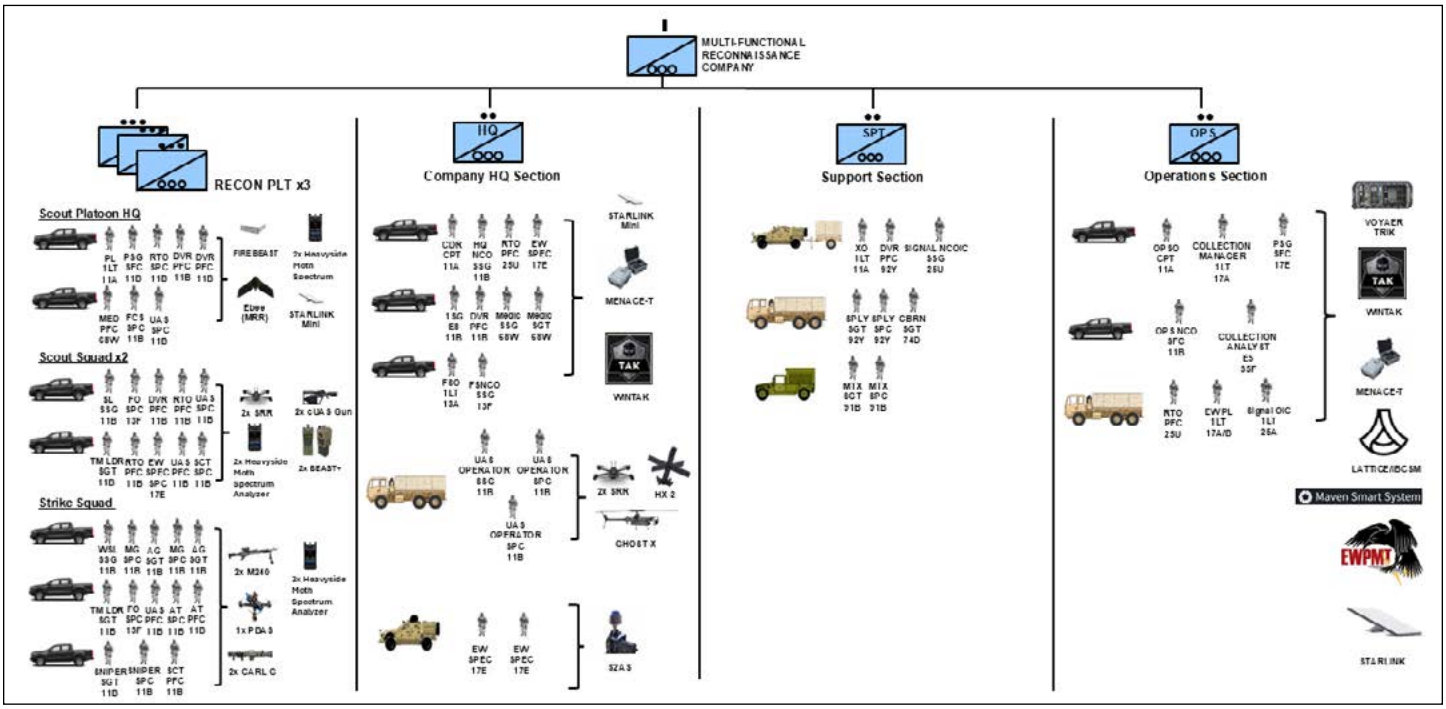


Figure 3 — Proposed Future MFRC Force Design

This design would preserve small, specialty integrated scout teams and an operations section while adding nonstandard vehicles, a signal section, and a weapons squad in each platoon.

kill-chain by informing the engagement criteria for precision systems.

Commanders and staff at all echelons must embrace reconnaissance and security doctrine and formal training to effectively employ their ground reconnaissance units. Reconnaissance by its very nature carries a high degree of risk and uncertainty that requires deliberate planning to mitigate. By equipping the reconnaissance unit with the right tools, it empowers them to exercise the autonomy necessary to develop the picture in an otherwise opaque operating environment. Early production of the CRG, the ICM, and the DSM will translate the commander's intent into a synchronized collection effort that directly supports operational planning and decision-making. Equipping MFRCs with an electromagnetic sensing capability and providing them with an electromagnetic order of battle is essential for supporting collection in a multidomain environment. Finally, providing them with the target synchronization matrix turns collection into kinetic action by reducing the sensor-to-shooter process to shape the fight earlier. Together these six products will equip MFRCs with the direction needed to inform adaptive maneuver planning and provide commanders at every echelon with the decision advantage needed to fight and win in complex environments.

Synchronization: Operations Management and Command Relationships

The ROC-T force design includes an operations section to enable parallel planning with higher headquarters, streamline information flow, reduce delays in the sensor-to-shooter process, and enhance command and control. The section includes an operations officer, operations NCO, collection manager, and electromagnetic warfare officer. Although the operations section was not fully manned for Saber Junction 25, the ROC-T's experience as an MFRC reporting directly to the brigade further reinforced the need for one. During initial planning and preparations, demands on the ROC-T commander were significant. In addition to executing internal troop leading procedures, the commander was frequently pulled away from the troop by the higher headquarters to plan, advise, rehearse, and attend numerous battle rhythm events that could consume 8-12 hours per day. This workload highlighted the necessity of an operations officer and staff to absorb responsibilities typically distributed across a battalion command team and staff.

During execution, the integration of ROC-T into information collection and maneuver plans became unsynchronized without a persistent liaison co-located with higher headquarters. This resulted in frequent last-minute taskings driven by changes to the maneuver plan rather than a synchronized collection effort. The problem was exacerbated further by ill-defined command relationships between ROC-T and specific warfighting functions. Guidance issued from the movement and maneuver, fires, and intelligence enterprises was often conflicting or exceeded the troop's ability to support.

The conclusion drawn from this experience is that the demands of parallel planning and maintaining continuous synchronization with the higher headquarters of a client force across multiple warfighting functions while also managing company-level operations cannot be sustained by the

commander, first sergeant, and executive officer alone. MFRCs should adopt a dual-leadership model, supported by a dedicated operations section, to enable the parallel planning and synchronization necessary to execute decentralized operations in complex environments.

Sustainment: Mobility, Coordination, and Extrication from Decisive Engagement

MFRCs cannot replace the cavalry squadrons' core security mission; the ROC-T's design favors low-signature reconnaissance over firepower. Similar ground reconnaissance units require a mobility platform that supports movement through restricted and severely restricted terrain, improves survivability via speed and low signature, protects against adverse weather conditions, and can outpace a client force. Additionally, the MFRC's long-range, extended duration mission requirements necessitate a mobility platform that includes organic power generation systems while preserving stealth and endurance. Given these requirements, non-standard vehicle options that preserve mobility and low-signature advantages while improving survivability and sustainment should be pursued for MFRCs regardless of their BCT type.

Coordinating between MFRCs operating in a noncontiguous battlespace and adjacent units can be challenging, depending on operational limitations and the complexity of the tactical situation. At Saber Junction 25, ROC-T was often required to coordinate with adjacent units for casualty evacuation. Synchronizing fires and movement to the casualty site proved to be significantly time-consuming and often exceeded acceptable timelines for real-world conditions. Rapid and reliable coordination was eventually achieved after platoon command posts were co-located with the command posts of adjacent units, enabling immediate communication and faster coordination for support. The experience underscored the importance of strategically positioning key leaders to leverage support relationships and highlighted the need for medics assigned to MFRCs to be certified to provide prolonged field care.

Direct-fire engagements at Saber Junction 25 forced the ROC-T to re-task organize its three identical scout platoons in favor of including a dedicated security/extraction capability to recover casualties or teams caught in decisive contact. The immediate standard operating procedure that emerged kept one platoon in reserve as a quick reaction and local security force at the troop command post. This approach proved limiting when scout teams were dispersed beyond the forward lines and exposed the quick reaction force to protracted compromise. The proposed solution going forward is to designate one squad per platoon as a weapons squad (equipped with two M240 teams, one AT4 team, and one sniper team) to act as a forward, platoon-level strike element. This model of having two scout squads — each embedded with scouts, electronic warfare specialists, and forward observers — and one weapons squad in each platoon preserves the MFRC's decentralized reconnaissance mission while giving platoons an immediate, organic capability to provide security and extricate engaged teams.

Conclusion

ROC-T's performance at Saber Junction 25 validated the potential of MFRC formations to conduct deep area reconnaissance and enable long-range targeting. Success depends on deliberate planning, continuous synchronization, and sustainable employment practices. Higher headquarters, which are now responsible for planning reconnaissance and security operations, should prioritize timely production of the tools necessary to support the MFRC information collection and targeting effort. While its final form is still being developed, the fundamentals of the MFRC's core reconnaissance mission remain the same. MFRCs face the challenge of evolving with new technology and experimenting with innovative solutions without losing sight of the institutional knowledge built on decades of experience. MFRCs must continue to share lessons learned to improve their design and refine their mission-essential tasks if they are to be the commander's eyes and ears on an increasingly complex battlefield.

Notes

[1] Field Manual (FM) 3-98, *Reconnaissance and Security Operations*, January 2023, 3-144.

[2] Ibid., Chapter 3.

[3] Army Techniques Publication (ATP) 2-01.3, *Intelligence Preparation of the Operational Environment*, March 2019, Chapter 6.

[4] ATP 2-01, *Collection Management*, August 2021, Chapter 6.

[5] Army Doctrine Publication (ADP) 5-0, *The Operations Process*, July 2019, 2-38.

[6] FM 3-60, *Army Targeting*, August 2023, D-11.

[7] FM 3-12, *Cyberspace and Electromagnetic Warfare Operations,* September 2025, I-7, 3-53, and 4-26.

[8] ATP 2-01.3, 6-71.

[9] ADP 5-0, 2-38.

[10] FM 3-98, 3-126.

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1SG Ryan Anderson recently served as 2CR's ROC-T first sergeant. He enlisted in 2005 and, upon completion of Basic Combat Training, Airborne School and the Ranger Indoctrination Program, was assigned to the 2nd Battalion, 75th Ranger Regiment. 1SG Anderson served 17 years in special operations before his assignment as the first sergeant for Fox Troop, 2nd Squadron, 2CR.

1LT Jonathan Hyun currently serves as 2CR's ROC-T electromagnetic warfare platoon leader. He commissioned through ROTC at Virginia Tech in May 2022. Upon completion of the Cyber Basic Officer Leader Course and Electromagnetic Warfare Qualification Course, he served as the electromagnetic warfare platoon leader in D Troop, Regimental Engineer Squadron, 2CR.

Institutional Options for Teaching and Training R&S

CPT FRANCIS AMBROGIO

"Big R&S" vs "little r&s"

To some degree, every Soldier executes some kind of reconnaissance and security (R&S). No matter the military occupational specialty (MOS) or branch, every Soldier must, at some point, lay in the prone and pull security or conduct a leader's recon to identify a suitable site for an objective rally point or a new command post.

This activity is not the same, however, as what is informally referred to as "Big R" reconnaissance and "Big S" security. Whereas "little r" reconnaissance is focused on enabling one's own element and understanding its immediate area and situation, "Big R" reconnaissance is a process of answering commander's critical information requirements (CCIRs) to provide situational understanding to the higher-level commander and headquarters in order to enable decision-making and shape the fight. Similarly, while "little s" security is about local survivability and tactical preparedness, "Big S" security is a matter of providing reaction time and maneuver space for larger and adjacent formations in order to protect the main body, and similarly, to enable decision-making. Fundamentally, both "Big R" and "Big S" drive operations by enabling timely decision-making to achieve positions of relative advantage.[1] This allows the higher-level unit to get inside the enemy's observe, orient, decide, act (OODA) loop and engage him at an optimal point in time and space." "Big R&S" is, at its core, an integrated information collection effort that enables situational understanding and drives operations.

Fundamentals of Reconnaissance	*Fundamentals of Security*
Ensure continuous reconnaissance.	Provide early and accurate warning.
Do not keep reconnaissance assets in reserve.	Provide reaction time and maneuver space.
Orient on the reconnaissance objective.	Orient on the protected force, area, or facility to be secured.
Report all required information rapidly and accurately.	Perform continuous reconnaissance.
Retain freedom of maneuver.	Maintain enemy contact.
Gain and maintain enemy contact.	
Develop the situation rapidly.	

Figure 1 — Reconnaissance/Security Fundamentals

The Army Structure (ARSTRUC) has changed in recent years, and in doing so, put the responsibility for "Big R&S" on different organizations than it historically has. However, the fundamentals of reconnaissance and security remain the same, and the Army can leverage the institutional education systems already established for training these skills in reconnaissance and security leaders, namely the Cavalry Leader's Course (CLC), the Scout Leader Course (SLC), and the Reconnaissance and Surveillance Leaders Course (RSLC).

From Squadrons to MFRCs

Traditionally, "Big R&S" was the responsibility of cavalry formations. While force structure has evolved over the

Soldiers assigned to the 3rd Mobile Brigade, 25th Infantry Division conduct reconnaissance and security operations as part of the Joint Pacific Readiness Center Exportable Exercise in Laur, Philippines, on 13 May 2026. (Photo by SGT Taylor Gray)

decades, cavalry formations could be found at echelon as armored cavalry regiments supporting corps, division cavalry squadrons supporting divisions, and cavalry squadrons supporting brigade combat teams. The Army's force structure recognized the fact that for large formations to win, they had to be able to see the enemy first, gain and maintain contact, retain freedom of maneuver, achieve positions of relative advantage, and then engage on the most advantageous terms possible. Cavalry units were a critical part of units' reconnaissance and security efforts as one piece of a larger, integrated information collection (IC) plan.

The latest ARSTRUC reduced the number of cavalry formations in the Army. The 2nd and 3rd Cavalry Regiments are Stryker brigade combat teams (SBCTs) that retain the cavalry name as a nod to tradition; division cavalry no longer exists; and, most recently, only armored brigade combat teams (ABCTs) retain cavalry squadrons. Corps and divisions do not have ground reconnaissance formations supporting them, and mobile brigade combat teams (MBCTs) and SBCTs only possess multi-purpose reconnaissance companies, with one at the brigade level and one in each infantry battalion. In MBCTs, these are standardized as multi-functional reconnaissance companies (MFRCs); however, they are not yet fully formed or standardized in SBCTs, so we will use MFRC here as a stand-in for this evolving type of formation that is currently comprised of a mélange of unmanned aerial systems (UAS), mortars, and infantry scouts.

MFRCs are novel formations that boast some of the most cutting-edge tools on the battlefield, and the Army may even develop larger formations along similar lines. Although they are not traditional cavalry reconnaissance formations, they are a new and critical component of units' integrated "Big R&S" efforts, which are still essential for operations at scale, since commanders and staffs will always need situational understanding of the battlefield.

Reconnaissance: "A State of Mind"

MFRCs are infantry organizations. They fall under infantry-centric MBCTs and SBCTs and are led and manned mainly by 11-series personnel. They also possess 15-series Soldiers, who bring technical expertise as drone operators. While all of these personnel possess significant knowledge and experience, they generally do not have backgrounds in "Big R&S." Focus on that particular mission set has always been the domain of 19Ds (cavalry scouts) and 19As (Armor officers), who do not and will not man MFRCs.

The Infantry and the Cavalry are different — otherwise the Army would not have different MOSs and training courses, not to mention different traditions and cultures. Yet there is significant overlap between their equipment, manning, and sometimes, mission sets. As one example of this, before the dissolution of motorized cavalry troops and mounted infantry weapons companies, these organizations were nearly identical on paper, fielding essentially the same vehicles and weapons (and associated optics) as well as a roughly equivalent numbers of Soldiers. The main difference

The Infantry and the Cavalry are different — otherwise the Army would not have different MOSs and training courses, not to mention different traditions and cultures. Yet there is significant overlap between their equipment, manning, and sometimes, mission sets.

was in the units' mission-essential task lists (METLs) and the training and experiential backgrounds of their personnel.

In my current role at the Joint Multinational Readiness Center (JMRC), I once coached a mounted weapons company that had been assigned a reconnaissance role. During our mid-exercise after action review, my team and I highlighted a saying I had heard from a former squadron commander: "Cav is not a branch; it's a state of mind."

To expand on that, we discussed how while all Soldiers always shoot, move, and communicate, as Infantrymen they were trained to highlight "shoot" and "move," but in their assigned reconnaissance role, they needed to shift their approach to highlighting "move" and "communicate." The company had the people and the tools it needed; what it had to adjust was its "state of mind," since its role was to collect information and answer CCIRs — that is, shape the fight and enable their higher headquarters and sister units — rather than to close with and destroy the enemy.

There was no fundamental reason that this infantry formation or any other could not conduct "Big R&S" operations, given their equipment, manning, and capabilities. What hindered them from being as effective as they could have been, however, was the training and experience that would have helped them to approach the problem set with a "Big R&S" mindset.

Existing Institutional Options for Training R&S

The Army distinguishes between the roles of the Infantry (who close with and destroy the enemy) and the Cavalry (who serve as the eyes and ears of the force). Infantrymen and Cavalrymen go through separate One Station Unit Training (OSUT), generally serve in different units, and exist in organizations with their own distinct and venerable cultures. As technology and battlefield dynamics continue to evolve, the maneuver Soldier of tomorrow may look like some kind of hybrid of the two, but as things stand, the Army is saddling certain infantry units and Infantrymen with the Cavalry's traditional role.

Changing Infantry OSUT or Infantry Basic Officer Leader Course (IBOLC) to include reconnaissance and security as core competencies is neither feasible nor necessary, given the existing high demands of these training courses and the fact that the majority of Infantrymen will serve in standard infantry formations. Our Infantrymen must be the best at

being the Infantry, and the Army's current training progression for 11-series personnel reflects that. The "main thing" must remain the main thing.

Those assigned to MFRCs and leaders who will serve on their higher staffs, however, need training to prepare them to conduct "Big R&S" operations. The Army has courses designed exactly for this purpose — CLC and SLC (formerly the Army Reconnaissance Course [ARC]), based in the U.S. Army Armor School's 316th Cavalry Brigade, and RSLC, run by the U.S. Army Infantry School's Airborne and Ranger Training Brigade.

All three courses train leaders in "Big R&S" and do so in a unique and challenging manner. CLC is a classroom course for company and battalion-level leaders that focuses on the military decision-making process (MDMP), integrating company and battalion R&S efforts into the brigade IC plan, and troop leading procedures (TLPs) for reconnaissance, using intensive MDMP repetitions and tactical decision exercises (TDEs) to develop expertise. Students receive the C6 additional skills identifier (ASI) upon graduation. SLC is a combined classroom and field course geared for platoon and section-level leaders. It has a heavy focus on R&S doctrine, and it trains advanced R&S skills, advanced land navigation, TLPs for reconnaissance, and operations orders (OPORDs). Graduates are awarded the R7 ASI upon completion. RSLC focuses on mastering the fundamentals of reconnaissance and security in the context of dismounted operations, and it drills down into specific TTPs for reconnaissance, including advanced land navigation, multiple communications methods, and advanced reporting based on specific CCIRs. Like the other courses, it also awards an ASI (6B). These courses are designed to take individuals already trained in standard maneuver and to build on that to form them into reconnaissance and security leaders.

These courses function on the Experiential Learning Model (ELM) and were developed using the Outcome-Based Training and Education (OBTE) methodology, which was further developed into a methodology called Adaptive Soldier and Leader Training and Education (ASLT-E).[2] Students are expected to study in advance of their classroom lessons and practical exercises, and the learning occurs by doing, whether on the sand table, in the field, in a repetition of MDMP, or in a TDE. The courses are designed for students to learn via discovery and experience. As an example of this, CLC instructors serve more as facilitators than as *instructors*, and they are notorious for answering questions with, "What does doctrine say?" and engaging students on the meaning of the doctrine before coaching them to potential solutions.

This educational approach differs significantly from the Army's normal "task-conditions-standard" model in which a specific task, taught to be executed in a specific manner, is executed under a specific set of conditions. This method is input-based — it teaches "the what." These courses' learning model, on the other hand, takes a radically different approach. They demand self-study, force experiential learning, and push students to figure out their ways to successful outcomes and solutions that are in accordance with doctrinal principles, rather than a prescribed answer. Instead of requiring an identical "what" answer from each student, they guide students to develop workable answers that are true to the "why."[3]

The frustrating "What does doctrine say?" response from the instructors and the coaching to discovery learning that comes with it force students to develop critical thinking skills and the ability to translate doctrinal principles into concrete plans and actions to answer CCIRs and achieve the commander's intent in a dynamic, ambiguous operational environment. While this approach is more open-ended and seemingly less straightforward than a standard curriculum and teaching methodology, it is highly structured, expertly taught, and firmly grounded in doctrine and fundamentals.[4]

Soldiers with a Multi-Functional Reconnaissance Company in the 3rd Mobile Brigade Combat Team, 25th Infantry Division plot coordinates to launch a drone on 6 November 2025 during training at Schofield Barracks, HI. (Photo by SGT Johanna Pullum)

RSLC stands out from the other two courses in its specific focus on building expertise in dismounted operations in highly restrictive terrain. Students must demonstrate knowledge of the required tactics, techniques, and procedures (TTPs) for the reconnaissance fight while in austere conditions. For some time, RSLC focused more on the TTPs for mastery of "little r&s" to the exclusion of "Big R&S." While it still trains

practical TTPs and expects students to execute them to standard, it has recently revamped its plan of instruction (POI) to return to its roots of training the "unbounded" problem set and mindset necessary for conducting "Big R&S" operations. These updates to RSLC's POI and return to its roots make it a critical component of preparing reconnaissance units to win the "Big R&S" fight at echelon.

Embracing Ambiguity and Conquering the Unknown

All three courses fervently emphasize operating in ambiguity, which is crucial during "Big R&S" operations. The nature of the job is that much, if not most, information is *un*known. Information preparation of the operational environment (IPOE) must be as imaginative as it is thorough, and — particularly in CLC, with is emphasis on MDMP — students are held to an exacting standard when analyzing the operational environment and assessing potential enemy courses of action. Mission analysis and IPOE that think through terrain, infrastructure, and society in detail and that comprehensively understand the relative effects of all warfighting functions in time and space are absolute necessities, both to prepare for operating in the unknown and for determining where named areas of interest actually need to be. Units and staffs need this depth and quality of analysis to optimize their efforts, react to changing circumstances in accordance with the commander's intent, and collect the critical information that paints the picture commanders need for timely and effective decision-making.

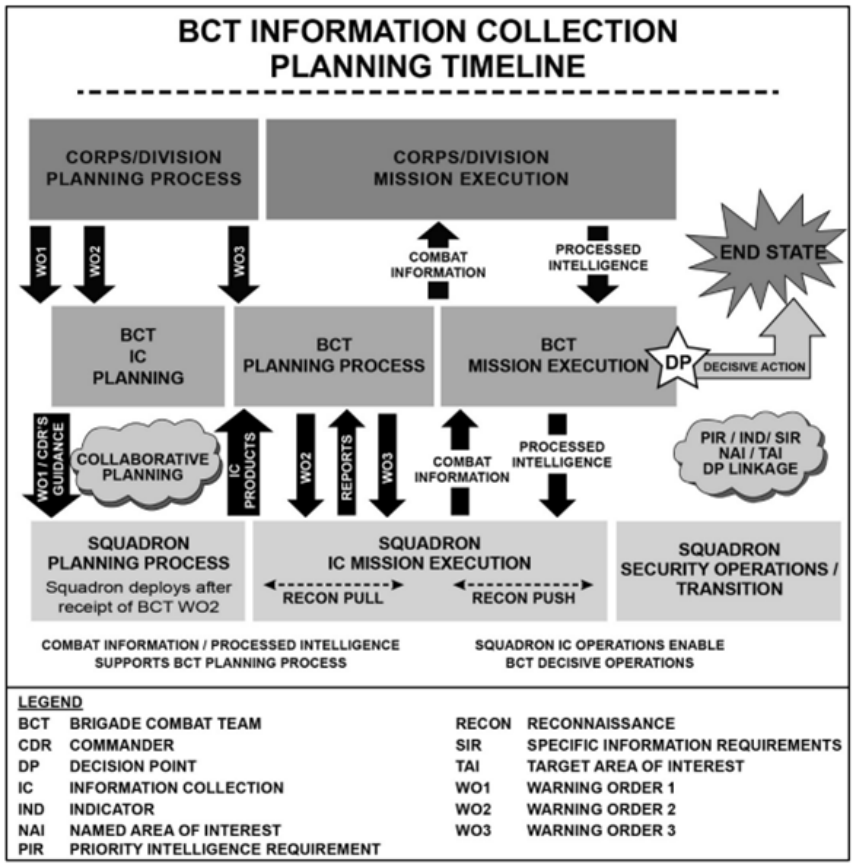

Figure 2 — BCT Information Collection Timeline (Field Manual 3-98)

Doctrinally, cavalry squadrons deploy when brigade staffs publish warning order (WARNORD) 2. MFRCs, while currently lacking any such codified standard, must plan and execute operations similarly with respect to their parent battalion and brigade staffs' planning timelines. The CCIRs that reconnaissance formations answer clarify the operational environment in which their parent organization and sister units are planning to and will fight. By nature of this operational timeline, reconnaissance leaders must be able to make sound analysis based on minimal information, confidently operate in a sea of ambiguity, and be agile enough to achieve the commander's intent and answer CCIRs in an environment with high degrees of variability. This is, on a basic level, quite distinct from standard maneuver operations.

Standard maneuver operations tend to be closed-loop problems sets — a unit actions on a discrete objective, generally slices said objective into sectors, synchronizes in detail according to a directed timeline, and then consolidates gains once complete. This is not to say that maneuver missions are without any uncertainty or unpredictability — but generally, they are planned and executed based on "*knowns*."

On the other hand, "Big R&S" operations tend to be unbounded problem sets. That is, the "knowns" of a maneuver operation began as "*unknowns*," or CCIRs, that were answered by a reconnaissance element. While there certainly are specific questions to be answered, operational timelines to follow, and synchronizations to be orchestrated, the lesser amount of information and potential for significant changes make these operations fundamentally open-ended in a way that standard maneuver operations are not.

The open-ended nature of information collection and the multiple possibilities that may arise from the various answers to CCIRs, as well as the need to plan and execute with minimal information, make these operations categorically different. Leaders must, at times, plan and fight off of little more than commander's intent and commander's reconnaissance or security guidance. Rather than destruction of the enemy or seizure of a piece of key terrain, their goals can be more variable, such as confirming or denying information about terrain, infrastructure, a threat, or society. The prescribed reconnaissance tempo — whether stealthy or forceful, rapid or deliberate — changes not the literal speed of the operation, but the scope of information to be collected and the acceptable signature while doing so. Operations are driven by "latest time information of value" (LTIOV) — that is, how the reconnaissance formation's information collection is driving the commander's decisions and the rest of the organization's actions in time and space. Additionally, R&S operations have unique considerations for the planning of fires, logistics, and

casualty evacuation, which all three courses address at their respective echelons of focus. Leaders' and units' approach to "Big R&S" must be different from how they would approach a standard mission, and teaching the mindset that facilitates this is precisely what distinguishes CLC, SLC, and RSLC from other training courses.

The Cavalry Leader's Course, Scout Leader Course, and Reconnaissance and Surveillance Leaders Course are excellent institutional options with which to achieve this outcome. These courses teach not only the doctrine and best practices for reconnaissance and security operations but force students to develop the agile mindset and critical-thinking skills that these missions demand. Leaders should see the three of them as complementary tools for training, educating, and preparing their organizations at echelon. Each course has a different emphasis, all of which are necessary to a reconnaissance organization. CLC — with its focus on MDMP, the reconnaissance unit's integration into higher echelons' IC efforts, and use of TDEs — is a course that every company commander and staff primary should attend. SLC, with its mix of heavy doctrinal learning, challenging land navigation, and open-ended field problems, is ideal for platoon leaders and section leaders. RSLC is a crucible that develops mastery of fundamentals applied in challenging dismounted scenarios, making it a highly beneficial course for any reconnaissance Soldier, especially the junior leaders who will be leading teams of scouts and drone operators. Finally, RSLC may also be a great opportunity for the 15-series Soldiers who bring technical knowledge to MFRCs but who do not possess the same background in patrolling and dismounted operations as their 11-series comrades — in a reconnaissance unit, every Soldier is a scout.

Conclusion

As the tools with which we fight evolve, so must the way we fight and the way we structure our force. Reconnaissance formations are one example where such a structural evolution has already occurred. MFRCs and any similar units that may be developed in the future present a tremendous opportunity to conduct reconnaissance and security with cutting-edge tools and to continue to develop those tools and associated TTPs. Although MFRCs are novel formations, the effects they provide — and the Army's need for experts in reconnaissance and security — remain unchanged.

Successful completion of these courses — appropriate to position and echelon — should be the expectation for leaders involved in the reconnaissance and security fight, whether in an MFRC or in key positions on battalion or brigade staffs. Reconnaissance and security leaders require knowledge, both doctrinal and practical, as well as a particular mindset that thrives when tackling ambiguous, open-ended problem sets and acts decisively to meet the commander's intent and illuminate the battlefield when faced with friction and the fog of war. CLC, SLC, and RSLC exist to develop these competencies and attributes in the Army's R&S leaders.

Failure to train leaders in "Big R&S" will limit MFRCs to being "islands of misfit toys" — organizations of dedicated Soldiers with highly capable tools, but whose great potential goes under-utilized. They will certainly support local actions and shorten kill chains in the close fight, but without a "Big R&S" approach, they will not effectively contribute to integrated information collection efforts that enable timely decision-making and facilitate victory in large-scale combat operations.

Notes

[1] FM 3-98, *Reconnaissance and Security Operations*, January 2023, Chapter 1.

[2] MSG Jacob Stockdill, "The Army Reconnaissance Course," *ARMOR* (October-December 2015): 77-78, https://d34w7g4gy10iej.cloudfront.net/pubs/pdf_33497.pdf.

[3] SSG Mary E. Ferguson, "Outcome-Based Training and Education: Targeting the Intangibles," *NCO Journal* (Fall 2008): 14, https://www.armyupress.army.mil/Portals/7/nco-journal/images/2011-and-Prior/Education/Outcome-Based-Training-and-Education.pdf.

[4] MAJ Robert Craig Perry and LTC (Retired) Kevin McEnery, "Army Reconnaissance Course: Defining the Aim Point for Reconnaissance Leader Training," *ARMOR* (July-August 2009): 14-20, https://d34w7g4gy10iej.cloudfront.net/pubs/pdf_33604.pdf.

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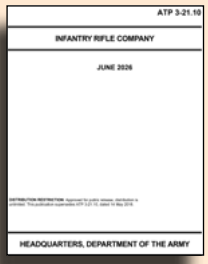
Updated Infantry Rifle Company ATP Released

Army Techniques Publication (ATP) 3-21.10, *Infantry Rifle Company*, provides doctrine for the Infantry rifle company. This publication describes how the infantry rifle company, as part of a combined arms team within an environment characterized by large-scale ground combat, conducts combat operations against a peer threat. ATP 3-21.10 describes relationships, organizational roles and functions, capabilities and limitations, and responsibilities within the infantry rifle company. Techniques — non-prescriptive ways or methods used to perform missions, functions, or tasks — are discussed in this publication and are intended to be used as a guide. This publication supersedes ATP 3-21.10, 14 May 2018. and standard operating procedures for the Infantry rifle company. Find it online at:

https://armypubs.army.mil/epubs/DR_pubs/DR_a/ARN46667-ATP_3-21.10-000-WEB-1.pdf



Deep Reconnaissance:

The Need for Long-Range Reconnaissance and Surveillance in LSCO

1SG KYLE C. WARD

The U.S. Army's current emphasis on technologically advanced assets, while important, risks creating significant vulnerabilities in future conflicts. A robust human intelligence capability is indispensable, particularly in contested environments. Throughout military history, the Army has repeatedly recognized the value of long-range surveillance (LRS) only to see these capabilities diminished over time. However, the increasing complexity of modern warfare demands a renewed commitment to LRS. Traditional intelligence-gathering methods are becoming less effective due to the proliferation of electronic warfare tactics and the inherent challenges of operating in contested spaces. LRS offers unique advantages — deep reconnaissance beyond the range of standard sensors and, crucially, human-centered intelligence — providing vital situational awareness in difficult terrain. Integrating these capabilities with advancing technologies and specialized training will empower commanders to effectively navigate near-peer conflicts.

The Evolving Landscape of Intelligence, Surveillance, and Reconnaissance (ISR)

For much of the late 20th and early 21st centuries, military operations increasingly relied on intelligence, surveillance, and reconnaissance (ISR) assets. This was particularly true during counterinsurgency (COIN) operations in Iraq and Afghanistan, where persistent surveillance and rapid target identification were paramount. Unmanned aerial vehicles (UAVs) revolutionized the COIN environment. Platforms like the Reaper and Predator, equipped with advanced sensor systems enhanced battlefield awareness and enabled precise strikes against adversaries.[1] This technological leap forward undeniably improved operational effectiveness.

A Historical Foundation: From Rogers' Rangers to the Alamo Scouts

The principles of modern LRS have historical roots stretching back centuries. During the French and Indian War, Major Robert Rogers' Rangers exemplified the value of accurate intelligence, operating as small, independent teams tasked with observation, reporting, and disruption behind enemy lines.[2] Their success hinged on skills like tracking, camouflage, and wilderness survival while emphasizing stealth and observation. Though the Ranger model evolved, the need for specialized scouting

A forward observer with the Long Range Surveillance Section, 81st Stryker Brigade Combat Team, Washington National Guard, observes a vehicle during a training exercise at Yakima Training Center, WA, on 20 July 2025. (Photo by SSG Alec Dionne)

continued, with the U.S. Army employing skilled trackers, often Native Americans, during the 19th century Indian Wars.[3] A dedicated long-range reconnaissance capability re-emerged during World War II with the establishment of the Alamo Scouts in 1944, who provided crucial pre-landing intelligence on enemy defenses and terrain in the Pacific, demonstrating the operational impact of specialized long-range reconnaissance patrol (LRRP) units.[4]

Formalizing the Concept in Korea and Vietnam

The challenging terrain of the Korean War (1950-1953) exposed the limitations of conventional reconnaissance, creating a need for more adaptable intelligence-gathering methods. This spurred experimentation with LRRP concepts, which ultimately led to the establishment of formal LRRP units during the Vietnam War (1955-1975).[5] LRRP teams of five to six Soldiers (not special forces), infiltrated enemy territory to collect critical intelligence on troop movements, base locations, and supply routes, such as the Ho Chi Minh Trail, relying on stealth, observation, and secure communication to avoid engagement.[6]

The Shift to Large-Scale Combat Operations (LSCO) and Emerging Threats

However, the operational environment is changing. The rise of peer and near-peer adversaries necessitates a departure from the ISR paradigms developed during COIN operations. These adversaries possess advanced capabilities to degrade traditional ISR systems, diminishing their effectiveness.[7] The United States is now entering a new phase of conflict, where adversaries are increasingly contesting our traditional advantages in areas like air, land, sea, space, cyberspace, and the electromagnetic spectrum. This shift demands a reevaluation of traditional ISR methodologies and a move toward more resilient and adaptable systems. While technology-centric ISR proved effective in past conflicts, it now faces limitations in the face of advanced electronic warfare and the complexities of modern battlefields.

The Vulnerability of Traditional ISR

Modern military operations are increasingly vulnerable to degraded ISR capabilities due to the advanced electronic warfare capabilities of near-peer adversaries. These adversaries can disrupt, degrade, and deny the effectiveness of conventional ISR systems operating within contested electromagnetic spectrums. As noted in a March 2025 *Live Science* article, traditional ISR systems face significant vulnerabilities, which include susceptibility to interference like jamming and spoofing, as well as cyberattacks.[8] These can degrade performance and create intelligence gaps — particularly in challenging environments like contested airspace or adverse weather. The rapidly changing nature of modern conflict also demands flexibility, often requiring ISR assets to be re-tasked mid-mission. While necessary, this can leave other areas temporarily unmonitored. Finally, the potential for capture of these sophisticated systems by an adversary represents a serious risk of sensitive technology compromise, as recently highlighted during a deployment to the National Training Center. As a first sergeant with 1st Battalion, 16th Infantry Regiment, our reliance on a reconnaissance troop for early warning and situational understanding severely impacted an operation when that troop was unexpectedly repurposed, creating a critical intelligence void. The battalion struggled to accurately assess enemy composition, disposition, and strength until we positioned a scout platoon forward. The most impactful intelligence did not come from technological sensors but from several scout observation posts positioned forward of the reconnaissance squadron; human reports significantly affected decision-making within the companies and at the battalion level. This experience underscored a vital lesson: We can no longer rely solely on technology to determine the enemy's course of action.

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Addressing the Gap: The Importance of Human Intelligence

Conventional sensors and platforms often lack the necessary reach and persistence to provide adequate situational awareness in the vast, dynamic, and dispersed operational environments characteristic of near-peer conflict. The depth and breadth of modern battlefields demand ISR capabilities that can penetrate deeply into contested areas and provide continuous, wide-area surveillance. Traditional platforms often lack the range, endurance, and survivability to meet these demands, leaving forces vulnerable to enemy maneuver and deception. Reliance on purely technical intelligence in electronically contested or denied environments creates a critical gap in situational awareness, particularly regarding enemy composition, disposition, intent, and subtle activities. Advances in sensor technology, widespread air defense networks, and competition for control of the electromagnetic spectrum limit U.S. operational freedom.[9] The focus on technology-centric ISR has often overlooked the importance of human observation and contextual understanding. In LSCO, where the battlespace is dynamic and unpredictable, human intelligence provides crucial insights that technology alone cannot replicate.

Strategic Integration and Re-establishment of LRS Teams

To counter the degradation of traditional ISR capabilities, strategically integrating long-range surveillance and reconnaissance personnel is essential. This approach acknowledges the limitations of solely technology-driven

ISR in contested environments and leverages the adaptability and contextual understanding of human expertise. Augmenting, and replacing conventional systems with LRS capabilities when necessary, supports critical situational awareness and extends operational reach. In his 2018 article "Deep Maneuver," Jack D. Kem defined deep operations as "extending operations in time, space, and purpose to gain an advantage over enemy forces and capabilities before adversaries can use their capabilities against friendly forces."[10] The inherent flexibility of LRS teams provides a critical advantage in rapidly evolving operational environments. Re-establishing LRS teams proficient in infiltration and advanced communication is crucial for conducting deep reconnaissance in LSCO.[11] These teams provide real-time, precise intelligence that surpasses the limitations of standard sensors, extending operational reach beyond traditional sensor ranges.

Prioritizing Human-Centric Intelligence

Prioritizing human-centric intelligence gathering and utilizing the unique abilities of LRS personnel is paramount for maintaining a decisive advantage in modern warfare. This approach addresses the vulnerabilities exposed by advanced electronic warfare, emphasizing the irreplaceable value of human observation and analysis in challenging environments. Reintegrating LRS teams, with their capacity for deep reconnaissance and real-time intelligence delivery, ensures persistent and adaptable intelligence crucial for effective decision-making in contested environments. This human-centric approach fosters a deeper understanding of the battlespace beyond the scope of technological solutions.

Conclusion

The evolution of military operations, particularly the shift to LSCO, underscores the critical need for adaptable and resilient ISR capabilities. Historically, reliance on electro-centric ISR provided advantages, but the emergence of near-peer adversaries with advanced electronic warfare capabilities exposed the vulnerabilities of sole technology-driven approaches. The current challenge lies in the degradation of traditional ISR systems within contested electromagnetic spectrums, the limited reach and persistence of conventional sensors, and the gap in situational awareness created by overreliance on technical intelligence. To address these challenges, a strategic shift towards integrating human expertise into the ISR architecture is essential. Re-establishing long-range surveillance and reconnaissance teams, capable of conducting deep reconnaissance and providing real-time intelligence, offers a crucial solution. By prioritizing human-centric intelligence gathering, forces can overcome the limitations of technology-centric ISR and maintain a decisive advantage in modern warfare. Reintegrating LRS teams, with their specialized skills and adaptability, ensures persistent and actionable intelligence, crucial for effective decision-making in the dynamic and contested environments of contemporary military operations. This approach recognizes the irreplaceable value of human observation and analysis, enhancing situational awareness and operational effectiveness in the face of evolving threats.

Notes

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Leveraging Space-Based ISR within MBCTs

"All Operations are Multidomain Operations" — FM 3-0

CPT JONATHAN FEARING

The U.S. Army's transition to lighter, more agile mobile brigade combat teams (MBCTs) necessitates using national spaced-based intelligence, surveillance, and reconnaissance (ISR). The deactivation of traditional cavalry squadrons and the removal of the Military Intelligence company (MICO) along with organic collection assets like RQ-7 Shadows and Ravens, creates a gap in tactical intelligence collection. The multi-functional reconnaissance company (MFRC) was created to fill the gap, but it alone does not provide enough intelligence and reporting capabilities necessary for an MBCT.

In August 2024, the 2nd MBCT, 101st Airborne Division fielded the intelligence support package (ISP) from the new 302nd Intelligence and Electronic Warfare (IEW) Battalion. This article argues that space-based ISR, when effectively integrated and leveraged, can mitigate the loss of the cavalry squadron from infantry brigade combat teams (IBCTs), providing better situational awareness and improved targeting.

Joint Readiness Training Center (JRTC)

2/101 MBCT's JRTC 24-10 rotation highlighted the challenges faced by an MBCT with the absence of organic collection capabilities. The ISP became the primary conduit for informing the MBCT. The MFRC was tasked to go deep and stay hidden. The commander needed fast and actionable intelligence to make decisions and take action on targeting priorities. The MFRC was too slow to get into position to provide the needed intelligence, but the ISP quickly filled the gap with a steady stream of reporting.

Capability Mismatch

Doctrinally, a cavalry squadron covers 1,000-3,000 meters of frontage, per Field Manual 17-10. Armed with a variety of small unmanned aerial systems (sUAS), first-person view (FPV) drones, scouts, and electronic warfare (EW) tools, the MFRC in theory would need to cover a similar distance with a quarter of the manning and equipment. The company with four platoons is too small to fully cover the frontage and depth that an MBCT must fight.

During JRTC 24-10 the MFRC provided only 28 reports to the brigade over the course of the 10-day force on force. With access to space-based ISR and national means, the ISP provided more than 1,900 reports. How is this possible?

Eyes of God

The United States has the most robust and effective intelligence system the world has ever seen. Space-based ISR is extremely accessible even to an MBCT. MBCTs must lean into these capabilities. The United States has unmatched ability to sense and see globally with more than 247 military satellites in orbit. Space-based ISR offers several key advantages in addressing the MBCT's lack of reconnaissance. Satellites provide wide-area surveillance, persistent coverage, and all-weather capabilities that are unmatched by traditional reconnaissance.

The ability to monitor troop movements, identify key targets, and assess battle damage remotely from anywhere in the world reduces the need for risky manned missions by the MFRC and provides a truly continuous stream of intelligence. The battlespace is too large and dangerous to risk unique reconnaissance capabilities. The war of Russian aggression on Ukraine has vividly demonstrated the power of space-based ISR in providing critical intelligence to forces on the ground. Commercial satellite imagery from companies like Maxar and Planet Labs has been instrumental in documenting Russian military activity and tracking troop movements, providing Ukrainian forces with valuable real-time early warning and situational awareness.

The ISP has access to these commercial systems and unique U.S. military satellites. It can view an entire division's area of operations hundreds of kilometers and beyond with ease, providing real-time updates. The only things needed are an unclassified, secret, and top-secret computer networks with decent bandwidth.

In comparison, the MFRC is limited by its short-range UAS and can only see within a few kilometers. It is also vulnerable to the enemy — its Soldiers get tired and hungry, and its batteries die. The ISP can be located dozens of kilometers from the front and provide a steady stream of intelligence to the MBCT, providing an updated common operating picture and supporting targeting. The only real requirement for ISPs is bandwidth and internet connectivity.

For the MFRC to truly be most effective, it must be tipped and cued by space-based ISR from the ISP. The ISP can see the entire area of operations and then direct the scalpel of the MFRC onto the needed locations and targets.

Figure 1 — Commercial Synthetic Aperture Radar Image of Russian Air Defense Systems (Image courtesy of Defence Intelligence of Ukraine)

Space-Based Capabilities

The MBCT benefits significantly from leveraging national-level intelligence collection capabilities through the ISP. Synthetic Aperture Radar (SAR) provides high-resolution imagery, even in adverse weather conditions, foliage, terrain, and at night. This imagery can be rapidly exploited by the ISP and shared with MBCT. Similarly, space-based electro-optical (EO) and infrared (IR) sensors detect enemy movement and activity and provide clear images of entire areas of operation. The ISP can rapidly process and exploit single images that cover an entire area of operations in a single image.

U.S. national signals intelligence (SIGINT) collection is a globally distributed, multi-layered operation involving a complex network of assets and partnerships. It's not a single entity, but rather a collaborative effort primarily led by the National Security Agency (NSA), with significant contributions from other intelligence agencies and the Department of War. Collection occurs across the electromagnetic spectrum — encompassing communications, electronic signals, and foreign instrumentation signals — and leverages a variety of platforms and methods that covers the world.

The cornerstone of global SIGINT collection is a network of geographically positioned collection sites. These range from extensive, well-known facilities like Menwith Hill (UK), Misawa (Japan), and Pine Gap (Australia) — often operating under bilateral agreements with host nations — to smaller, more discreet sites strategically located around the world. These sites house powerful antennas and processing capabilities, intercepting and analyzing a vast stream of communications and electronic signals. Furthermore, the U.S. maintains a robust constellation of satellites dedicated to SIGINT collection. These satellites can intercept communications from virtually anywhere on Earth. The ISP can tie into these data streams with near real-time access. Rapidly enabling fast and tactical decisions for the MBCT without relying on higher echelons for access and collection.

The ISP's ability to pull all these national assets easily and provide the data to the MBCT is critical. The breadth and depth of information provided by national SAR, EO/IR, and SIGINT significantly enhance a tactical commander's ability to achieve situational understanding, make informed decisions, and ultimately, succeed on the battlefield.

While space-based ISR cannot wholly replace the organic reconnaissance capabilities of a cavalry squadron, it can provide a significant augmentation and enhancement. By leveraging the unique advantages of space-based assets, the MBCT can tip and cue the MFRC, maintain a high level of situational awareness, improve targeting accuracy, and reduce the risk to personnel.

In conclusion, the loss of the cavalry squadron in modernized BCTs presents a significant challenge to the Army's intelligence capabilities. However, by leveraging the power of space-based ISR, the Army can mitigate this loss and provide the MBCT with enhanced situational awareness, improved targeting, and a more resilient intelligence architecture. The conflict in Ukraine has demonstrated the potential of space-based ISR in modern warfare, and the Army must embrace this technology to maintain its competitive edge in the future.

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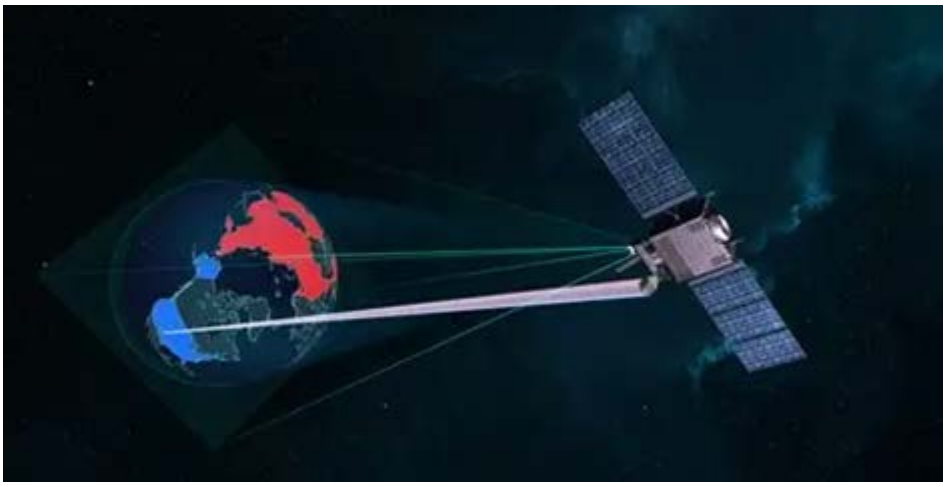
Figure 2 — Example of Overhead Persistent Infrared Satellite Coverage (Image courtesy of Northrop Grumman)



How a Strike Platoon Fights: Early Observations

CPT MATTHEW STANFORD
1LT CAMMACK SHEPLER

In March 2025, Comanche Troop, 1st Squadron, 2nd Cavalry Regiment, reorganized to incorporate a "strike" platoon that was equipped and manned to wage unmanned aerial systems (UAS) and multidomain operations at the tactical level. Observations of the Russo-Ukrainian War — specifically the emergence of a new evolution of warfare — drove the development of the strike platoon concept. Four key realities created the conditions that drove Comanche to experiment with a strike-platoon structure:

1. Comanche, along with other troops, experienced manning constraints;

2. The proximity to the Russo-Ukrainian War provided a glimpse into the current requirements of modern warfare;

3. Rapid technological advancement and the proliferation of UAS capabilities effectively mitigated prior shortfalls; and

4. Transformation in contact provided us with the flexibility to "tinker" with and right-size formations for the ever-evolving foe on today's large-scale combat operations (LSCO) battlefield.

These observations drove Comanche Troop's ability to transition into an organization capable of competing on the battlefield of 2025 and beyond.

Organization and Structure

Despite its designation as a rifle platoon, the Strike Platoon operates with the minimum personnel required for mission capability while maximizing combat effectiveness.

To improve its effectiveness, Comanche Troop redistributed personnel to round out two fully manned line platoons, while maintaining a third platoon (Strike Platoon) with more diverse capabilities, which included mortars, small UAS (sUAS), and eventually counter-sUAS. In just 10 days, the unit finalized its task organization, received approval to reorganize, and became operational. During this period, the team reorganized property, confirmed accountability, and adjusted manning assignments to ensure Strike Platoon had the right personnel to begin operations.

Other significant material changes in the troop included moving Infantry Carrier Vehicle-Dragoons (ICV-D) from the Strike Platoon to the line platoons to offer them more direct fire capability, as well as adding fire support and a command post so the platoon could operate in a more decentralized manner. With this structure, the Strike Platoon consisted of one organic sUAS squad, one tactical control (TACON) mortar squad, two organic Infantry Carrier Vehicle-Javelins (ICV-J), two TACON Mortar Carrier Vehicles (MCVs), one organic ICV (Command Post), and one TACON Fire Support Vehicle (FSV) (see Figure 1).

One squad leader and eight UAS operators make up the UAS squad, which is divided into two teams capable of independent operations. Each team combines intelligence, surveillance, and reconnaissance (ISR) assets with strike capabilities, focusing on Purpose-Built Attritable Systems (PBAS). The unit leadership chose operators who demonstrated both interest and aptitude in UAS operations.

Every trooper in the Strike Platoon team carries an individual weapon. The sUAS operator carries an M4 as his primary weapon, along with a special-purpose backpack that both protects and transports the drone, ground control station (GCS), goggles, and long-range antenna. The sUAS sustainer carries an M4 with the M320 attached, an additional drone, and spare parts to conduct field-expedient repairs. Lastly, the sUAS security team carries an M249 to provide suppression to enable the element to break contact if necessary. The intent is to never place the Strike teams in a position where they are decisively engaged with the enemy.

A first-person view drone operator flies in support of platoon live-fire exercise at Grafenwoehr Training Area in Germany. (Photos courtesy of authors)

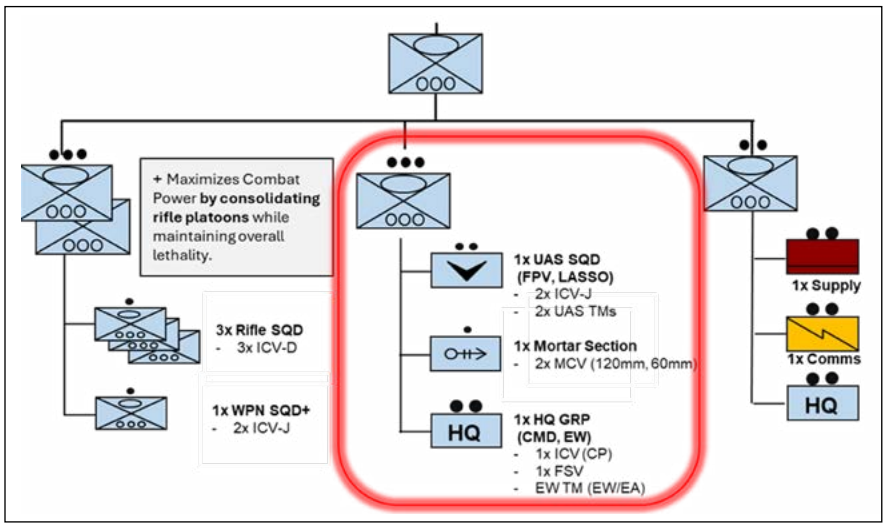


Figure 1 — Troop Task Organization

The 2CR UAS platoon leads UAS operator training, which consists of three days of classroom instruction, one week of flight simulator training, and two weeks of live flight time. UAS operators also spend an additional week learning to construct UAS systems using carbon fiber or 3D-printed parts.

Strike Platoon's organic equipment involves multiple PBAS first-person view (FPV) and ISR drones. To operate the PBAS FPV drones, an operator must have a GCS, viewing goggles or laptop, and an extended-range antenna to provide more stand-off from the target. The troop operates two drones to support infantry maneuvers and conduct FPV strikes. The PBAS FPV provides another precision strike asset, especially when paired with ISR UAS. FPV drones should be considered ammunition, not property book equipment, because their 3D-printed construction makes them fragile and designed for single use.

Strike Platoon Purpose

Strike Platoon's mission is to conduct offensive and defensive UAS strikes against enemy forces to allow the troop greater freedom of maneuver. The platoon is critical to setting conditions through effects-based operations as well as enabling troop- and squadron-level maneuver.

Deliberate Attack Battle Drill

After 45 days of initial reorganization and training, Strike Platoon participated in its first live-training scenario in Hohenfels, Germany. In late March 2025, we observed two Soldiers (a SGT and PFC) operating as a UAS opposing force (OPFOR) attached to Cherokee Company, 1st Battalion, 4th Infantry Regiment, against cadets from the Royal Military Academy Sandhurst (RMAS), who were conducting an area defense of an urban area. Three UAS conducted a coordinated attack on the defensive positions, identifying machine-gun positions and the company command post (CP) on rooftops and then detonating or dropping simulated munitions to destroy them.

Observers on the lane assessed a mass casualty (MASCAL) event and rendered the CP and the machine guns out of commission. This eliminated the company's command-and-control capabilities and reduced its coverage of high-speed avenues of approach. Three drones decisively engaged the entire company of cadets, effectively keeping them out of the direct firefight. All elements were either firing into the sky or seeking overhead shelter. The UAS attack lasted 15 minutes, immediately followed by indirect fire. Following the end of the fire mission, the dismounts from Cherokee attacked the village from positions on the hill in the north. After the UAS attack severely weakened the cadets, the infantry quickly overwhelmed them.

A PFC and SGT, leveraging their training from the 2CR UAS program completed two and a half weeks prior, executed this coordinated and complex attack. These results confirmed that UAS training can rapidly produce capable and lethal FPV operators.

In addition to building the fundamental building blocks of combined arms maneuver between sUAS and ground forces, Comanche Troop developed a UAS battle drill for an attack on a fixed site. The battle drill consists of seven steps:

Figure 2 — Strike Platoon Tasks and Purposes

Strike PLT in the Offense

Task	Purpose	Asset
Shaping operations in depth	Defeat / disrupt ENY CATK	PBAS CUAS EW TRP Mortars Loitering Munitions
Coordination of pre-assault fires / effects	Conditions setting for main body attack	PBAS EW TRP Mortars Loitering Munitions
Counter-reconnaissance	Disrupt ENY observation of TRP / SQDN main body	ICV-D MAAWS Javelin
Short Range Reconnaissance	Identify avenues of approach / obstacles / ENY disposition	PBAS SkyDio

Strike PLT in the Defense

Task	Purpose	Asset
Counter-UAS in depth	Identify / (T) defeat ENY UAS in depth	Emergent CUAS
Targeting and fires integration	Multidomain disruption in depth	PBAS EW TRP Mortars Loitering Munitions
Counter-reconnaissance	Disrupt ENY observation of TRP / SQDN main body	ICV-D MAAWS Javelin
Short Range Reconnaissance	Identify enemy avenues of approach / provide early warning	PBAS SkyDio

1) The attack begins with UAS observation and identification of the enemy position and targets for indirect fire (IDF), as well as providing information to refine the plan of the attack.

2) The UAS then observes fires on identified enemy positions using the troop-organic MCVs.

3) Achieving IDF suppression will trigger an attack employing FPV drones and munitions-dropper drones. Transitioning from IDF to UAS suppression will cause fires to cease, and the mounted and dismounted support-by-fire elements will move into position, maximizing the effect of echeloned fires. UAS suppression allows maneuver elements to be much closer to the enemy due to limited risk estimate distances (REDs).

4) The support-by-fire (SBF) elements begin suppression, and the UAS operators will continue to attack until the commander orders them to cease.

5) On order, the assault element will initiate fire and begin its attack from its last covered and concealed position.

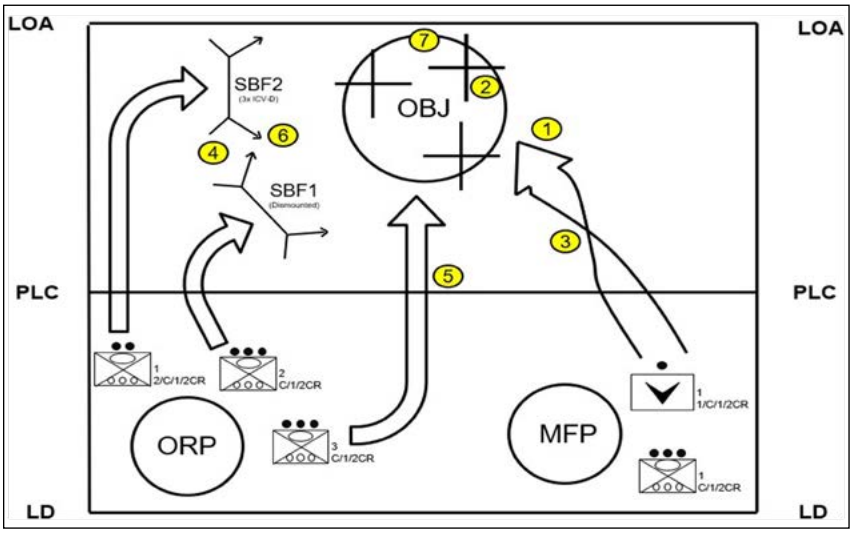
6) As the attack continues, the SBF elements shift or lift fires, and then the assault element secures the objective until they achieve the desired effect on enemy forces or terrain.

7) The UAS assets will continue to monitor the battlespace to identify and strike enemy forces to degrade enemy counterattack. (See Figure 3)

Strike Platoon in Reconnaissance and Movements to Contact

In early April 2025, Comanche Troop provided OPFOR support for 4th Squadron, 2CR's situational training exercise (STX) at the Hohenfels Training Area. Comanche Troop teamed up with Quickstrike Troop from 4/2CR to create an sUAS-enabled battalion tactical group (BTG) reconnaissance company for this exercise. Their mission during this period was simple: Conduct reconnaissance to identify seams in 4/2CR's screen.

Figure 3 — UAS-Supported Attack Battle Drill



For this mission, Strike Platoon split into two teams, attaching them to the other line platoons in the troop and equipping them with two 3D-printed FPV drones for the OPFOR mission. Each line platoon received one PBAS FPV drone and a team of operators.

From the starting point (SP) to vehicle drop-off (VDO), the mission resembled a standard movement to contact. Limited functionality, flight time, and durability prevented us from using the PBAS FPV drones for reconnaissance. Once the Strike teams detected possible enemy contact, they launched their FPV drones to identify the threat and strike if engagement criteria allowed.

The engagement criteria for the Strike teams were a force no larger than one enemy Stryker and no more than one enemy squad. Engagement criteria were determined by the limited PBAS FPV magazine depth, and at the time, only one FPV sUAS was available per the two rifle platoons. With more drones, a greater number of vehicles could be engaged simultaneously.

During the initial day of OPFOR operations, Comanche Troop eliminated two enemy Strykers with FPV drones. During both engagements, they employed FPV UAS to initiate a hasty platoon attack. On the platoon leader's order, the UAS conducted a strike immediately following fire from the SBF and assault elements. The FPV strike would typically force the dismounts out of the vehicle, resulting in their elimination by direct fire weapons systems. Both engagements began with the Comanche elements undetected and from a range of no more than 150 meters.

Engine noise and a lack of light easily revealed enemy positions. With Skydio drones, Strike could have confirmed enemy identification and location before committing the platoon, even without meeting the standard engagement criteria.

This portion of the exercise validated the theory that FPV drones are an incredibly effective initiation method for an attack against a mounted enemy and provide an element with enhanced capabilities for identifying and seeking out targets of opportunity. Many enemy forces were unsure of how to react to UAS contact and would hesitate, allowing the OPFOR platoons the critical initiative and element of surprise to quickly eliminate them.

Strike Platoon in the Defense

Comanche Troop conducted platoon-level defensive STX, the so-called "dig or die," which stressed the importance of constructing dug-in fighting positions to increase survivability in today's LSCO environment. The two rifle platoons constructed defensive positions following a block of instruction on engagement area development. Strike Platoon split up its FPV sUAS teams and attached them to each rifle platoon. As an attached team, they were employed to conduct

An FPV operator flies in support of a gun position during a squad LFX.

reconnaissance of dead space and avenues of approach. During the engagement area development process, platoons also identified where they might theoretically pre-position drones during the defense to observe the enemy or take off quickly to conduct a strike against an approaching enemy force. In this context, Strike elements could position an FPV UAS along a road, camouflaged like an improvised explosive device, and strike as soon as they identify an enemy force meeting the engagement criteria.

Following the STX, each rifle platoon conducted one attack and one defense iteration against the other. Each engagement featured attacking and defending forces equipped with an FPV drone. In the defense, the FPV strikes were devastating to the offense. The defending UAS operators quickly identified and eliminated offensive SBF positions within seconds of initiation. FPV strikes quickly eliminated bunched-up squads maneuvering toward the breach point. UAS covered the gap between the risk estimate distance limit of artillery and the range of direct fire weapons systems in the defense so that attacking forces would have been completely combat ineffective before even reaching the breach.

In the offense against a dug-in enemy, the FPV drones were equally lethal. We conducted FPV strikes at the drones' maximum range on identified enemy key weapon system positions and mounted battle positions, severely limiting the defense's firepower before they could engage with direct-fire weapons. FPV drones could then pursue and strike the defending force as it retrograded to subsequent battle positions.

Way Forward

Comanche Troop will remain focused on four primary objectives:

1) Retraining our lessons learned during platoon STX and live-fire exercise (LFX) while sharing our knowledge across a wide audience;

2) Validate Strike Platoon effects-based maneuver during troop LFX and Saber Junction 25;

3) Expand the magazine depth of PBAS and S/MRR to maximize capability and lethality; and

4) Continue to develop over-the-horizon capability and hardware for PBAS FPV.

Strike Platoon will use lessons learned from its troop STX to refine its tactics, techniques, and procedures for these upcoming events. During the planning process, Strike leadership will create detailed engagement criteria for the FPV operators and identify optimal locations to pre-position drones or operators. Until then, the most important priority for Strike will be resourcing. While still lethal, Strike was far from performing at its full potential as an asset for the troop. Strike Platoon needs more drones, more repair parts, and more tools. Strike has competent UAS operators and builders who need the proper resources to operate optimally.

Conclusion

The use of the Strike Platoon in the offense allows the troop greater flexibility in the echelonment of fires and suppression of the enemy before dismounted assault. The Royal Military Academy and STX exercises proved that a small, autonomous force of UAS operators could suppress a much larger element and cause devastating battlefield effects with organic capabilities and equipment.

Exercising mission command and empowering junior leaders to operate decentralized are crucial for the effectiveness of the Strike concept. It is important to ensure subordinates understand the commander's intent, engagement criteria, high-value targets, desired end state, etc., for Strike Platoon to be able to operate decentralized in an electronic warfare and communications-contested environment. FPV operators often operate alone or in small teams away from direct platoon leadership. Most FPV engagements are optimal only within a brief window of enemy vulnerability, and waiting for authorization from higher leadership would spoil the opportunity. FPV operators need detailed, clear, and specific engagement criteria so that they can exercise the disciplined initiative to conduct strikes within their platoon leader's or commander's intent. The elements of mission command become even more critical when a junior enlisted UAS operator is wielding one of the platoon's most casualty-producing assets outside of direct leadership or oversight. FPV drones fundamentally change the nature of combined arms warfare and give a significant advantage to small, stealthy, disciplined teams over mounted formations. Leadership needs to equip these small teams with the right information to maximize their effectiveness against the enemy.

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Calling Infantry Captains!

LTC JAMES I. VANSANDT III

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Development: You will command a company of 15-25 permanent cadre. Think about the great culture you can build for these mid-career leaders! If you focus on development, you can prepare your lieutenants for the Captains Career Course or continued service in other branches, prepare your drill sergeants to return to the force, push your cadre to attend career-enhancing schools across Fort Benning, and shape training plans based on the lessons learned from your experience. You'll also get the chance to attend battalion, brigade, and Maneuver Center of Excellence (MCoE)-level leadership professional development (LPD) events or schools that will enhance your development.

Training management: You own the training. While drill sergeants serve as the primary instructors, you will become an expert in the 8-Step Training Model, Digital Training Management System, Field Manual 7-0, leader certification, training resource management, and deploying your unit to the field. Over an 18-week cycle, you'll get more repetitions at each of these tasks than most commanders do in a full year. Sure, you won't conduct collective training, but you'll master the fundamentals.

Administrative expertise: Initial training depends on systems and processes. You will sharpen your ability to manage time, personnel, and tasks. You'll still tackle readiness metrics, meet Command Supply Discipline Program standards, get leaders to NCO Education System courses, conduct counseling, administer Uniform Code of Military Justice (UCMJ), and handle all responsibilities of company-level leadership. The difference? You inherit functioning systems with cadre trained to operate within them — giving you a recipe for success when you return to an operational unit.

Shape the future: In a year, you will turn 400-500 civilians into Infantry Soldiers. In 10 years, some of those trainees will become drill sergeants, and in 20, some will become sergeants major. You might train the next Alvin York, Audie Murphy, or Michael Weimer. You'll also shape the current drill sergeants who will soon serve as platoon sergeants in the

Infantry Soldiers-in-training conduct their Cross Rifles Ceremony following their culminating field training exercise on 13 January 2023 at Fort Benning, GA. (Photo by Patrick A. Albright)

operational force. Your influence on trainees and cadre will create a lasting legacy. This is a serious responsibility with a long-term impact.

Experimentation and transformation: While we focus on helping trainees master the basics, we recognize the evolving character of warfare seen in the Middle East and Eastern Europe. We expose trainees to modern battlefield technology — not to make them experts in unmanned aerial systems or degraded comms, but to give them a foundational understanding of the modern battlefield. We also partner with the Maneuver Battle Lab for rapid solutions to emerging problems and keep open lines of communication to share challenges and innovations.

Branch Transfer: Depending on your Voluntary Transfer Incentive Program target branch, some may require successful company command prior to application. A command billet at I-OSUT may better align with your career timing and goals while still providing you with valuable leadership and management experience. If you're considering a branch transfer, I-OSUT offers predictability for self-development. Many of our cadre are preparing for the Law School Admission Test (LSAT) or Graduate Record Examination (GRE), while others are already enrolled in graduate school. It's not easy — but it's doable with the structure I-OSUT provides.

Married Army Couples Program (MACP): Fort Benning offers a high concentration of jobs for mid-career leaders at MCoE, the Infantry School, Armor School, Martin Army Community Hospital, and garrison or tenant units. Many dual-military couples choose Fort Benning for the job availability, which allows Army families to cohabitate, enjoy stability, and remain competitive in their careers.

Stability: While no Army assignment escapes last-minute taskings, I-OSUT offers far more predictability than operational units. You'll know when you're in the field, when you're in garrison, when you need to surge, and when to throttle back. You'll know when to send cadre to schools and when to schedule leave. You won't face 0300 emergency deployment readiness exercises or monthlong combat training center rotations. Most nights, you'll sleep in your own bed — and you'll know well in advance when you won't.

Reattack the Ranger Course: The Ranger Course isn't a silver bullet for leadership challenges — but it can be a valuable developmental experience. If you want to become Ranger qualified, we will get you in the course. If you need time to prepare, our Holistic Health and Fitness strength and conditioning coach will build a tailored program for you. If you're injured, we have a physical therapist and nutritionist on staff to support your recovery. If you're already Ranger-qualified and want to attend other schools to further your career, those opportunities exist as well.

Myths

Career ending: In 1994, then-CPT (now retired GEN) Gary Brito commanded an OSUT company and later wrote about the final field training exercise in *Infantry*. He did okay — and you can too. Career progression now includes opt-in/opt-out board options, Voluntary Transfer Incentive Program windows, broadening assignments, and more flexibility. This isn't a career killer — it's a chance to sharpen your leadership and management skills.

Not the "real" Army: Wrong. We're still in the Army — and we do Army things: PT, planning, inventories, leader development, transformation, and innovation. In many ways, you'll do more Army stuff here than in operational assignments. You'll ruck, camo up, walk situational training exercise lanes, and oversee training regularly. Want to shoot your rifle? You have 21 days to do that during each 18-week cycle. Want to throw grenades, refresh combat lifesaver skills, or certify on combatives? We do all of those in every cycle.

Less challenging: Your challenges will be different, not easier or harder, just different. You'll face the challenge of transforming civilians into Infantry Soldiers, and that mission comes with its own complexities. Most of us could walk into an operational unit and get to work. But here, you'll need to master the systems, policies, and regulations unique to the U.S. Army Transformation and Training Command environment. You may not maneuver platoons on a company-sized objective — but you will drive one of the most critical transformations in a Soldier's career.

Less important: Nonsense. You produce the next generation of Infantry Soldiers. Your output goes directly to operational units around the world. While you may not deploy them yourself, you provide the force that others rely on to deploy and win. Without this mission, the operational forces couldn't accomplish theirs.

Take a knee: Not here. We're busy — just like every other leadership position in the Army. This job isn't for those looking to coast. It demands that commanders show up daily with commitment, compassion, competence, and character. You'll be smoked — but in a good way. You'll work long hours but will have a tight-knit and highly capable team that builds resilience through shared hardship and purpose.

Closing

Fort Benning is our foundational home. It's where we mastered infantry tactics, secured various badges, learned to lead in harsh conditions, and honed our planning skills. It's where training management, leader development, and doctrinal transformation happen in real time, and you can continue your development as an Army leader by joining the cadre of I-OSUT. Of course, every unit needs good leaders — we are no different. If that's you — and you want a meaningful challenge — come to Sand Hill and help shape the future of the Infantry as an I-OSUT company commander.

LTC James I. Vansandt III currently commands 2nd Battalion, 47th Infantry Regiment, 197th Infantry Brigade, Fort Benning, GA. He has served in airborne, Stryker, and mechanized brigade combat teams. LTC Vansandt earned degrees from Freed-Hardeman University and Université Catholique de Louvain and is currently working towards a degree from Tufts University.

Combat Water Survival:
Critical Training for Large-Scale Combat Operations

CPT TRAVIS B. SMITH
1LT SAMUEL K. WISHON

As the U.S. Army shifts its focus from the sand and rocks of the Middle East and Central Asia to the complex geography of the Indo-Pacific region and Europe, units must overcome natural obstacles, such as rivers and lakes, to provide mobility for troops and equipment across enemy-defended or otherwise inaccessible terrain. A contested wet-gap crossing is one of the toughest operations a unit can conduct and is resource-intensive due to the distinct types of units involved. Due to the complexity of wet-gap crossings, at times, a division may be the most appropriate echelon to command and control this type of operation.[1] The purpose of this article is to prepare maneuver companies for their role in enabling this complex operation. By building combat water survival readiness and cross-training with engineer units, maneuver companies will improve their preparedness to navigate complex terrain and enhance their flexibility to maintain momentum to close with and destroy enemy forces.

Blackhorse Company, 2nd Battalion, 3rd Infantry Regiment, 1-2 Stryker Brigade Combat Team (SBCT), recently served as part of the Korea Rotational Force in the Republic of Korea. While participating in the annual Exercise Freedom Shield, we learned the importance of building a combined arms mindset through cross-training with engineer units. Three critical areas stick out that could apply to other units, whether conducting home-station training or serving as a rotational force in the Pacific or Europe:

1. Incorporate combat water survival training
2. Cross-train with engineers.
3. Execute rehearsals and final preparation

Learning from Experience — Crossing the Imjin

As part of Exercise Freedom Shield 25 in March 2025, a significant military operation unfolded in Yeoncheon-gun, South Korea, involving the Republic of Korea Army (ROKA) V Corps, 11th Engineer Battalion, 814th Multi-Role Bridge Company (MRBC), and Blackhorse Company, 2-3 IN. The 11th Engineer Battalion tasked Blackhorse Company to clear the far side gap of the Imjin River, necessitating extensive preparation and specialized training. By securing the far side of the river, we would facilitate the 814th MRBC's emplacement of their improved ribbon bridge (IRB), allowing Strykers and ROKA K2 tanks to cross the river efficiently. For the MRBC to be successful, our company needed to clear the ridge along the far side of the gap of all opposing forces in order to neutralize all direct and indirect threats that could hold the crossing site at risk.

The assault began with the emplacement of one Stryker Mortar Carrier Vehicle variant equipped with its 120mm mortar system. Blackhorse Company's mortar section established its indirect fire systems, which allowed our 3rd Platoon to establish a support-by-fire location east of the crossing point and provide direct fire suppression for 1st Platoon's crossing and maneuver along the ridge line.

The MRBC provided a Zodiac platoon to ferry each rifle platoon across the river. This phase was the trickiest part of the operation and where we focused most of our training. Once the dismounts crossed the river and completed their clearance

U.S. Army Soldiers aboard a Zodiac establish security during a wet-gap crossing as part of Freedom Shield 25 in the Republic of Korea on 20 March 2025. (Photo by PFC Christopher Antwine)

of the far-side terrain, the MRBC began its rapid movement to deploy the IRB and establish the crossing point.

For our Soldiers, by this point in the operation, we had completed the most nerve-racking phase. The complexity of this operation underscored the importance of rigorous training events that preceded the actual crossing of the wet gap. This article will explore the training activities that prepared Soldiers for this vital mission, highlighting the importance of combat water survival, Zodiac, and Stryker egress training. It will also advocate for the continuation of these training programs to enhance readiness for future similar operations.

Soldiers in Blackhorse Company, 2nd Battalion, 3rd Infantry Regiment, warm up in the pool prior to executing combat water survival training. (Photo by CPT Travis Smith)

Training for wet-gap crossings is not merely about swimming or basic amphibious maneuvers; it encapsulates a comprehensive approach that integrates various skill sets essential for mission success. These skill sets ensure that Soldiers are prepared for unpredictable challenges when confronted with water obstacles in combat scenarios. The training regimen leading up to the operation at the Imjin River involved several key training components — combat water survival, Zodiac boat operations, and Stryker egress — as well as numerous rehearsals with the engineers before execution. Each of these contributed to improving Soldiers' capabilities and confidence.

Combat Water Survival Training (CWST)

According to a Red Cross survey, more than half of all Americans (54 percent) either cannot swim or lack basic swimming skills.[2] Based on this knowledge, prior to water operations, it is critical for leaders to dedicate time and resources to conducting an assessment and training in a pool before any real-world training occurs over open water.

CWST served as the cornerstone of our preparation for the wet-gap crossing and was vital for instilling the fundamental skills and confidence necessary for Soldiers to operate in and around water. In preparation for Exercise Freedom Shield 25, Blackhorse Company conducted comprehensive training leading to the wet-gap crossing at the LTG Thomas S. Vandal Training Complex on Camp Humphreys. The aquatic center at the facility accommodated the entire company for combat water survival and Zodiac training in an indoor heated pool, which the Soldiers welcomed during the Korean winter. Soldiers practiced critical techniques such as treading water, swimming in full kit, ditching equipment and quickly recovering, and diving into the water from a height of 10 meters. Some Soldiers entered this training confident in their swimming abilities; however, many left realizing that swimming in a combat environment is entirely different than swimming for leisure. The training emphasized a realistic approach, simulating conditions that Soldiers might face during an operation.

The curriculum included submerged equipment recovery and techniques for escaping from a vehicle in the event of accidental immersion. By familiarizing Soldiers with these processes, the training aimed to reduce panic and foster calmness in high-stress situations. Of all the benefits the company reaped from this training, the most impactful was the simplest — time in the water. For the average Infantryman, aquatic environments are considered only as obstacles to bypass. By forcing them to confront the harsh and unforgiving nature of water, Blackhorse Company Soldiers grew to appreciate the physical conditioning and skill required to maneuver themselves and their equipment while submerged and waterlogged. At the conclusion of the training, the Soldiers unanimously requested the addition of regular pool time to future physical training (PT) plans, having recognized the value added and potential for improvement. Continuing water training doesn't have to be a set training event every time; platoons can incorporate water survival training into PT plans. Swimming is excellent for cardiovascular health and has a low impact on the body. The rigorous nature of this training prepared Soldiers not only physically but also mentally, instilling the confidence required to perform during the actual crossing.

Another critical aspect of the training progression was Stryker egress training. Given the potential for vehicles to enter the water unexpectedly, it was of paramount importance to provide Soldiers with the skills to safely evacuate from a Stryker in such situations. This training included both classroom instruction and practical exercises. Soldiers learned about the vehicle's escape hatches and emergency procedures, including how to assess and respond to varying water levels surrounding the Stryker Infantry Carrier Vehicle variant. Soldiers practiced egress techniques in simulated sinking scenarios, rehearsing how to exit the vehicle and assist fellow Soldiers quickly. This skill set not only enhances individual safety but also bolsters unit cohesion during shock scenarios. Moreover, the training emphasized improving

Soldiers' situational awareness regarding vehicle positioning and the surrounding terrain while crossing water obstacles. Being able to gauge how environmental factors might impact vehicle stability was crucial for mission planning and execution.

As part of preparations, Soldiers also underwent intensive Zodiac boat training. This aspect of the training proved essential to enabling swift and effective movement across the wet gap. Again, Blackhorse Soldiers conducted this training at the Vandal Training Complex. We were able to acquire a Zodiac from the 814th MRBC before the training and have it staged with the world-class instructors at the complex. Soldiers became adept at launching, maneuvering, and operating these inflatable boats, which are crucial for inserting troops across bodies of water in hostile environments. Zodiacs allow for rapid deployment of infantry and equipment, making them an invaluable asset during wet-gap crossings. The training covered various scenarios, including tactical insertion and extraction, navigation of water hazards, actions in the event of a capsize, and quick disembarkation techniques. Instructors emphasized teamwork and coordination during Zodiac operations — components essential to any task but of heightened significance on the water.

Soldiers practiced elements such as communication, positioning, and synchronization of movements to ensure the successful execution of amphibious assaults. Developing teamwork and confidence proved most important while conducting capsize recovery drills. Crossing the frigid Imjin River on Zodiacs was the most dangerous phase of the wet-gap crossing for the company, as a boat capsizing with an entire squad onboard would have been a catastrophic event. In recognition of the risk inherent to Zodiac operations, the Soldiers of Blackhorse Company drilled capsize recovery relentlessly until every Soldier was competent and confident in their ability to recover from a capsize. This level of training is vital since the success of a crossing relies heavily on the unit's ability to operate as a cohesive team under pressure.

Blackhorse Soldiers conduct Zodiac operations training at the Vandal Training Complex. (Photo by CPT Travis Smith)

Embracing a Combined Arms Mindset — Cross-training with Engineers

From a leader's perspective, learning and understanding wet-gap crossings from an engineer's standpoint proved to be one of the more challenging aspects of this training event. Embracing a combined arms mindset is crucial during complex operations like wet-gap crossings. By cross-training with engineers, units can enhance their ability to adapt and collaborate effectively in challenging environments. Engineers bring vital skills in constructing and maintaining crossings, while infantry units provide security and maneuverability. Before beginning the training, we conducted a joint leader professional development event that discussed both historical and current use of wet-gap crossings. A large part of the event focused on understanding gap-crossing fundamentals and the different nodes engineers would be running at the site. To understand how forces are arrayed and organized, we discussed the differences between the assault, assured mobility, bridgehead, and breakout forces.[3]

During the Freedom Shield operation, Blackhorse Company was tasked as the assault force. Our job was to eliminate all direct fire on the crossing site and limit the enemy's ability to call for indirect fire. The 814th MRBC served as the assured mobility force, while the ROKA V Corps staged as the bridgehead and breakout forces, with mechanized assets positioned to cross the river last. For our company's vehicle commanders, understanding the different nodes the engineers would be running at the crossing site was paramount to the operation's success. They needed to be sure of the locations of the staging area, call forward area, holding area, engineer equipment park (EEP), engineer regulation point (ERP), and traffic control post (TCP) to maneuver to the crossing point and safely across the gap. The ERP proved to be the most crucial node; at this site, the engineers ensured vehicles were safe to cross and that the vehicle crew had all final instructions on site-specific procedures, information, and safety equipment.[4] All forces had to have a shared understanding of each other's jobs for any gap crossing to be successful. Digging into the doctrine beforehand and ensuring that company leadership understood the different roles of each unit were contributing factors to the success of the operation.

Rehearsals — Key to Successful Operations

According to the Center for Army Lessons Learned publication *Crossing Under Fire: A Leader's Guide to Planning an Opposed Wet-Gap Crossing*, during World War II "Many crossings were attempted as 'hasty crossings' that did not take the time to deliberately plan a specific operation, rehearsals, etc." These operations failed until they took a step back and began to deliberately plan and rehearse.[5] After successfully integrating earlier training opportunities with the 814th MRBC, it was time to deploy to the Imjin River crossing site and begin executing rehearsals on the river. Before the execution of the wet-gap crossing, Blackhorse Company conducted joint rehearsals with the 814th MRBC at the crossing site. My

dismounted Soldiers were able to get time on the Zodiacs, conducting multiple crossings with a full combat load, which was different from the previous pool operations. Also, unlike the pool, the river had a strong current that Soldiers had to learn to navigate, and it was about 30 degrees colder than the heated indoor pool at the Vandal Training Complex. These factors made the joint rehearsals much more critical to conduct. My vehicle crew also rehearsed moving through the nodes around the crossing site. This sounds minimal, but the engineers have a lot of equipment at the EEP, and maneuvering a Stryker safely to reach the ERP was a challenge. During this time, the crews also had the opportunity to rehearse actions at the ERP and understand what they needed to do before driving onto the IRB and, more importantly, off the IRB.

Conclusion

The wet-gap crossing at the Imjin River in March 2025 was not just a military operation; it was a testament to the meticulous preparation and dedication of the units involved. The training initiatives leading up to this wet-gap crossing serve as a leading example of how military units can prepare for specialized operations. However, it is essential to advocate for ongoing training of this nature rather than reserving it for the infrequent instances of water-specific training events. Wet-gap crossings are rare occurrences, but the skills developed during such training hold immense value and applicability in broader scenarios. Regular CWST should be a fundamental component of every unit's regimen. By maintaining a baseline of water competency, units increase their operational versatility and reduce the risk of casualties during unexpected circumstances. Commanders in mounted formations should include water-focused training on their training calendar to ensure Soldiers are building the confidence to operate around water obstacles. Incorporating these activities ensures that Soldiers retain their skills and can adapt to evolving tactics, techniques, and procedures under varied conditions. The lessons learned from past operations should inform training, enabling Soldiers to remain proficient and ready to respond effectively when needed.

The extensive training conducted by Blackhorse Company and the 11th Engineer Battalion was crucial in enhancing Soldiers' confidence, competence, and readiness to tackle the challenges presented by future military conflicts. Conducting CWST, embracing a joint mindset, and ensuring the lowest levels are performing the proper rehearsals were integral to ensuring the mission's success. These training modules fostered teamwork, adaptability, and resilience — qualities essential for military excellence. As we reflect on this operation, such training should be a continuous endeavor rather than an irregularity. By embedding CWST in the training calendar, we not only prepare our Soldiers for the unique challenges of crossing aquatic obstacles but also cultivate a culture of readiness that is essential in today's ever-evolving operational landscape. Practical training prepares our Soldiers not only to survive but to thrive in the face of adversity, ensuring mission success under any circumstances.

Blackhorse Soldiers move back across the wet gap after seizing the far side of the gap and conducting a forward passage of lines with Republic of Korea Army V Corps K2 tanks on 20 March 2025. (Photo by SGT Oniel McDonald)

Notes

[1] Center for Army Lessons Learned Publication (CALL) 21-20, *Crossing Under Fire: A Leader's Guide to Planning an Opposed Wet-Gap Crossing*, 29 October 2020.

[2] American Red Cross, "American Red Cross Stresses Vigilance and Strong Swimming Skills as Keys to Water Safety during Water Safety Month," 25 May 2022, https://www.redcross.org/local/texas/north-texas/about-us/news-and-events/press-releases/american-red-cross-vigilance-strong-swimming-skills-water-safety.html.

[3] Army Techniques Publication 3-90.4, *Combined Arms Mobility*, June 2022.

[4] Ibid.

[5] CALL 21-20, *Crossing Under Fire*.

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1LT Samuel K. Wishon currently serves as a platoon leader in Blackhorse Company, 2-3 IN. His military schools include the Infantry Basic Officer Leader Course and Ranger Course at Fort Benning, GA. He graduated from the U.S. Military Academy at West Point, NY, with a bachelor's degree in English.

Lessons from Saber Junction 25

The Importance of NCOs in the Planning Process

CSM JESSE J. CLARK

For centuries, the U.S. Army's NCO Corps has been called "the backbone of the Army." This phrase is more than a cliché; it reflects the indispensable role NCOs play in connecting strategic intent to tactical execution. While officers provide vision and command authority, it is the NCO who helps ensure that plans are executable, synchronized, and grounded in the realities of the formation.

During Saber Junction 25, a multinational training exercise with the 2nd Cavalry Regiment, this truth was reinforced daily. The complexity of coordinating across multiple nations, warfighting functions, and operational timelines highlighted a critical lesson: Whether working through the military decision-making process (MDMP) at the regimental and squadron levels or troop leading procedures (TLPs) at the troop and platoon levels, the active participation of NCOs in planning is essential to mission success.

This article argues that the Army cannot afford to relegate NCOs to the role of mere executors of orders. Instead, they must be integrated as contributors and leaders within planning processes, providing experience, perspective, and practical knowledge that directly shape the outcome of operations.

NCOs in the MDMP

MDMP is often perceived as officer-centric, with commanders, staff officers, and planners driving the process. While doctrine (Army Doctrine Publication 5-0, *The Operations Process*) acknowledges the importance of input from across the staff, in practice, NCOs are sometimes underutilized in this arena. This is a missed opportunity, and there are three reasons why NCOs should be used:

Ground Truth and Feasibility Checks — NCOs bring a candid and experience-based perspective to planning. They understand the capabilities and limitations of Soldiers, equipment, and sustainment systems at a level that cannot be replicated through data or models. They have experiences that can help identify friction in the plan.

Synchronization Across Warfighting Functions — Enlisted leaders provide critical insights in areas like sustainment, protection, and movement. Without their perspective, MDMP products risk becoming disconnected from reality. All too often, tactical plans are created and disseminated without ensuring all warfighting functions are incorporated to be successful.

Enhancing Shared Understanding — By contributing early in MDMP, NCOs ensure the plan reflects not only the commander's intent but also the operational environment Soldiers will encounter, which makes it easier for Soldiers and leaders at echelon to understand and execute.

NCOs in the Troop Leading Procedures

At the small-unit level, TLPs are where plans meet execution. NCOs are the key actors in this process:

Translating Intent into Action — Platoon sergeants, squad leaders, and team leaders take higher-level plans and convert them into tasks their Soldiers can execute. Doing so provides purpose for Soldiers to execute.

A platoon sergeant with the 2nd Cavalry Regiment applies camouflage face paint during Saber Junction 25 at Hohenfels Training Area in Germany on 5 September 2025. (Photo by SGT Maria Goodwin)

Training, Discipline, and Standards — NCOs ensure that Soldiers understand not only what to do but how to do it to standard. Their leadership ensures compliance with doctrinal fundamentals while maintaining adaptability.

Speed and Agility in Execution — Because NCOs are intimately involved in TLPs, they enable units to transition quickly from plan to action as well as help with transitions.

Lessons from Saber Junction 25

Saber Junction 25 underscored several enduring truths about the role of NCOs in planning:

- Doctrine and commander's intent meet reality through NCOs.

- Multinational complexity requires enlisted expertise and involvement for it to be successful.

- Ownership drives success. NCOs who participate in developing a plan tend to take more ownership during execution.

U.S. Air Force Pararescuemen and 2nd Cavalry Regiment Soldiers perform a casualty evacuation during Exercise Saber Junction 25. (Photo by SrA Joseph Bartoszek)

One specific example occurred during sustainment operations, specifically casualty evacuation. While the officers and staff produced a sound plan, NCOs highlighted gaps in timelines and capabilities to get casualties to the next higher level of care. Their input adjusted the placement of the Role 2 and other critical nodes, specifically during the attack.

Building a Culture of Inclusion in Planning

To fully leverage NCO contributions, leaders must deliberately cultivate a culture that includes enlisted leaders in planning. This requires:

Commanders Who Value NCO Input — Commanders must deliberately invite and expect NCO participation in MDMP and TLPs.

Professional Development in Planning Skills — NCOs must be trained and educated in MDMP, TLPs, and related doctrine. NCOs do well at execution but do not receive formal training that helps them insert themselves during planning.

Habitual Integration in Staff Processes — NCOs assigned to staff sections must be empowered to provide meaningful input. Staff NCOs have the knowledge and ability to provide input during each step of planning.

Implications for the Army Profession

The role of the NCO in planning is not merely a matter of preference; it is a requirement for readiness and mission success. As the Army prepares for large-scale combat operations against near-peer adversaries, the margin for error is razor-thin. Which means that NCOs need to be formally trained in MDMP and be developed to insert themselves in the process to ensure mission success.

Furthermore, integrating NCOs into planning strengthens the Army profession by reinforcing trust between officers and enlisted leaders.

Conclusion

Saber Junction 25 reaffirmed a timeless truth: NCOs are not just the backbone of the Army in execution but also in planning. NCOs ensure that plans are realistic, synchronized, and executable — this realization can be said at the regimental and squadron levels during MDMP as well as at the troop and platoon levels during TLPs,

The Army must continue to cultivate a culture where NCOs are fully integrated into the planning process, and NCOs must embrace their responsibility to contribute. A unit that plans together fights together, and a unit that fights together wins together.

CSM Jesse J. Clark currently serves as the senior enlisted advisor of the 2nd Cavalry Regiment in Rose Barracks, Germany. He began his military career in February 2000 when he enlisted in the Army Reserves as a hospital food specialist with the 256th Combat Support Hospital in Cleveland. After 9/11, he joined active duty as an Infantryman and attended Infantry One Station Unit Training and Airborne School at Fort Benning, GA. He has served as an infantry team leader, squad leader, platoon sergeant, first sergeant, first sergeant observer-coach/trainer (OC/T), operations sergeant major, battalion command sergeant major, and command sergeant major OC/T. He has deployed twice to Afghanistan in support of Operation Enduring Freedom, once to Iraq in support of Operation Iraqi Freedom, to Poland in support of Operation Atlantic Resolve, to Kuwait in support of Operation Spartan Shield and Operation Inherent Resolve, and to Qatar in support of Operation Allies Refugee. CSM Clark earned an associate's degree in general studies from Troy University as well as bachelor's and master's degrees in organizational leadership from Columbia Southern University.

The Anatomy of a Defense that Blackhorse Could Not Break

COL ED ARNTSON, CPT TYLER ARNOLD, LTC ROBERT GRAVES,
LTC RUSS GRIGSBY, AND LTC JOHN NIMMONS

While many military theorists over time have posited that defense is the stronger form of warfare when compared to the offense, that does not mean that it's easier to plan and execute. I learned this hard lesson during my first rotation as a brigade commander to the National Training Center (NTC) in the spring of 2024. Despite meticulous planning, commander's visualization on the ground with subordinate leaders, and rehearsals at echelon, my brigade (3rd Armored Brigade Combat Team, 1st Cavalry Division) was thoroughly destroyed by NTC's professional opposing force (OPFOR).[1] The enemy commander quickly found our weakness, namely a seam between my two forward battalions, and rapidly exploited it. We were humbled and I was very frustrated as I reviewed several things that we could have done better during the preparation and execution of our defense.

Fast forward to the spring of 2025, and I found myself in the same tactical situation. After several successful offensive operations against the OPFOR, my brigade received the order to execute a defense along our forward boundary. I was determined to learn from the previous year's mistakes and put the brigade in a position of advantage. I immediately determined that I would put all three of my combined arms battalions in forward battle positions, something that I did not do the previous rotation and instantly regretted. I maintained a tank company as the brigade reserve and assumed moderate tactical risk in my rear area.

While I liked our initial defensive array much better than my plan in 2024, we still had a tremendous amount of work to do to build a defense that would be able to repel multiple attempts by the enemy commander to penetrate our line. As we planned and executed our defense during rotation 25-06, there were **three keys** that led to the brigade's success:

1) Tremendous analysis of the enemy's most likely avenues of approach and course of action;

2) Superb planning and execution of the brigade's Family of Scatterable Mines (FASCAM); and lastly

3) A sound obstacle plan coupled with the disciplined execution to put in more than 95 percent of the brigade's planned obstacles and survivability positions.

Soldiers assigned to 2nd Battalion, 7th Cavalry Regiment, 3rd Armored Brigade, 1st Cavalry Division, posture a Bradley Fighting Vehicle during Rotation 25-06 at the National Training Center, Fort Irwin, CA, on 31 March 2025. (Photo by CPL Nathaniel Garrett)

What follows is the narrative of the incredible professionals who led each of these efforts. CPT Tyler Arnold, the brigade's Military Intelligence Company (MICO) commander, will detail his team's analysis and how it led to lethal fires against the enemy commander. LTC Robert Graves, commander of 2nd Battalion, 82nd Field Artillery Regiment, will walk through his team's work to build FASCAM targets and why this type of artillery is still relevant on the modern battlefield. And lastly, LTC Russ Grigsby and LTC John Nimmons, commanders of the 3rd Engineer Battalion and 3rd Battalion, 8th Cavalry Regiment respectively, will cover obstacle planning, obstacle building, and ultimately the execution of the defense by the battalion that was tested most often that morning in the Mojave Desert.

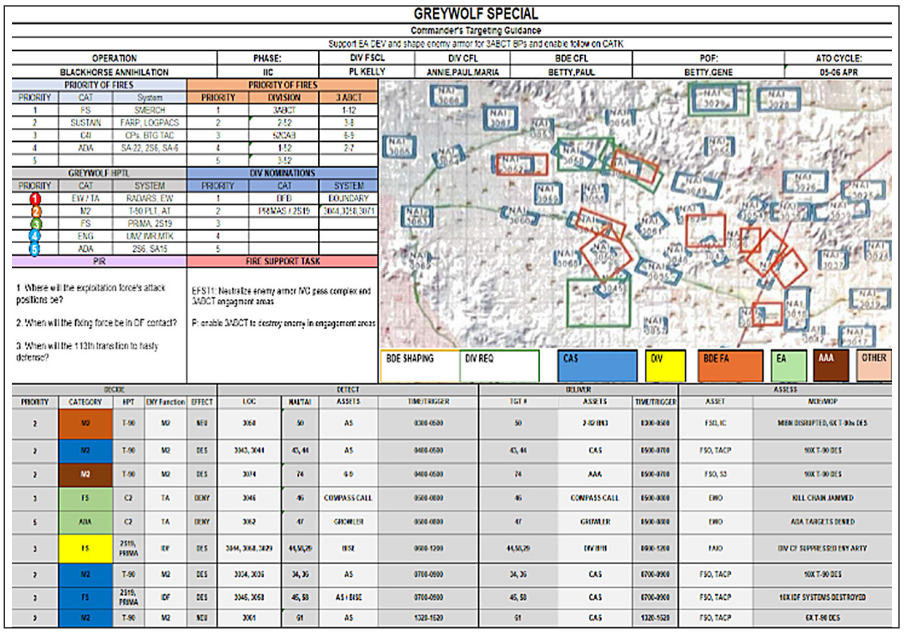

Figure 1 — Example Greywolf Special

The Greywolf Brigade demonstrated that defense can be the stronger form of warfare when anchored on the seven doctrinal steps of engagement area development. The incredible Soldiers and leaders of Greywolf built a defense that allowed zero enemy penetration and finished with a brigade-level counterattack to the enemy's rear area. This was a complete team effort — from the sustainers who delivered the supplies to build the obstacles all the way to the Infantrymen on a hill with Javelins.

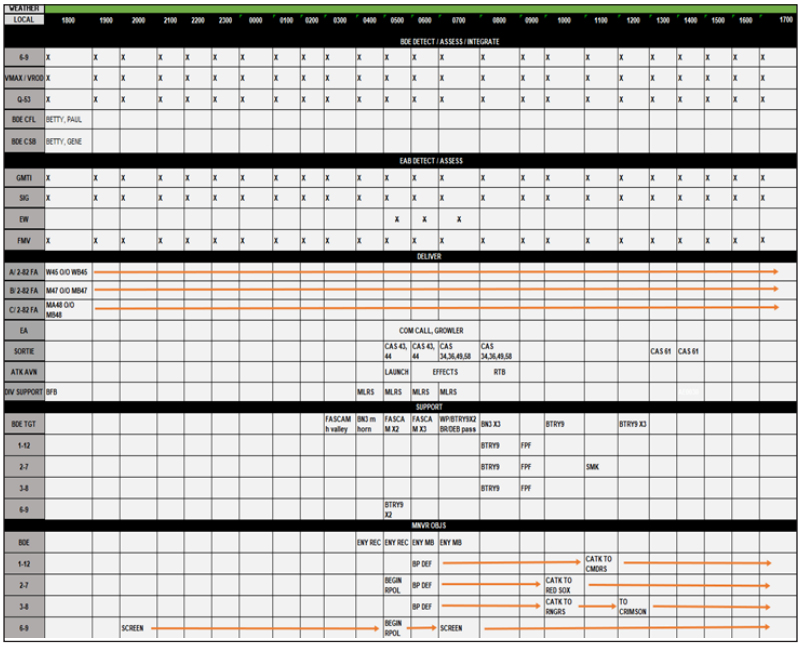

Figure 2 — Example Intelligence Collection Synchronization Matrix

Intelligence: Getting the Right Read on the Enemy

For the Greywolf intelligence enterprise and MICO, mission analysis for the defense during NTC 25-06 primarily focused on terrain first. Initial guidance for the fusion cell within the brigade intelligence support element (BISE) directed most of its organizational energy towards analyzing all viable avenues of approach available to the enemy. Doing so informed the team where enemy forces would allocate combat power, echelon and shape its maneuver, as well as weigh its main effort. The detail in this analysis enabled the Greywolf Brigade to synchronize fires with the maneuver defensive plan to disrupt the enemy beyond battalion engagement areas, which was critical to countering the enemy's offensive initiative.

During terrain analysis, we identified Goat Trail and Brown Pass as the decisive west and east running corridors after we assessed the enemy would use them to mass against our defensive efforts. These trails provided the enemy with maximum cover and concealment, enabling them maneuver to positions of advantage where they could mass fires at their point of penetration. We assessed that Blackhorse would try to penetrate between 2nd Battalion, 7th Cavalry (Ghost) and 3-8 CAV (Warhorse) on the north end of our line near Hill 810. Furthermore, the Northern Corridor was also an area of concern as we did not have any deliberate defensive posture there. The initial assessment determined the enemy would feint or threaten the north with a small force to prevent the use of our reserve in the main defensive area. Collectively, this combined assessment became the foundation for the concept of information collection, priority intelligence requirements, and synchronization with fires.

The detailed analysis of terrain greatly impacted the planning and execution of information collection. Subsequently, this enabled precision synchronization with the fires plan, leading to substantial success in shaping operations throughout the battle. The primary objective centered on providing the brigade commander and the brigade fire

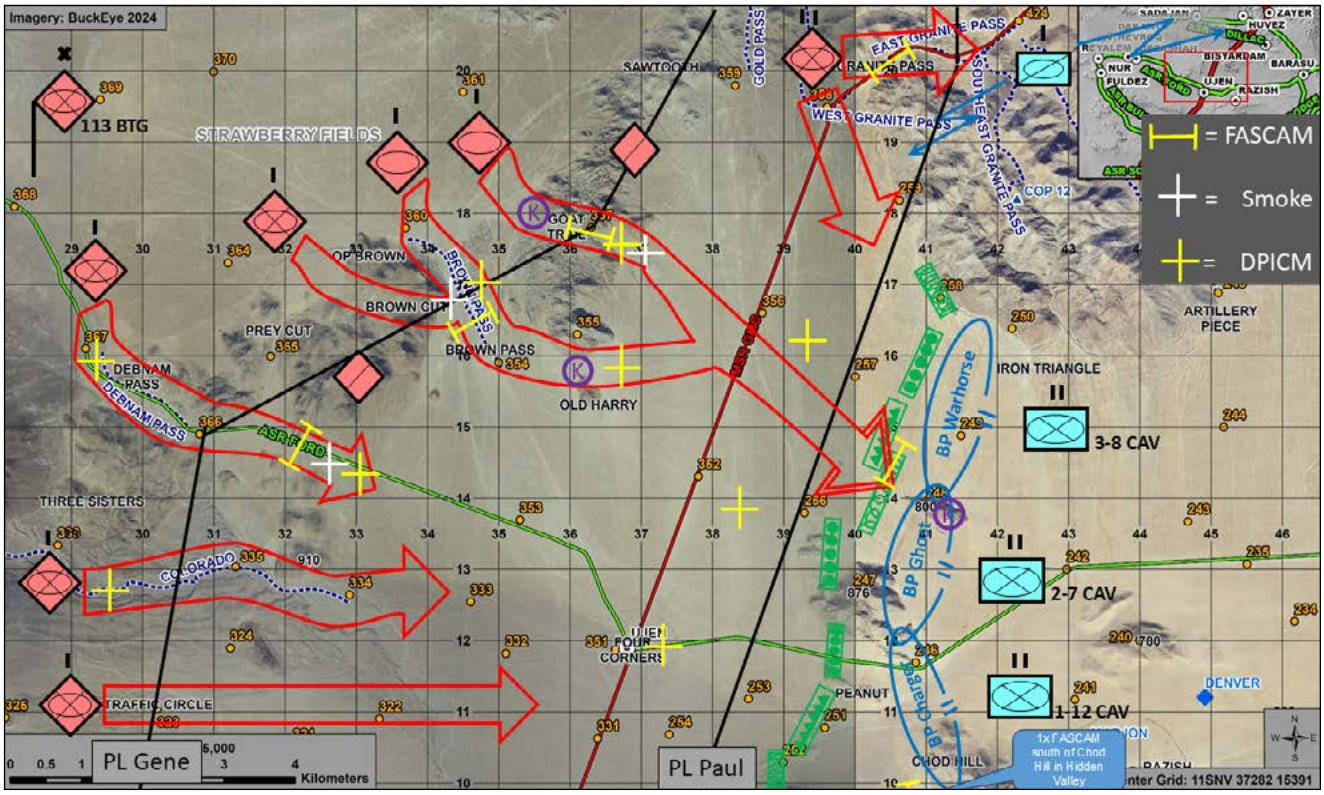

Figure 3 — 3/1 ABCT Example Defense

support coordinator (FSCOORD) with the intelligence they needed to disrupt and shape the enemy before they entered the battalion's engagement areas. By doctrine, brigades do not have intelligence handover lines (IHLs), but we divided information collection and intelligence analysis into distinct geographic zones of responsibilities between the BISE (deep) and the main command post (MCP) (close). We centralized planning management for all collection assets in the MCP with the collection manager, utilizing the intelligence collection synchronization matrix (ICSM) and the Greywolf Special as fighting products to enable brigade commander decisions (see Figures 1 and 2). These fighting products were then seamlessly passed to the execution managers at the BISE and MCP S2 current operations (CUOPs).

Operating from the division support area, leaders in the BISE controlled the intelligence technical control (ITC) of Gray Eagle, Ground Moving Target Indicator (GMTI), and overhead signals intelligence (SIGINT) collection. Their priority was to identify the enemy by echelon (fixing, assault, exploitation, reserve) as they moved west to east beyond the brigade area of operations (AO). Once each enemy echelon reached the band of named areas of interest (NAIs) we determined could be target areas of interest (TAIs) for our Paladins, the MCP assumed custody utilizing the brigade's organic Aerosonde. At this point, we stayed tightly locked in with fires to identify enemy slants in specific mobility corridors to trigger targets. Our most notable success was identifying enemy armor moving through Goat Trail, which triggered an extremely successful FASCAM.

The key to our overall success as an intelligence enterprise during this fight stemmed from clearly defining geographic responsibilities between nodes. The BISE could then stay focused on shaping and refining the next 12-24-hour intel picture, while the MCP remained flexible based on the current fight and Greywolf 6's priorities. Both nodes had their own analytical horsepower, collection assets, and fires representatives to operate independently.

Fires Planning

Fires in support of the defense required a detailed maneuver course of action, tied to the commander's intent for fires and his visualization to properly create, sequence, and resource effects against the enemy. Continuous communication between Greywolf 6 and FSCOORD proved to be the critical starting point for the fire support planning process. This dialogue identified the essential fire support task (EFST) of "destroy enemy armor in EA [engagement area] Ghost." A critical supporting fire support task was "disruption of the enemy fixing force in the pass complex." FASCAM targets would be the linchpin to achieving the EFST.[2]

Greywolf trained to use FASCAM in all previous exercises. Our understanding of its strength, when tied to constricting terrain, enabled us to utilize a munition type that had been relegated in the preceding years of counterinsurgency operations. Greywolf gained a newfound respect for FASCAM and made it a centerpiece of how we influenced the battlefield in the brigade fight.

Collaboration between Greywolf 6, the brigade S2, S3, and FSCOORD created a terrain-focused sequence of maneuver for both defense and counterattack. As the

S2 described the enemy actions, Greywolf 6 and the S3 described maneuver tasks, which then were supported by targets from the FSCOORD. This sequential dialogue kept the logic of the plan integrated. Supporting targets were carefully planned to disrupt enemy armor prior to reaching the main engagement areas. Six minefields employing FASCAM were scheduled to be fired ahead of enemy fixing forces to slow their advance, creating disruption and vulnerability. To amplify the disruption task, additional fire missions included Dual Purpose Improved Conventional Munitions (DPICM) and white phosphorus targets. Each battalion was assigned a destruction target — precise points within their engagement areas to achieve the EFST.

Refinements to this network of targets were made through detailed terrain analysis and trigger calculations based on 2-82 FA's Artillery Table XV processing times. Although the target list worksheet contained 25 planned fire missions, phased grouping and execution enabled a manageable and synchronized effort. Detailed technical and combined arms rehearsals validated observation capabilities, identified gaps, and allowed adjustments before execution. Brigade and battalion fire support elements rehearsed fire sequences, observation plans, and communication procedures.

During execution, fires commenced by shaping enemy staging areas utilizing division assets, led by the brigade field artillery intelligence officer. Just prior to our no later than defend time, we initiated our planned sequence of FASCAM targets. The sequence of the minefields achieved disruption of the enemy's movement and forced them to breach multiple passes, providing our battalion early warning.

When the enemy breached a pass, follow-on DPICM and white phosphorus strikes further degraded their armor and obscured their view of our defensive positions. The fires network demonstrated remarkable agility, only achieved because each element understood the sequence of fires needed by the whole brigade. The counterattack was a well-rehearsed reverse breach of the defensive plan, with pre-established targets now executed from east to west to support breakout operations.

This fires plan depended on deliberate visualization, detailed planning, and rigorous rehearsals. The result was a highly effective fires plan that not only defended successfully but also facilitated a swift and decisive transition.

Mobility and Counter-Mobility

Building an effective defense requires commanders and staffs to have adequate time to thoroughly plan and prepare. Preparation means having a solid understanding of current capabilities and available resources, where the commander wants to kill the enemy, an appreciation for concept of operations as well as, more importantly, where the commander wants to be after the defense. During NTC 25-06, the engineer battalion staff maintained frequent and meaningful contact over several days with the brigade commander and his staff to develop a plan that was executable not only by the engineers, but by the brigade as a whole.

Underpinned by accurate engineer math, our defense in the central corridor required three distinct obstacle belts: a turn off the Northern Wall oriented southwest towards Command Post 258, a fix from Hill 800 to Peanut, and block from Peanut to Chod Hill. Achieving the brigade commander's intent required emplacement of a myriad of other obstacles. Each obstacle belt required groups of obstacles composed of concertina, minefields (Volcano, Standoff Activated Volcano Obstacle [SAVO], FASCAM), improvements to existing obstacles, turret and hull defilade positions. Building a defense that spanned 11 kilometers in 48 hours meant we had to use every tool and every Soldier available.

Given available equipment, Class IV, and Class V, we had to make each minute matter, so we focused engineers on what only they could do. As cliché as it sounds, it enabled us to prioritize the blade team effort to solely focus on survivability construction to provide protection to our most lethal weapons system, our tanks. Sappers emplaced Volcano minefields, road craters in the passes leading to the central corridor to protect our flanks and other smaller mobility corri-

Soldiers assigned to 3rd Armored Brigade Combat Team, 1st Cavalry Division excavate tank fighting positions during JRTC 25-06 on 4 April 2025. (Photo by SPC Marques Martinez)

dors near the forward edge of the battle area, which left the remaining Sapper platoons to supervise construction utilizing the brigade's infantry to emplace wire obstacles while the engineer battalion consolidated reporting and coordinated the delivery of Class IV to keep our teams working.

Building the brigade's defense required an immense amount of reporting. Dual reporting between both the supported task force and engineer battalion headquarters positioned the engineer battalion headquarters to receive, analyze, and synchronize defense construction which allowed the brigade staff to focus its energy on other commander priorities. Organizing the engineer battalion staff this way also enabled the engineer battalion commander, the brigade engineer, to operate as the engineer coordinator (ENCOORD). The brigade engineer, as ENCOORD, is responsible for synchronizing engineer missions across the battlespace, making rapid tactical decisions and coordinating directly with supported task forces. This role includes shaping future operations by allocating resources, advising the brigade commander on engineer priorities and risk while empowered to adjust plans based on evolving battlefield conditions. The ENCOORD also provides timely and critical recommendations to the brigade for asset reallocation, identifying opportunities to seize the initiative and coordinating the resupply of all Class III and Class IV to sustain engineer operations.

U.S. Soldiers assigned to the 3rd Battalion, 8th Armored Regiment maneuver a Bradley Fighting Vehicle to a new fighting position during NTC 25-06 on 6 April 2025. (Photo by SPC William Vu)

Engagement Area Development: Building the Defense from Inside Out

As NTC observer-coach/trainers state, visualization starts with the red pen. For 3-8 CAV, the incorporation of intelligence products at echelon was critical at the start of this visualization process. The other crucial part was the feel of the terrain based on a detailed reconnaissance to survey the engagement area. Here, map contour lines become intervisibility lines and dead space from which enemy limitations and advantages are illuminated.

During our brigade defense for NTC 25-06, the 3-8 CAV defensive sector spanned from the northern portion of the central corridor from Hill 800 to the Iron Triangle into the mountains south of Granite Pass. Within a few hours of completing brigade offensive operations into Razish, the battalion commander brought all the company commanders to the Iron Triangle to view the defensive sector and walk through the steps of engagement area development. It was here that we discussed the brigade's intelligence products in relation to the terrain. All commanders discussed the problem posed by Wadi 141 and the hills surrounding hills the Iron Triangle, which provided not only a location for any enemy support by fire (SBF) but also cover and concealment to penetrate defensive lines.

From there, we assessed that the enemy would use an SBF in the vicinity of the Iron Triangle to conduct a penetration either in Wadi 141 or near Hill 800 to split the seam between 3-8 CAV and 2-7 CAV. The discussion led to a lengthy review of how the enemy would use jamming and indirect fires to set conditions to position their SBF and conduct an attack. The potential use of non-persistent chemical munitions validated the need for a deception plan with the battalion MCP as well as depth for fighting positions. These discussions were made possible by the timely planning and analysis provided by the brigade S2 and S3 shops. Within an hour of completing offensive operations, Warhorse was already postured to begin preparations for the defense. The timeliness in higher-level products created the conditions to execute a smooth transition to the defense.

The terrain itself dictated that the hills near Granite Pass and Wadi 141 would dominate the fight, requiring immediate attention. Furthermore, the terrain revealed where natural seams could be exploited, thus focusing the discussion among company commanders and the battalion commander on how best to plan obstacle emplacement, battle positions, and direct and indirect weapons systems. Preparation before the battle included a direct order that all tanks and Bradleys would carry a certain amount of pickets and c-wire. This was instrumental in executing simultaneous actions for obstacle emplacement upon occupation of the engagement area.

The templated brigade obstacle plan accounted for Wadi 141, but input from my Chaos Company commander highlighted a need to extend it further to force the enemy out of dead space into an open area. We all agreed that this was the decisive point and key terrain for killing the enemy. I issued instructions to the attached engineer company to request additional resources immediately to extend the obstacle by another 1,000 meters. As a result, Warhorse was able to

simultaneously build the brigade obstacle in the northern portion of the area of operations while also shoring up gaps in dead space with pre-positioned Class IV on vehicles.

The center-cut road in the middle of the engagement area was an intervisibility line that provided the last covered position for the enemy at 2,000 meters to planned battle positions. To cover this, my fire support officer designated target groups for battalion mortars and field artillery targets for refinement near Old Harry and Sawtooth Pass. From the center-cut road, tanks and Bradleys would have open fields of fire to finish off disrupted enemy formations.

The final portion of the discussion lent itself to depth within the battalion in the defense. I requested 31 tier-one battle positions in depth at subsequent and alternate positions. Based on blade time and dozer capability, the engineer commander assessed there were enough resources to accomplish this task. Task organization based off the direct and indirect fire requirements required task organizing one tank platoon to the infantry company to support Wadi 141 and one infantry platoon to Battle Company to retain Hill 800 and tie into 2-7 CAV's northern flank in the center of the brigade AO. I made the decision that Annihilator Company would remain a pure tank company and be positioned in hide sites behind the Iron Triangle to mask the depth and intent of the defense. We developed and rehearsed tactical triggers for deployment into their battle positions based on enemy advancement through the engagement area.

The next 24 hours saw commanders at echelon trooping the line to inspect obstacle and battle position efforts. Warhorse defended against probing attacks and aviation strikes while building out their defense. The brigade and battalion commander visited Chaos Company to inspect their work. Chaos made significant headway with their obstacle emplacement, and the company commander described in detail how he thought the fight would play out. Of note, all three commanders discussed the observation of Sawtooth and Old Harry and its criticality to quickly identifying enemy formations that came from those areas to disrupt and attrit. From this vantage point, the brigade commander determined that FASCAM mines at Old Harry, Sawtooth, and Granite Pass were vital in shaping the enemy into the engagement area to the north. From there the brigade fires plan was adjusted so that the right effects would occur to enable the defense.

Warhorse began executing the most important part of engagement area development — rehearsals. Both echelons executed combined arms rehearsals over the radio with subordinate elements reporting actions centered on enemy and friendly decisions with subsequent actions. Warhorse also brought in commanders and staff to conduct a tabletop exercise to rehearse and refine the triggers and decisions. Finally, time was allotted for another FM rehearsal where companies drove from hide sites to battle positions for final route verification and timing. This last rehearsal was the most useful at the battalion and company level as it gave concrete experience for time management and synchronization down to the crew level across all platoons.

Part of the rehearsal process included requiring platoons and companies to record the amount of time it took to physically drive to subsequent and supplementary battle positions. We also rehearsed counterattack actions, both reverse breach and actions on follow-on objectives. These rehearsals set the conditions for a successful defense with a large portion of enemy forces destroyed within the engagement area, leading to a decisive counterattack that quickly established a lane through the obstacle for the brigade to break out and attack on Ujen, Sawtooth, and Old Harry. Ultimately the breakout was so successful that elements of 1-12 CAV and 3-8 CAV were able to seize terrain as far west as Mars Corner.

Conclusion

The success of Greywolf's defense at NTC 25-06 can be attributed to a holistic team effort across all echelons that were focused on the proper doctrinal execution of engagement area development. The integrated fires and intelligence planning, the visualization of terrain to properly emplace obstacles, and the maneuver planning and rehearsals for all the combined arms battalions led to a unity of effort that enabled commander's understanding, visualization, and direction. Following tried and true methods for engagement area development bought the time necessary for rehearsals at all echelons to find gaps in planning and anticipate enemy actions. The result was an inability for Blackhorse to penetrate the defensive line and a decisive counterattack that highlighted the true lethality of an armored brigade combat team.

Notes

[1] NTC's opposing forces are from the 11th Armored Cavalry Regiment, a three-battalion formation comprised of armor, infantry, and sustainment formations.

[2] Essential fire support task describes the effect that must occur to achieve the commander's guidance for fires. If it is not accomplished, the maneuver commander may need to adjust their tactical or operational plan.

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LTC Robert Graves currently commands the 2nd Battalion, 82nd Field Artillery Regiment, 3/1 CAV. A graduate of the Command and General Staff College at Fort Leavenworth, KS, LTC Graves was selected to attend the U.S. Army War College in Carlisle, PA.

LTC Russell Grigsby currently commands the 3rd Engineer Battalion in 3/1 CAV.

LTC John Nimmons currently commands 3rd Battalion, 8th Cavalry Regiment, 3/1 CAV. A graduate of the School of Advanced Military Studies, LTC Nimmons was selected to attend Senior Service College at the Joint Advanced Warfare School in Norfolk, VA.

Preparing for JRTC and Beyond:

Training for Walking Blood Bank Operations and Changing Acceptable Risk Tolerance in LSCO

CPT SPENCER CAVOTTI

The walking blood bank (WBB) is a familiar concept to most units when considering actions during mass casualty events. It is an intuitive practice that has been used in Army medicine since World War I. When casualties suffer from significant blood loss at the point of injury, they require transfused blood to ensure they survive to the next level of care. Though Soldiers are quick to mention the benefits of WBB programs, knowledge of the program's mechanics and training rarely passes the theoretical stage. As brigades prepare for Joint Readiness Training Center (JRTC) rotations and large-scale combat operations (LSCO), targeted medical training and a little creativity will exponentially increase their ability to implement a successful WBB program.

This article illustrates why Army units need to change how they prepare, train, and adjudicate casualties during combat training center (CTC) rotations. Additionally, it addresses the need for leaders to reconsider operational risk as it pertains to medical running estimates and WBB operations in LSCO. During JRTC Rotation 25-10, 2nd Battalion, 14th Infantry Regiment, 2nd Brigade Combat Team, 10th Mountain Division, served as the first rotational training unit (RTU) to evaluate the effectiveness of JRTC's updated medical adjudication tables, which account for unit actions during prolonged casualty care to extend the treatment clock. 2-14 IN's medical preparations for this rotation focused specifically on training WBB operations and adopting replication strategies for the rotation.

How 2-14 IN Approached WBB at JRTC

There is no FDA-approved methodology for deploying units to procure their own cold-stored whole blood (CSWB) without external support. The responsibility for maintaining this knowledge base rests within the brigade combat team (BCT). In the current Army deployment slate, BCTs are the smallest units that deploy organically under a unified command structure and are the standard-sized unit to participate in CTC rotations.

A successful WBB begins with a codified and disseminated standard operating procedure (SOP) signed by the BCT commander. The Joint Trauma System Clinical Practice Guide (CPG) (ID:21) provides a detailed example of a WBB SOP.[1] The brigade's physician assistants (PAs) and providers derive their authority to conduct autologous blood transfusions in training scenarios from the BCT commander and their medical licensing. PAs and providers must then train their medics to conduct transfusions, delegating their authority to conduct autologous blood transfusions to the medics once training and certifications are complete.

Medics in Headquarters and Headquarters Company, 2nd Battalion, 14th Infantry Regiment, establish an ambulance exchange point during Joint Readiness Training Center Rotation 25-10 at Fort Polk, LA. (Photo by CPT Spencer Cavotti)

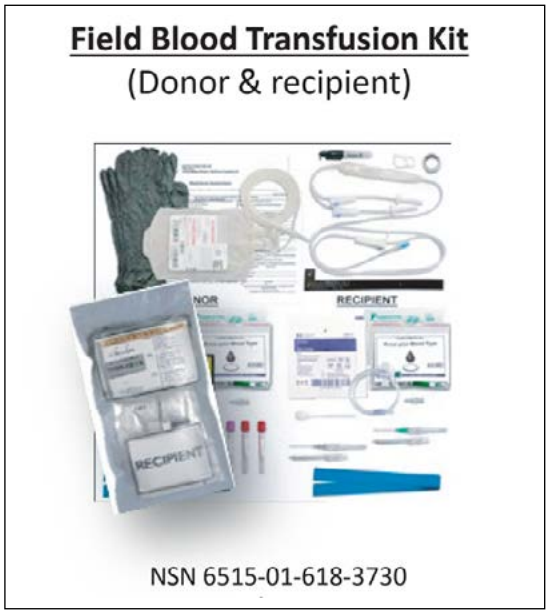

Figure 1 — Field Blood Transfusion Kit[22]

Common Terms

Walking blood bank (WBB) — a system for collecting whole blood from donors in emergency situations to be given to casualties. Not FDA approved but used for decades. In practice should be LTOWB.

Low-titer O whole blood (LTOWB) — the universal donor for whole blood. Requires testing to verify low amounts of antibodies (low titer). May be either SWB or FWB. Irrespective of O POS/O NEG.

Fresh whole blood (FWB) — synonymous with walking blood bank and in practice should be LTOWB

Armed Services Blood Program (ASBP) — typical source for CSWB

Cold-stored whole blood (CSWB) — blood collected from pre-screened individuals and kept refrigerated in for anticipated injuries. Typically procured thru ASBP.

Transfusion transmitted diseases (TTD) — CSWB undergoes TTD testing.

Stored whole blood (SWB) — refrigerated and not TTD; In practice should be LTOWB.

Autologous Blood Transfusion — blood taken from one person and given back to the same person. Only used for training.

Figure 2 — Common Terms

Headquarters and Headquarters Company (HHC), 2-14 IN began training WBB practices in December 2024, nine months before JRTC Rotation 25-10. Education began with a leader professional development (LPD) series targeting the battalion's officers, where the PA demonstrated drawing blood from a low-titer O-type donor. These donors produce low-titer O whole blood (LTOWB), which in simple terms is blood that is unlikely to trigger an adverse patient reaction when transfused (acute hemolytic transfusion reaction).[2] Part of the demonstration was an introduction to field blood transfusion kits and ways to replicate these kits in training scenarios. Each donor had one pint of blood drawn and then fed back into their blood stream to simulate blood transfusions during an active WBB.

During each subsequent training at HHC, 2-14 IN's Role I, each medic practiced drawing units of blood and feeding them back to the donor under supervision from the PA. The limiting factor for blood transfusions was the availability of the transfusion kits. Units must begin ordering transfusion kits as early as possible through the brigade medical supply officer to have sufficient kits for training medics before JRTC.

Two months before JRTC 25-10, 2-14 IN's medics began the process of certifying company senior medics in autologous blood transfusions for the rotation. Each medic in the battalion began by watching U.S. Army Institute of Surgical Research's "Warm Fresh Whole Blood Transfusion Training" before observing the PA demonstrate the technique live at the Medical Simulation Training Center (MSTC).[3] Each Army base has an MSTC, which is often the most underused training resource on the post. These facilities, however, offer crucial resources for training units. The PA also led classes on the physiology of transfusions, indications for blood transfusions, and managing adverse reactions. After viewing the PA's demonstration and completing classroom instruction, each senior medic paired with a junior medic to draw one unit of whole blood and feed it back to the donor. Our battalion considered medics certified to conduct solo autologous blood transfusions once they demonstrated competency.

By the time 2-14 IN arrived at JRTC 25-10, the battalion had six medics certified to draw and administer whole blood on the battlefield. Furthermore, each of the 19 medics at the Role I could complete the procedure under PA supervision. The training the unit completed beforehand would enable medics to perform an actual WBB during the rotation, but the intent was to execute notional WBBs and prolonged casualty care with replicated kits at JRTC. During reception, staging, onward movement, and integration (RSOI), the battalion medical team delivered the BCT WBB SOP to the JRTC Operations Group and briefed the pre-rotation certifications that the medics completed.

One additional data point that we completed was our LTOWB donor list. In preparation for 2/10 MTN's 2023-2024 Operation Inherent Resolve (OIR) deployment, the brigade allocated funds to conduct titer-testing during Soldier Readiness Processing (SRP). From titer-testing, the brigade deployed to Iraq and Syria with roughly 23 percent of the brigade identified as LTOWB donors. Titer testing is certainly not a requirement for units that want to train WBB at JRTC because only autologous transfusions or simulated transfusions should be performed in training scenarios. Units simply need to use common sense when notionally identifying a roster of LTOWB donors and ensuring that those Soldiers understand that they are identified as WBB donors.

For JRTC 25-10, 2-14 IN took 23 percent of our Soldiers with O-type blood and notionally identified them as LTOWB donors for WBBs. Each donor carried a replicated transfusion kit, consisting of plastic bags for collection bags, paracord for tubing, and food coloring for blood, and each subordinate unit had the donor list on their person for the exercise. For

further discussion of replicated kits and Ops Group adjudication, reference *The Crucible: The JRTC Experience* Podcast episodes filmed during the rotation.[4]

The Results

During JRTC 25-10, 2-14 IN had the brigade's best died of wounds (DOW) rate at 31 percent; however, with small adjustments, that number could have been far lower. The battalion experienced zero DOW casualties at its Role I, and the only casualties that died at higher levels of care than the unit in contact were those present during an attack at the Role II. Despite our best efforts to place blood as far forward on the battlefield as possible to conduct WBB transfusions, we sustained the greatest number of DOW casualties from the point of injury (POI) to the company casualty collection point (CCP).

The overwhelming number of casualties sustained during each engagement proved to be the largest factor that limited participation in the newly introduced prolonged casualty care adjudication tables. Though our LTOWB donors carried field-expedient, replicated transfusion kits, they were not used during treatment because the scale of casualties sustained in the platoons diverted all medical attention to triage and transport. Units need to replicate the scale of JRTC casualties long before their rotation. The number of casualties sustained at JRTC can cripple a unit in contact. Conducting a complete mass casualty (MASCAL) rehearsal at JRTC-scale during company and battalion-level situational training exercises (STX) is crucial. Units must experience losing 40-60 percent of their combat power to traumatic injury and train how to triage, treat, transport, and prolong the life and care of their casualties to be successful at JRTC.

2-14 IN's 31-percent DOW rate for all casualties, which generally occurred before patients reached higher levels of care, is nothing new. In a 2012 study of combat fatalities from Operation Inherent Freedom (OIF) and Operation Enduring Freedom (OEF) between October 2001 and June 2011, researchers determined that 87.3 percent of all injury mortalities occurred in casualties in the pre-medical treatment facility (pre-MTF) environment.[5] More than 90 percent of these casualties died of exsanguination or massive hemorrhage with only 25 percent of the pre-MTF deaths deemed potentially survivable (PS) through medical intervention.[6] The number one factor determining the outcome of combat casualties with PS trauma injuries is the "reduction of the time interval between the battlefield point of injury and surgical intervention."[7] Autologous blood transfusions and the activation of a WBB is the only way that BCTs can effectively extend the life of PS combat casualties by providing fresh whole blood. New evidence from the Joint Trauma Service suggests that the new "golden hour" for casualty care is 36 minutes between point of injury and the first blood transfusion, a measure that improves survivability of potential lethal injuries fourfold.[8] During JRTC, we averaged 20-30 minutes between time of injury and arrival of medics to an ambulance exchange point. If our evacuation and treatment medics at the Role I were the only medics to provide transfusions for trauma casualties, we would only have minutes to begin transfusion after casualties arrive.

Though our rifle companies did not employ replicated or actual WBB procedures before casualties arrived at the Role I, 2-14 IN tested the medical adjudication tables through true blood transfusions at the Role I. During the rotation, patient evacuation to the Role II was not always possible within the allotted two hours outlined by Operations Group. The standard JRTC medical adjudication table provides units one hour for casualties to reach the Role I from point of injury and another hour for units to evacuate casualties to the Role II. In past rotations, casualties that missed these key gates would be considered DOW. We were able to extend these thresholds by as many as four hours by simulating WBB activation through autologous blood transfusions. To our knowledge, our use of actual transfusion kits to draw and return blood was the first time that an RTU conducted WBB replicating transfusions during JRTC force-on-force fighting.

Evaluating how we arrayed leaders and senior medics and changing our emphasis on experience would have increased our survivability at the POI. We would have seen greater returns on DOW if we had placed our senior medics and most experienced medical personnel at the POI. Traditionally, the company senior medic remains with the first sergeant at the

A medic with HHC, 2-14 IN conducts prolonged casualty care by way of autologous blood transfusion mid-exercise. (Photo by 1LT Andy Cornelison)

company CCP while the more junior medics serve in the rifle platoons, closer to the POI. We found that our junior medics became overwhelmed by the sheer number of casualties at the POI, leading to incomplete tactical combat casualty care (TCCC), triage, and treatment before the unit had time to evacuate casualties. There was too much work and too many casualties that needed urgent care for a junior medic to process in a timely manner, leading to a higher DOW rate at the POI. Doing the exercise again, placing the most experienced medic at the point of greatest risk to force would unburden the forward elements and lead to more complete TCCC at the POI.

Our medics are proficient at TCCC, but treatment at the POI needs to be completed by all. Self-aid and buddy-aid are the primary and alternate means of treatment for one reason: Early intervention in trauma cases saves lives. We need to do a better job of training self-aid and buddy-aid at scale during our pre-rotational training. Platoon sergeants and squad leaders need to be involved in triage actions when medics are overwhelmed by massive casualty numbers.

2-14 IN maximized the number of medics on the battlefield by training Infantrymen unable to fully participate as ground combatants to operate the Field Litter Ambulance (FLA). By replacing FLA drivers with Soldiers, military occupational specialty immaterial, we added seven 68Ws to the fight to support medical treatment. This practice should be standard for units preparing for JRTC for two reasons: It improves your unit deployment numbers by filling needed roles within the formation with Soldiers who would otherwise occupy administrative positions, and it also places more medical personnel on the battlefield.

We fielded seven FLAs during JRTC, with eight FLAs operating out of our Role I. To prepare for additional casualty transportation requirements, we drew two additional Light Medium Tactical Vehicles from the JRTC prepositioned vehicle stock to support transportation in MASCAL events. This was a critical capability for the battalion, as we were able to receive, treat, transport, and return more than 120 casualties in a single night, preserving combat power for the next battle period.

Band-Aid Fix — Applying WBB Beyond JRTC

Activating the WBB cannot be a unit's sole avenue to providing whole blood to casualties on a battlefield; it is a time-sensitive bandage that will prolong life during urgent casualty care, but it has its limitations. A standard whole blood unit is one pint or approximately 450 milliliters. The American Red Cross recommends that donors wait 56 days between donations before providing another donation.[9] For reference, my company had 23 Soldiers identified as LTOWB donors during JRTC. If the WBB was our only source of whole blood, we would be limited to 23 units of blood for the monthlong exercise, with each donor needing an additional four weeks post-exercise to replenish blood for another donation. Preliminary studies show that Soldiers may provide two units of blood within a short timeframe and retain battlefield faculties; however, this practice is reserved for extreme situations, and the studies are few.[10] On average it takes between eight to 10 minutes to draw one unit of blood from a donor and from four to eight minutes to provide fresh whole blood to a patient.[11]

Most casualties sustained in the simulated LSCO of JRTC are gunshot wounds (GSW) and shrapnel wounds from indirect fires (IDF). These are particularly traumatic injuries where casualties may experience non-compressible hemorrhaging. Soldiers are trained to slow bleeding by applying the Combat Application Tourniquet (CAT), but no blood-loss prevention techniques are perfect.

Johns Hopkins University published a study in 2018 covering the number of whole blood units given to their patients between 2005 and 2017. The study concluded that patients presenting with GSWs were five times more likely to require blood transfusions than other trauma patients. Additionally, those patients required 1,000 percent more blood in transfusions than any other urgent patient without GSWs.[12] Johns Hopkins treated 2,672 GSW patients between 2005 and 2017. Each patient in the study required an average of 3.1 units of whole blood during damage control resuscitation/damage control surgery.[13]

During our battalion's final movement-to-contact at JRTC, our forward rifle companies seized ground at such a rapid rate that they quickly outpaced supply lines and invited a swift opposition force counterattack. The leading company suffered 95-percent casualties during the counterattack, the equivalent of 100 Soldiers. Many died of wounds immediately, but even if 25 percent of the casualties could have been treated through immediate blood transfusions and prolonged casualty care, the demand for whole blood would surpass the supply of the WBB. This means that a unit could consume all available donor units of whole blood through a WBB in one two-hour battle period.

The traditional understanding of MASCAL events involves sustaining more casualties than an organic unit can effectively treat, transport, and secure. During past operations, a MASCAL for a platoon could be four casualties. This is no longer an accurate understanding of the term. JRTC is designed to force units to react to enemy actions and pressures that mimic the reality of LSCO. A 95-percent MASCAL is the reality, and just like we adjusted how many water cans we filled and stocked at the combat trains command post to account for increased consumption during an August rotation, we must also adjust to a higher demand for whole blood on the battlefield. Combat units must have the capacity to transport and store CSWB on the battlefield to be successful in a MASCAL transfusion.

Blood Supply Paradox

WBBs are currently the emergency solution for providing fresh whole blood to Soldiers on the frontline. In current acceptable practices, WBBs only provide fresh whole blood that units can store for 24 hours at ambient temperatures. The

Armed Services Blood Program (ASBP) provides higher-level medical treatment centers with cold-stored whole blood that is titered and tested for transfusion transmissible diseases (TTD). Though the risk associated with using LTOWB during WBB transfusions is low for acute patient reactions, blood that is not screened for TTDs poses potential long-term risks to recipient health. ASBP CSWB is the preferred blood for transfusions because of this risk.

Figure 3 shows the blood transfusion priority list from a U.S. Navy Expeditionary Medical Unit (NEMU) that operated a Role II in CENTCOM in 2021.[14] The NEMU's priority list identifies the risk of TTDs as the main differentiator between CSWB provided by the ABSP and LTOWB provided by a pre-tested WBB. The issue with ABSP CSWB is its availability. Even in a Role II supporting an entire theater, there is typically only limited units of CSWB on hand, and the NEMU had to fight to cut the Role III out of that supply chain to mitigate time and transportation constraints.[15] All studies referenced in this article suggest that three to 10 units of on-hand blood will not be enough to treat the MASCALs that we expect to face in LSCO. The NEMU's planning factor for their WBB Program was that 50 donors could massively transfuse two to four patients with WBB donations.[16] This assumption was built for a Role II with the assumption that casualties would begin receiving additional blood transfusions at the point of injury from their parent units.

The next differentiator between ABSP units and WBB units listed on the NEMU chart is cold-stored vs. warm blood. Cold-stored blood is preserved through the anti-coagulating agents present in the blood collection bags. In the 1950s, medical professionals adopted a citrate-phosphate-dextrose (CPD) solution in blood collection bags that yielded a 21-day shelf life for blood stored between 2-4 degrees Celsius.[17] Though shelf life of CSWB was extended to 35 days through the 1978 introduction of citrate-phosphate-dextrose-adenine (CPDA-1) coagulants, CPD anti-coagulants are the most common in blood and blood products.[18] Blood must be stored at stable temperatures, posing a challenge for ground combat units. BCT Role I's have blood storage refrigerators as part of unit equipment. Maintaining a stock of CSWB at the battalion Role I buys back time for treatment because it removes the time and potential for confusion present during a WBB under fire. Medics need to bring CSWB to temperature before transfusion but have the necessary blood fluid warmers on hand to account for this.

It would be particularly helpful for units transitioning into periods of heavy fighting to have a surplus of CSWB on hand before initiating their operations. Though it takes weeks to replenish blood, it is a renewable resource. We produce our own blood internally. To those that would worry about potentially wasting CSWB by placing a surplus so far forward in a combat operation, removing the risks and costs associated with transporting CSWB is only one of the mitigating factors. Studies indicate that 86 percent of all donated CSWB expires before it is transfused.[19] I would argue that if most blood donations expire anyway, it is best to store that blood as close to the POI as possible if 36 minutes after time of injury is truly our transfusion goal.

1. CSWB (LTO) — transfusion transmissible disease (TTD) tested and received form ASBP. Supply was usually one to three units.

2. CT at 1:1:1. This option became available a few months into our deployment when platelets became available. Supply was generally limited to one unit of apheresis platelets.

3. Fresh warm whole blood (FWWB) from confirmed LTO donors tested for titers and TTD in the past 90 days.

4. FWWB from confirmed LTO donors tested for titers and TTD in the past year.

5. FWWB from LTO donors with titers and rapid TTD testing done in theater, but without confirmatory TTD tests.

6. FWWB from untitered O donors.

7. Type-specific FWWB.

8. Component therapy using fresh frozen plasma, packed red blood cells, and cryoprecipitate (not 1:1:1 because of lack of platelets)

Figure 3 — Example Blood Transfusion Priority List[24]

Buying Down Risk Levels

The only factor preventing units from taking fresh warm whole blood from a WBB and storing it as CSWB is the potential for the transmission of TTDs. Units are unable to conduct TTD screening at the POI, so any units of blood used in emergency blood transfusions would bear this same risk. Storing WBB as CSWB truly reduces the risk to force during autologous blood transfusions because it narrows risk factors to solely the communication of TTDs, taking the inherent risks of battlefield blood donation and the time it takes to procure blood out of the equation. The intent of WBBs is to provide and transfuse blood from a unit donor pool during combat operations. We cannot accept that risk on the one hand and completely disregard a more convenient method for that same transfusion on the other.

Units can reduce risk of TTDs in their WBB donor pool by conducting TTD testing during pre-deployment SRP operations. If units decide to prioritize WBBs in theater, a combination of TTD screening and full titer testing of their O-type blood would cost around $50,000 of unit funds.[20] This is a small price to pay for risk reduction. Additionally, adopting a blood transfusion priority list like the one used in the NEMU's WBB program would ensure that CSWB from a unit WBB would be only used when no ABSP CSWB was on hand. One of the unit blood refrigerators could be reserved for ASBP blood while the other stores unit donations. Each type of blood has the same shelf life, so in theory, blood donated from a unit WBB would last longer at a unit Role I because it is procured on site and has no transit time. While CSWB has a shelf life between 21 and 35 days depending on the anti-coagulant, studies show that CSWB undergoes platelet depreciation at around 28 days.[21] Maintaining an ample supply of CSWB at a Role I for one month would be a

massive improvement in the availability and accessibility of transfusion operations for combat units. Right now, the only thing that prevents combat units from pursuing solutions like this is our own risk tolerance rather than science.

Conclusion

The need for readily available and packaged whole blood on the battlefield is clear. LSCO introduces more combat casualty patients that require faster transfusions than ever before. As units transition their training focus and risk tolerance in maneuver operations from counterinsurgency to LSCO, the appetite for advanced and experimental medical strategies to combat increased casualty numbers must also transition and grow. Right now, the Army's appetite for maneuver risk is much higher than its appetite for medical risk, leading to an imbalance. Until walking blood bank operations are second nature, units must prepare for LSCO casualties by establishing WBB SOPs and building proficiency at combat training centers like JRTC.

Units preparing for JRTC will set themselves up for success by beginning to train on prolonged casualty care and WBB operations early in the training cycle. It works. Leaders and medics will experience the real-time feedback from their observer-coach/trainers who provide additional care hours for casualties when medics demonstrate the capacity for autologous blood transfusions and WBBs.

The walking blood bank itself is an acceptance of risk, and the potential for acute hemolytic transfusion reactions and TBB does not fully disappear with tested and titered blood. We accept and train for this risk in emergency situations to save lives already. The expansion of risk does not surpass the expansion of our medical capabilities in LSCO by attempting to store blood provided by WBBs as CSWB. We cannot let risk prevent us from preparing for the realities of our next fight.

Units of low-titer O whole blood are seen stored at an installation blood donor center. (Photo by Carl Norman)

Editor's Note: *As with all* Infantry *articles, the views expressed in this article are those of the authors and do not necessarily reflect the official policy or position of the Department of the Army, Department of War, or U.S. Government.*

Notes

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Where We Stand:

Position-Centric vs. Momentum-Centric Leadership

CPT NIKOLAS BALDWIN

On Bananas

He who fails to keep turning
the wheel here set in motion
wastes his life in sin,
addicted to the senses.

— The Bhagavad-Gita[1]

"Good luck man, you'll need it." With those parting words, fellow platoon leader 1LT Brave left me at the base of the imposing ridgeline. He had received the same task during the previous iteration of the culminating exercise. In less than 12 hours, my platoon would participate in a second, final force-on-force scenario, during which we would defend the brigade tactical operations center (TOC). Before he left, Brave helpfully guided me across the ground where his platoon was wiped out the day prior. It was not hard to see why — there was too much ground for one platoon to cover with direct fire, and heavy foliage paired with steep, unpredictable elevation changes offered an approaching force plenty of cover and concealment. In fact, the more I inspected the terrain that would become my engagement area, my chief concern became how easily the enemy might bypass us and head straight to our TOC. My Strykers and their crews would have to remain in hide sights at the base of the ridgeline. I asked my platoon sergeant to stay with the trucks to communicate with higher headquarters via the Joint Battle Command-Platform (JBC-P). I was left with two squads and two gun teams to defend a ridgeline system spanning about five kilometers.

If I evenly distributed my combat power, it would be impossible to sufficiently cover each likely enemy avenue of approach. If I broke down my platoon into smaller elements to cover additional avenues of approach, they would lack the capability to destroy or even fix the expected enemy platoon. We would not be able to find, much less defeat, our enemy if I arrayed my forces with the intent to fight from static positions. I distributed 3 three-man observation posts (OPs) across the ridge system where they had the best observation and direct-fire capabilities on avenues of approach. My orders to them were to fire only when found and to call for fire to cover their retrograde. The rest of my Soldiers were concentrated with me at the centermost position of my element — this would be my mobile killing force. My OPs would find the enemy and determine their route, which would allow my mobile element to rapidly posture to conduct a hasty interdicting ambush. The nearest OP, likely located behind the enemy, would move to support the mobile element with reinforcing fires upon the enemy's flank or rear.

(Photo by SGT Rachel Christensen)

After hours of waiting, around 0200, one of the OPs made visual contact with the enemy. We spotted at least two squads heading straight down what we had assessed to be their most likely avenue of approach; they would pass by less than 600 meters from our mobile force's position. I radioed my platoon sergeant to tell our company commander via the JBC-P that I had found the enemy and was ready to engage.

My radio-telephone operator began to scan my face with a worried expression. A recent graduate of the Stryker Leader Course and Infantry Basic Officer Leader Course, I had only been a platoon leader for two months. Our commander was a great leader and combat veteran. Despite my limited experience, he never micromanaged me and fostered a climate where I could be confidently autonomous. But the last platoon who fought the same element on the same ground was destroyed, and my element was overextended and vulnerable. There could also be more enemies elsewhere in my area of operations that I had not found. Waiting would allow me to collect more information on the enemy's composition and route. I would be able to call for a fire mission or call back my other OPs to mass more combat power from a consolidated defensive position. If I had taken more time to think all of this through, which I admittedly did not, I might have concluded that waiting was the right move.

I felt a bit queasy. I knew that at any moment my platoon sergeant could inform me that the battalion scouts we were expecting to relieve us were on their way. But I was not on that ridgeline to get the best view of the enemy as they bypassed me. I was there to stop them, and the only way to stop them was to engage them. We silently rushed to gather what we needed and set off to the ambush point. The enemy would walk straight up out of a valley into our squad, arrayed along the spine of the ridgeline. We opened fire when the enemy got within 30 meters. One of my squad leaders led his OP team back and fell upon the flank of the enemy 30 seconds after the initial burst. We completely destroyed the enemy with only two casualties; we retained control over the ridgeline and protected the TOC until relieved by the scouts.

Werner Heisenberg's Uncertainty Principle states that the more precisely you determine a particle's position, the less precisely you can determine its momentum.[2] More simply, you can measure a particle's position or its speed, but not both. There is always great danger in applying scientific theorems beyond prescribed bounds. A platoon is not a particle of light, but just as a particle has both position and momentum, so does a Soldier. Soldiers are given a task and purpose. The purpose informs the task, but the commander's intent cannot materialize without action. There was no position I could have taken or piece of information collected on that ridgeline that would have accomplished my task. The only way to win was to find the enemy and destroy him. Merely orienting oneself towards reality cannot achieve victory. In the clash of wills that is warfare, reality must be shaped with action.

Risk-averse cultures and technological advances encourage leaders to be position-centric. But warfighters must be momentum-centric, empowered to act aggressively and creatively in the face of immense risk and the reasonable expectation of fast-approaching new information.

Many Army leaders have heard of "analysis paralysis" or the OODA (observe, orient, decide, act) Loop, coined by Air Force fighter pilot John Boyd.[3] Much of Boyd's work centers on his belief in the superiority of Sun Tzu's military theory over Clausewitz. Whereas Clausewitz focuses on minimizing one's own friction or "fog of war," Sun Tzu focuses on maximizing the enemy's friction. According to Boyd, "Sun Tzu tried to drive his adversary bananas while Clausewitz tried to keep himself from being driven bananas."[4] Clausewitz and Sun Tzu understood that warfare is a rapid series of overlapping conversations, each with their own rhythm. Whereas Clausewitz focused on what is exchanged within one's own army (mission command, etc.), Sun Tzu focused on what is exchanged with one's enemy. What we articulate to our leadership, peers, subordinates, and ourselves is ultimately irrelevant if we fail to articulate to our enemy that they are defeated. The simplest way to let an enemy know they are defeated is by killing them, but one can also accomplish this by disintegrating their will through maneuver. And all maneuver, whether physical or psychological, is momentum made manifest.

There are two types of leadership: position-centric (PC) and momentum-centric (MC). Position-centric leaders prioritize orienting towards reality with information. Momentum-centric leaders prioritize shaping reality with action. Position-centric leaders view the enemy as an obstacle to navigate around, while momentum-centric leaders see the enemy as a target to shape. Risk-averse cultures and technological advances encourage leaders to be position-centric. But warfighters must be momentum-centric, empowered to act aggressively and creatively in the face of immense risk and the reasonable expectation of fast-approaching new information.

The Slow and The Whipped

My center is yielding. My right is retreating. Situation excellent. I am attacking.

— Ferdinand Foch[5]

On 27 July 1861, a 34-year-old George McClellan assumed command of what would be dubbed the Army of the Potomac to immense public enthusiasm.[6] Within three months, he would become general-in-chief of the Armies of the United States, tasked with defeating the Confederate armies and compelling the rebels to surrender. McClellan graduated second in the star-studded West Point class of

1846, a third of whom would serve as generals in the American Civil War.[7] Before McClellan had even reached Washington to accept his appointment, the press lavished him with praise and support. The public called him "the Young Napoleon," his troops loved him, and President Lincoln congenially called him George.[8] McClellan was a charming man of boundless energy, as well as a genius organizer and logistician. He never stopped working and radiated an infectious calm, cool competence. In a matter of months, he transformed the ragged, unmotivated, and undisciplined Army of the Potomac into a highly drilled and confident military force ready for war. Yet McClellan would not be the general to lead these men to victory. Lincoln would remove him as general-in-chief by March of 1862 and then from command of the Army of the Potomac that same November. McClellan would come to be widely regarded as one of the worst, if not the worst, Union general.

General George McClellan

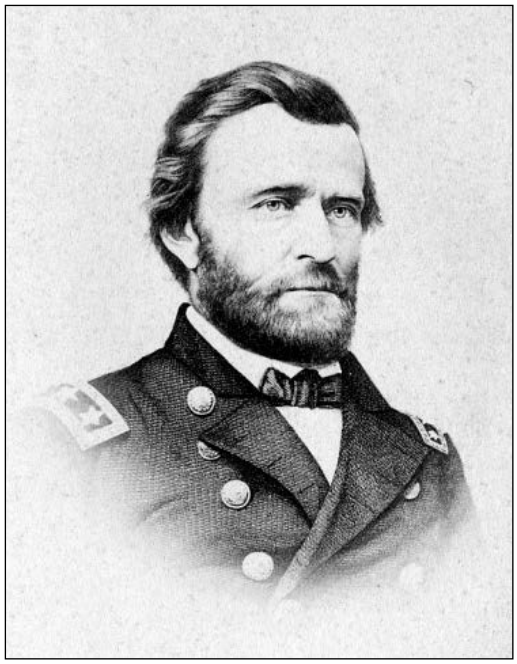
How did such a brilliant, energetic, and personable leader's military career end so disastrously? McClellan was far from perfect, but his worst quality was summed up best by Lincoln himself: George had "the slows."[9] McClellan had immense reserves of knowledge and personal discipline but routinely struggled to make bold or aggressive decisions. His intelligence and eloquence allowed him to justify indecisive or timid strategies. McClellan's leadership during the Peninsula Campaign from March to July 1862 best illustrates his endemic overcaution and failure to take initiative. He planned to capture the Confederate capital of Richmond by moving his army by water to the Virginia Peninsula, landing between the James and York Rivers and then marching 50 miles northwest into the city. This plan to take Richmond sounded aggressive, but it completely relied on unrealistic Confederate passivity.[10] The amphibious landing would ignore a Confederate army under General Albert Johnston only 25 miles away from D.C. in Manassas. McClellan hoped to reach Richmond from his landing site before Johnston could retrograde his army south to reinforce it.

Lincoln and many other generals wanted to fight Johnston's army head-on, but McClellan justified his plan by hugely overestimating Confederate manpower. His spymaster Allan Pinkerton reported that the rebels had 115,000 men and 300 field guns in Manassas. In reality, there were no more than 60,000 men. McClellan always accepted the most pessimistic reports without performing additional reconnaissance, and therefore assumed the enemy was more than twice its real strength.[11] McClellan's preparation for his amphibious operation took so long that Johnston was able to withdraw from Manassas to a stronger defensive position unchallenged. When he heard the news, the Young Napoleon drew up his magnificent new army and marched them into Manassas as though they had captured it through force of arms. They found neither the imposing earthworks of a 115,000-man army nor remnants of formidable artillery positions. Instead, they found "Quaker guns" — wooden logs painted black to resemble cannons because the confederates had so few.[12]

Over the next two and a half months, the Army of the Potomac landed at Fort Monroe (the original landing site was no longer tenable due to Johnston's new position) and began plodding the 70 miles towards Richmond. Yorktown was the first major rebel town obstructing their path, held by approximately 15,000 Soldiers under General John Magruder. McClellan's chief engineer found a vulnerable seam in the Confederate defenses that would afford Union forces an avenue of approach to Yorktown relatively free from cannon fire. Incredibly, McClellan had made up his mind to not attack even before his reconnaissance had returned, writing "I must use heavy artillery & go through the preliminary operations of a siege. The reconnaissances of tomorrow will enable me to form a pretty correct judgement of what I have to meet & the best way of overcoming the difficulties before me."[13] The reconnaissances of tomorrow are always foremost in a position-centric leader's thoughts. It is easier to think about future thinking than it is to make a decision. McClellan refused to assault a force less than one-fifth his size and inferiorly equipped (though they had plenty of Quaker cannons). The rebels themselves were surprised McClellan refused to attack. Johnston dryly remarked that McClellan "seems not to value time especially."[14] McClellan would have gawked at this; after all, he did more in each day than perhaps any commander of the age! But McClellan ultimately failed to see that he was preparing to prepare instead of preparing to fight.

McClellan was brilliant at everything in war except the business of fighting it. One could imagine his immaculate biweekly situation reports. Lincoln was at first too new to the presidency and especially military strategy to push back against the Young Napoleon. Eventually, McClellan's compounding failures to defeat the Confederate army and exploit opportunities gave Lincoln the confidence to fire him. Lincoln realized with horror that McClellan's position-centric mindset had begun to infect his staff officers and Soldiers: "General McClellan is responsible for the delusion that is intoning the whole army — that the South is to be conquered by strategy."[15] It would take the President another two years of brutal, inconclusive warfare before he would find a momentum-centric leader that suffered no such delusions.

A year before McClellan rode triumphantly into the capital to accept his appointment as general-in-chief, another man walked with his typical no-nonsense stride into the leather goods store where he clerked for his younger brothers. In 1860, 36-year-old Ulysses S. Grant was nearly destitute, selling leather in the shop run by his younger brother Orvil.[16] Grant had graduated from West Point in 1843, ranked 21st out of 39 in his class. He went on to serve brilliantly in the Mexican-American War, but demoralizing post-war assignments and a struggle with alcoholism led him to resign and enter civilian life by 1854. For the next seven years, Grant struggled to financially support his young family, failing at multiple business ventures. Eventually his father offered him a position in his leather goods business, where Grant served customers, handled paperwork, and collected bills up until the Civil War's outbreak. Less than four years later, on 2 March 1864, Grant would take McClellan's old job as commander of all Union armies; he would accept the Confederacy's surrender just 13 months later.



General Ulysses S. Grant

Grant's first major victory in the Civil War, the siege of Fort Donelson, proved a definitive showcase of what made him capable of leading the Union to ultimate victory. Midway through the battle, Confederates under Generals Gideon Pillow and Simon Buckner launched a surprise breakout which collapsed the Union right flank.[17] Instead of ordering a withdrawal, Grant immediately rode to reorganize the retreating Soldiers and assess the enemy's intentions. Many of the rebel Soldiers who were part of the breakout attack carried haversacks with three days' rations. Grant correctly ascertained that the rebels wanted to cut their way out and had no intention of staying to fight. Historian Ron Chernow suggested that Grant's background of failure left him finely attuned to the mentality of defeat.[18] Grant acknowledged the low morale of his own forces, but he told a staff officer "the enemy must be more so, for he has attempted to force his way out but has fallen back; the one who attacks first now will be victorious, and the enemy will have to be in a hurry if he gets ahead of me."[19] Grant believed that rebel strength on the Union right meant rebel weakness on the Union left and ordered a counterattack that routed Confederate forces back into the fort.

What could Grant do that no other Union commander could? That is the wrong question. Grant did not crush the Confederacy by doing what no one else could do. Grant crushed the Confederacy by making choices that others could but were unwilling to make. Union Colonel and quartermaster James Rusling once observed Grant approving a request for a major expenditure after almost no time to think. When Rusling asked if he was sure, Grant said that he was not, "but in war anything is better than indecision. We must decide. If I am wrong we shall soon find it out, and can do the other thing. But not to decide wastes both time and money and may ruin everything."[20] Adam Badeau, one of Grant's staff officers, wrote of his decisiveness during the May 1864 Battle of the Wilderness. If Grant was confronted with an incredibly important decision, "it was made and uttered instantly, and unflinchingly, though it involved the fate of a corps. At these supreme moments, the dullest perceived his intensity, the most unwilling admitted his power."[21] Grant was willing to make enormous decisions on very little information and nearly no time to think. Not because he was glib, careless, or reckless, but because he understood that leadership is about deciding what to do, not finding a piece of information that makes the decision for you.

Momentum-centric leadership does not come without cost; many of Grant's campaigns were incredibly bloody and full of momentary failures, mistakes, and carnage. Yet Grant never let a mistake or setback divert his focus. A Confederate soldier wrote in his journal that in Grant they had "met a man this time who either does not know when he is whipped, or who cares not if he loses his whole Army, so that he may accomplish an end."[22] Grant refused to be intimidated by his enemy and sought to demystify the formidable reputation of Robert E. Lee, commander of the Confederate Army. When a Union general began babbling in Grant's presence about Lee's prowess, Grant leaped to his feet and chastised the officer: "Oh, I am heartily tired of hearing about what Lee is going to do… Go back to your command, and try to think what we are going to do ourselves, instead of what Lee is going to do."[23] Momentum-centric leaders are willing to risk and suffer significant injury or failure in pursuit of victory and understand that before death, all defeat is psychological. That is why Grant consistently made decisions with the primary intent to impose a psychological effect, rather than McClellan's focus on physical positions. Position-centric leadership can look incredibly reasonable, seemingly effective, and popular. The only thing it cannot do is win. Conversely, momentum-centric leaders can look reckless and bloodthirsty. Unfortunately, war is not a sober clash of sensibilities. Victory is not predicated on who has the most refined perception of circumstances, but on who is most able and willing to shape circumstances in the absence of time or certainty.

Comparing McClellan to Grant highlights a key difference between position-centric and motivation-centric leaders: their understanding of the relationship between risk and trust.

Position-centric leaders believe trust is something given in spite of risk, but momentum-centric leaders believe trust is something given because of risk. In other words, **risk is a prerequisite to trust, not an obstacle**. People who see risk as a prerequisite to trust can operate boldly and creatively, while those who see risk as an obstacle to trust can only pursue victory "to a point," that point being the safety of an imperfectly calculated risk threshold. But the safest course of action in a crisis usually appears the most dangerous. The safest way to climb a breaking wave is head-on. Yet history is replete with brilliant minds who would save face at the cost of time and blood.

Risky Shift: What Story Are We Telling?

The grip for combat and for sword-testing is the same. There is no such thing as a "man-cutting grip.'

— Miyamoto Musashi[24]

Leaders in our Army today confront a battlefield of immense and ever-increasing complexity. I believe this fact is hammered into our officer corps ad nauseum not because it is an uncomfortable truth, but because it is an extremely convenient deception. In military terms, it is a demonstration, a show of force to the truth without engagement. Only a fool would deny that the modern battlefield is more complex than ever; it takes a bigger fool to accept the ever-encroaching implication in our military culture that the **primary** purpose of leadership in warfare is to reduce complexity. It was often very useful to have the Soldiers of my platoon understand what we were doing, and it was even more useful the handful of times I understood what we were doing. But the effect my platoon would have on the enemy is not defined by our self-knowledge or our knowledge of anything in particular. Our effect on the enemy is ultimately determined by what we manage to project, not what we manage to perceive.

That is why the ultimate purpose of leadership is to tell a story. In war, the ultimate audience for your story is the enemy. The story we should be trying to tell in war is called "I am here; you cannot be." It is a simple story; it can be told with a bullet. For many years, it was chiefly told with a stick. There are many new variables on today's battlefield — new technologies and domains, but the story has not changed. It is the same story McClellan failed to tell with parades and Grant articulated beautifully with gunpowder. McClellan failed to tell the story because he was only ultimately ever talking to himself: "I am here, and soon I will be more here." Position-centric leadership is seductive because it is subtly and comfortingly egotistical. You are the author and audience. Momentum-centric leadership is uncomfortable because it is obnoxiously social and therefore unpredictable, abrasive, and messy. Grant was always reaching out to touch his enemy in whatever way he could. General William Sherman once said that while most generals attack the front porch, Grant attacks the kitchen and bedroom.[25]

Grant's risk-positive attitude allowed him to exploit opportunities that position-centric leaders would never see from the front lawn. His assaults would sometimes fall upon the enemy's physical center, but his target was always their psychological flank. It is natural to focus on the physical circumstances, both the disposition and composition of opposing forces. Humans pay attention to the borders most readily apparent, whether those be lines on a map or the end of a battleline. But whereas position-centric leaders focus on developing or discerning obvious physical borders, momentum-centric leaders focus on destroying the enemy's will to fight and are willing to accept immense risk to do so. These leaders understand that hitting the enemy's psychological flank often necessitates exposing your physical flank. In a violent clash of wills, this is a good trade.

Today, many Army leaders are primed by their organization to be risk-averse and favor timidity over aggression. For example, deliberate risk assessment worksheets (DRAWs) are a good forcing function to make sure leaders are mitigating risk with due diligence. But the effect of a DRAW, particularly on platoon leaders who in peacetime are evaluated largely on the safety and smoothness of their assigned operations, primes them to minimize risk, not mitigate it. Many platoon leaders receive their company commander's Command Supply Discipline Program (CSDP) policy at the same time as their initial counseling. The counseling which outlines a commander's priorities, vision, and leadership philosophy is usually around two pages. The CSDP is usually at least twice that long. Junior leaders are thereby immediately cued to prioritize protecting equipment instead of employing it. This also primes leaders to feel that stewarding property is of equal importance to leading Soldiers. Our job as leaders is not chiefly to minimize risk — our job is to train and lead our force so that it defeats our enemies on the battlefield. We should rather endure a financial liability investigation of property loss (FLIPL) than the thought that our Soldiers are less lethal because we reduced the scope or complexity of training in order to minimize risk or maximize our officer evaluation reports. But leaders must be able to say even more than that; they must be able to accept an elevated risk of Soldier injury or death in pursuit of combat readiness. It is easy to pass the burden of realistic preparation on the future wartime leaders. It is easy, it is cowardly, and eventually, it will prove deadly. Every group determines its own risk acceptance threshold. As one becomes accustomed to certain conditions, one considers them less risky, a phenomenon known as "risky shift."[26] We need to execute a risky shift in our Army. Our risk acceptance threshold is at direct odds with the task we are preparing for.

It is immensely comforting to believe that the "right" answer is findable through information, because information is increasingly within reach. Of course, some elements of a military force should be oriented towards position (information collection). But the frantic speed of information flow on the modern battlefield creates a reasonable expectation that more decision-shaping information is just around the corner, one JBC-P message or MAVEN layer away. This naturally incentivizes leaders to delay deci-

sion-making and allows less aggressive or decisive leaders to justify not moving. The increasing volume of information available to leaders thereby acts as a paralytic instead of an enabler. Leaders will know that if they choose to attack now, their decision could be invalidated by new information any second. Additionally, the permanent nature of digital information flow will show a clear record with which to bury leaders if their decision ends in failure or casualties. Leaders must beware of the word "efficiency" and especially "optimization." There is nothing optimized about choosing the scared private first class to throw a live grenade from the prone at a bunker entrance during a live fire. It is the inefficient, DRAW-phobic behavior of a formation that seriously prepares to defeat their enemy.

One can rest on a bed of nails, but not *a* nail. If we are told our problems are countless, it absolves us of the responsibility for counting them. We will simply find something to do the counting for us. Technology does this well, but in the frantic rush to simplify our choices with technology or doctrine, we must not "streamline" or "optimize" the choice out of our choices. The only thing worse than abdicating our decisions to the future is to abdicate them to an outside algorithm. We can fire the next McClellan, but once we are ready to entrust machines with choices of mass life-or-death, will we ever be ready to reclaim them?

Napoleon's soldiers would brag that he won battles with their feet; they never mentioned his maps. Doubtless his men appreciated the sophistication behind his planning, but their boast revealed an intrinsic understanding of what truly made Napoleon and his army special. Victory in war is found in the way things move, not the way they stand. But in an army that ceaselessly demands Soldiers report where they stand, leaders are increasingly invited to believe that the greatest mistake is to lose one's footing. In fact, they will not be leaders until they lose their footing. We lose our footing each time we take a step.

Notes

[1] B.S. Miller, trans., *The Bhagavad-Gita: Krishna's Counsel in Time of War* (New York: Bantam Books, 2004).

[2] David Lindley, *Uncertainty: Einstein, Heisenberg, Bohr, and the Struggle for the Soul of Science* (New York: Anchor Books, 2008), 4.

[3] Robert Coram, *Boyd: The Fighter Pilot Who Changed the Art of War* (New York: Back Bay Books/Little, Brown, 2004), 324.

[4] Ibid., 332.

[5] Geoffrey Norman, "September 1914," *The Weekly Standard* (8 September 2014), https://weeklystandardarchives.com/articles/september-1914/.

[6] Chester G. Hearn, *Lincoln and McClellan at War* (Baton Rouge, LA: Louisiana State University Press, 2012), 37.

[7] Edward H. Bonekemper III, *McClellan and Failure: A Study of Civil War Fear, Incompetence and Worse* (New York: Bloomsbury, 2007), 4.

[8] Hearn, *Lincoln,* 36-7.

[9] Ibid., 4.

[10] Ibid., 77.

[11] Ibid., 78.

[12] Bonekemper, 48.

[13] Ibid., 59.

[14] Hearn, 79.

[15] Ibid., 205.

[16] Ron Chernow, *Grant* (New York: Penguin Books, 2018), 114.

[17] Ibid., 180.

[18] Ibid.

[19] Ibid., 181.

[20] Ibid., 330.

[21] Ibid., 381.

[22] Ibid., 395.

[23] Ibid., 382.

[24] Miyamoto Musashi, "Go Rin No Sho: The Book of the Five Rings", https://cdn.britannica.com/primary_source/gutenberg/PGCC_classics/fivering.htm#1_2_4.

[25] Ibid., 517.

[26] Ben Shalit, *The Psychology of Conflict and Combat* (New York: Praeger, 1988), 114.

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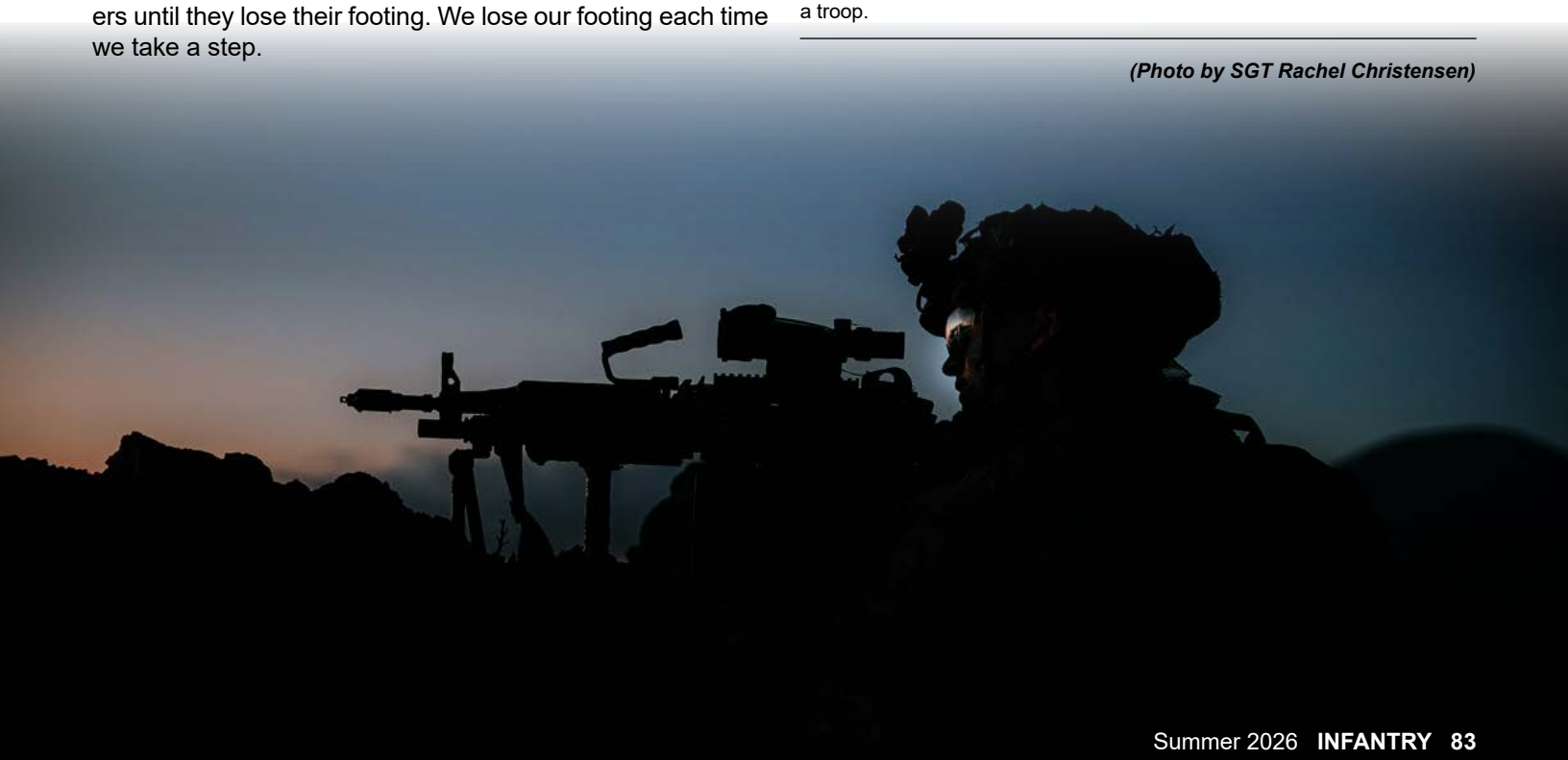
(Photo by SGT Rachel Christensen)



Ghosts of 11Ms and Panzergrenadiers:

Mechanized Infantry Tactics for the Modern Battlefield

MAJ PATRICK O'KEEFE

Mechanized infantry is a unique formation type conducting fundamentally different operations from light or Stryker infantry, and they cannot be expected to fight the same way. The U.S. Army treats its mechanized infantry formations largely as interchangeable with its light and Stryker formations. Moving Soldiers between formation types, the Army both formally and informally expects that infantry employment at echelon is the same. This is further codified by the introduction of the 19C military occupational specialty (MOS) and separate armor and infantry platoons within mechanized infantry companies, severing the link between Infantrymen and the crews and vehicles which carry them into battle both on an MOS level and a formation level. Infantry platoons and squads in armored brigade combat teams (ABCTs) now look identical to their light counterparts, at the cost of the infantry fighting vehicle (IFV) crews now being "others" with their own leadership, training, and, most importantly, understanding of the battlefield. With this direction, we are at risk of losing the understanding that mechanized infantry are not interchangeable with other types of infantry — they perform a different function and require different thinking.

Above, Soldiers assigned to the 3rd Armored Brigade Combat Team, 4th Infantry Division dismount a Bradley Fighting Vehicle during a squad live-fire exercise at Drawsko Pomorskie, Poland, on 13 July 2022. (Photo by SGT Tara Fajardo Arteaga)

Mechanized infantry leaders must adhere to three imperatives:

1) Employ mechanized infantry only in missions which support mechanized maneuver.

2) Fight mounted for as long as the enemy and terrain situation allow.

3) Avoid becoming decisively engaged for extended periods of time.

These imperatives may seem common sense, but practice often breaks them. When comparing mechanized to light and Stryker formations, Stryker formations often cannot and should not fight mounted due to the lack of armor and armament inherent to Stryker platforms, while both light and Stryker formations intend deliberately for their infantry to become decisively engaged on major objectives. Emergent technologies including first-person view (FPV) one-way attack drones, small unmanned aerial systems (sUAS) fielded at the platoon and squad levels, and robotic ground combat

vehicles (RGVs) can enhance the efficiency of mechanized infantry and maximize their effectiveness in adherence to these three imperatives.

Employ Only in Support of Mechanized Maneuver

Mechanized infantry units have a fundamentally different purpose than light or Stryker infantry formations. In those units, infantry forms the core of the brigade's combat power, bringing more than 1,100 dismounted Infantry Soldiers to a fight. An armored brigade combat team has more than 330 dismounted Infantry Soldiers. On numbers alone, mechanized infantry cannot be expected to conduct the same missions for the brigade as other infantry units.

In ABCTs, the infantry companies' purpose is to support mechanized operations, primarily the maneuver and attack by armor companies. For this reason, mechanized infantry in ABCTs should only ever be employed in support of those operations. Mechanized infantry should not conduct attacks to seize terrain simply for the purpose of holding it. The reduction of isolated pockets of dismounted enemy resistance, even if equipped with anti-tank weaponry, is likewise not a suitable task for mechanized infantry; if the armored forces can bypass the relatively immobile enemy by staying outside of their maximum engagement lines (MELs), then the enemy should be identified, marked, and passed on to a follow-on unit or destroyed with fires. Emergent exigencies of combat may require mechanized infantry to fight in suboptimal situations or situations outside those described below. Those are the realities of warfare; however, leaders should not deliberately plan to employ their forces in that manner.

There may be situations in which enemy forces threaten the armor's ability to advance and require the commitment of dismounted infantry. The most common is when enemy dismounted forces armed with anti-tank weapons hold complex terrain with sufficient protection to prevent their destruction by massed direct and indirect fire. As seen in Ukraine, forces in the defense employing anti-tank guided missiles (ATGMs) and FPV drones en masse have the potential to stifle mounted maneuver in the absence of effective combined arms.[1] While emergent counter-UAS (C-UAS) capabilities and currently fielded capabilities including hard-kill active protection systems (APS) such as Trophy and Iron Fist (not available to the combatants in Ukraine) greatly enhance mechanized survivability against FPV drones and ATGMs and thereby enable mounted maneuver, they do not give commanders and planners license to ignore the real threat of these systems. C-UAS and APS should be viewed as a last line of defense. In a situation where enemy anti-tank teams threaten continued mechanized movement, only close combat by dismounted forces is likely to enable continuation.

Mechanized infantry should avoid fighting in built-up areas due to the high attrition and slow tempo of urban combat. Maintaining and controlling tempo is one of an armored formation's greatest benefits, and the low number of Infantrymen in an ABCT makes them extremely vulnerable to attrition. If the situation dictates that a mechanized formation must enter a built-up area to eliminate enemy capable of impeding its advance, the commander should maximize the use of direct and indirect fire to reduce the enemy strongpoints rather than clearing them with Infantrymen. sUAS and FPV drones are critical force multipliers in this effort. Dismount squads can employ their sUAS to both initially identify the location and protection of enemy anti-tank teams and employ FPV as low-signature precision strike fires to eliminate anti-tank teams and fortified positions without committing to costly clearances — and sometimes without even dismounting.

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A second use for mechanized infantry is to move through complex terrain which enemy forces are likely not occupying but through or beyond which observation and fields of fire for mounted forces are restricted. Dismount squads can move rapidly through this terrain to gain observation and fields of fire on the far side, thereby establishing overwatch for the armor to advance. In many cases, this requirement can be reduced or offset through the employment of sUAS. By launching these systems from cover or from vehicles prior to dismounting, infantry can conduct terrain reconnaissance, observe enemy movement, and confirm or deny the presence of anti-tank teams. This reduces risk and preserves tempo.

Another suitable mission for mechanized infantry is to clear and secure the terrain surrounding areas recently seized by armor. This is to eliminate any enemy dismounted forces which may have gone to ground and still pose a threat to the mounted element. Once the terrain is clear, the infantry establishes dismounted battle positions to defend against enemy attempts to close with friendly armor and engage them at close range during counterattacks. Where available, RGVs armed with machine guns or sensors can amplify the infantry's effectiveness by identifying and engaging residual threats as well as drawing enemy fire from concealed positions. sUAS and FPV drones likewise extend the reach of the infantry's ability to identify and strike enemy counterattacks.

A fourth, less common and often ignored, use for mechanized infantry is to infiltrate them to seize intermediate objectives prior to movement of the main body. This is an effective option when the enemy possesses an advantage in terrain and standoff close to the line of departure. Infiltrating infantry to attack these enemy positions prior to main body movement capitalizes on the infantry's relatively low profile and the enemy's likely focus on identifying and engaging vehicles. This mission presents significant risk as it sepa-

rates the infantry from their vehicular support, but success can gain armored forces incredible freedom of maneuver and maximize surprise and audacity. Proper planning for this mission includes identification of appropriate infiltration routes for the infantry, detailed and deliberate engagement and disengagement criteria, and careful coordination with the main body and supporting indirect fires if the infiltrating element is compromised short of its objectives.

Within these missions, the identification of the proper times to transition between mounted and dismounted maneuver is critical due to the low density and therefore limited endurance of ABCT infantry formations.

Fight Mounted as Long as Terrain and Enemy Allow

Infantry forces are incredibly vulnerable during offensive operations. With their lighter armor and inability to fire ATGMs on the move, IFVs cannot operate with the same aggression as armor. For this reason, they will normally operate to the rear of tank units during the offense. Additionally, the loss of an IFV to direct or indirect fire incurs the potential loss of the dismounts the vehicle is carrying. The infantry formation is vulnerable during the deployment of its dismounts and any subsequent dismounted operation. The vehicles, likely mostly stationary, can become easy targets for enemy direct and indirect fires during the relatively slow process of a dismounted attack.

Soldiers assigned to the 1st Armored Brigade Combat Team, 3rd Infantry Division maneuver a Bradley Fighting Vehicle during a combined arms live-fire exercise at the Grafenwoehr Training Area on 29 July 2025. (Photo by SGT Cody Nelson)

The advantages that mechanized infantry units have over their Stryker and light counterparts are the firepower, mobility, and protection of the IFV. Mechanized infantry can move farther faster and employ shock tactics which are unavailable to other infantry. As previously discussed, dismounts are employed in terrain which is unsuitable or unfavorable to the mounted elements. It is highly likely that supported mounted forces will be stationary, or have their speed drastically reduced, while infantry conducts dismounted operations. Armored formation leaders must take pains to carefully determine the appropriate dismount points to minimize the time and tempo lost when employing their infantry dismounted. The driving question should be: "How long can my infantry fight mounted?"

While all mission variables impact this answer, the two primary to consider are terrain and enemy. With regards to terrain, leaders must balance the need for protection with a requirement to minimize the distance the infantry covers on foot. When deploying dismounts, especially to clear restrictive terrain, the IFVs will likewise be physically limited by that terrain. Ideally, IFVs should not deploy their dismounts in open terrain relative to the terrain to be cleared. This leaves the vehicles and dismounts both vulnerable to direct fire during the dismount process. Identification of intervisibility (IV) lines relative to the objective is therefore a critical aspect of planning for dismount points.

The enemy is the second mission variable which dictates how long infantry can remain mounted. Infantrymen dying in the back of armored vehicles prior to dismounting occurs often at the National Training Center and is primarily due to the failure of leaders to properly identify the probable line of contact (PLOC) and take effective steps to mitigate the enemy's MELs. Identification of the PLOC begins with proper enemy analysis during the military decision-making process and troop leading procedures, with enemy MELs depicted accurately and taking inner visibility lines into effect. Once infantry cross the line of departure, their use of sUAS is a critical measure in support of confirming the PLOC and refining suppression targets. Combined use of sUAS and fires including FPV drones enables suppressing, disrupting, or destroying enemy positions just as the mounted element crosses enemy MELs.

In the mechanized fight, enemy MELs are commonly several kilometers out from enemy positions, up to five kilometers for some ATGMs.[2] Failure to accurately identify these MELs results in the death of dismounted infantry while still mounted. However, the alternative some units employ is dismounting their infantry beyond enemy MELs in an attempt to change the paradigm of the engagement. This is normally as unacceptable as driving into the MELs, as the amount of time and tempo lost conducting a several kilometers-long dismounted movement defeats much of the purpose of mechanized infantry, not to mention the direct and indirect contact the dismounts will likely encounter during movement.

In the search for an ability to fight mounted for as long as possible, leaders must bring combined arms to bear

against enemies fighting from positions of advantage. Army Techniques Publication (ATP) 3-90.1, *Armor and Mechanized Infantry Company Team*, discusses the use of increased speed, increased dispersion, and the employment of both suppressive and obscuring indirect fires to close the distance on an enemy with range and position overmatch.[3] These elements are not suggestions — they are requirements. Suppression and obscuration targets from mortars and/or field artillery must be plotted on known and suspected enemy locations during planning and initiated prior to the mechanized infantry entering the MELs. As mechanized infantry enter MELs, they must increase their rate of march as much as possible and increase their lateral dispersion as much as the terrain allows. When combined, these elements enable the infantry to deploy as close as possible to the objective while minimizing the loss of time and tempo associated with dismounted assaults. RGVs can also serve as the lead element to cross within enemy MELs, drawing fire from enemy anti-tank teams or confirming their absence before manned IFVs commit. When drawing fire, RGVs can provide suppressive direct fire, and this two-way fire can reveal the enemy's positions to cue direct or indirect fire from the remainder of the formation, including precision strikes from FPV drones to rapidly enable the mounted element's maneuver.

Equally as important as maximizing mounted time before the assault is consolidating and remounting upon conclusion of the assault. Planners and commanders must deliberately scope objectives using appropriate control measures and guidance to ensure that the infantry fully understand both their terrain and enemy "limits of advance" and the triggers to consolidate and remount. As noted earlier, infantry assaults will be tied to the continued advance of mechanized forces, and therefore the dismounts should only remain in possession of cleared terrain as long as required to achieve that goal. If there is a threat of a counterattack against recently cleared complex terrain, the infantry should remain in hasty battle positions only long enough to either defeat the counterattack or conduct battle handover to other forces while the mounted elements continue their advance.

Infantry must not remain on terrain merely as an observation asset; instead, that task should be accomplished by sUAS tied to fires including FPV drones to deny enemy advances while Infantry Soldiers remount and move on. Minimizing dismounted time continues to preserve infantry endurance by preventing them from becoming decisively engaged. Where available, RGVs can remain behind as deception and rear or flank security assets once the infantry remount. This allows continued forward momentum while maintaining a sensor with direct fire ability in recently cleared areas without affecting infantry available for future dismounted operations.

Avoid Becoming Decisively Engaged for Extended Periods

The imperative to support the advance of mechanized forces while avoiding attrition requires leaders to carefully modulate the length and intensity of dismounted combat. Dismounted combat is different from armored combat in many ways; key among them are the rapidity with which armored combat begins and ends and the extremity of ranges. Due to the speed, accuracy, and destructive firepower of armored platforms, engagements between formations can be measured in seconds or minutes. Dismounted engagements can extend to dozens of minutes due to the easier ability of dismounts to find cover and concealment, the inaccuracy of Soldiers employing rifles and automatic weapons, and the slow speed of dismounted movement relative to engagement ranges. Due to their lower density both in number of companies and number of dismounts within each company, mechanized infantry have lower endurance for sustained combat than their lighter counterparts. This makes it critical to ensure dismounted infantry do not become decisively engaged for extended periods, as that either slows or halts the armor's forward momentum for too long while attriting the dismounted capability of the formation to an extent that they can no longer secure the armor's advance.

(Photo illustration adapted from photo by SGT Caleb Minor)

By following the previous two imperatives, leaders will naturally begin protecting their infantry from extended engagements. Ensuring that dismounted infantry only conduct missions that directly support armored formations and keeping them mounted as long as possible within the protection and mobility provided by IFVs naturally protects them from unnecessarily long dismounted movements, attrition to direct and indirect fire outside the vehicles, and time and endurance lost to missions which do not directly support the advance of armor.

Small unmanned aircraft system operators assigned to 1st Battalion, 8th Cavalry Regiment prepare to launch a c100 at the National Training Center on 5 November 2025. (Photo by SPC Julian A. Winston)

Leaders must go one step further to protect the endurance of their infantry by carefully scoping dismounted objectives and rapidly shifting priority to those objectives as the main effort once initiated. This is done by providing clear guidance to dismounted forces with commander's intent which ensures they only stay engaged as long as necessary. For example, dismounted infantry tasked to neutralize strong-pointed enemy anti-tank teams must prioritize the destruction of anti-tank assets — not the clearance and securing of the entirety of the objective. In other words, they must be enemy and capability-oriented, not terrain-oriented.

sUAS, FPV drones, and RGVs are essential to reducing the risk of infantry becoming decisively engaged for long periods of time. Leading with these unmanned systems allows infantry to engage the enemy on terms of friendly choosing without employing the dismounts in close assaults. sUAS and RGVs can identify enemy positions and have their sensors feed information back to infantry leaders who determine whether each enemy position must be struck, bypassed, or assaulted. RGVs can suppress and fix enemy positions enabling dismounted maneuver while FPV drones strike vulnerable positions that must be eliminated. Removing these tasks from human infantry enables this limited asset to focus only on those positions which cannot be reduced in any manner other than close assault. Once the assault's objective is achieved, sUAS and RGVs provide rear and flank security while the Infantry Soldiers withdraw to their vehicles and remount to continue mounted maneuver.

Once dismounted infantry deploy from their vehicles, they must be the main effort until they accomplish their objective. Priority of fires, priorities of support from engineers, unmanned systems, and direct fire from other elements if practical must be employed rapidly and in synchronization in support of the dismounts. The lower relative speed, firepower, and endurance of the infantry demand all available support so that they are not bogged down while conducting operations in support of the overall mechanized movement.

Counterarguments

At an enterprise level, there are advantages to streamlining all Infantry Soldiers within the U.S. Army. Personnel management becomes simple when the organization does not need to account for formation type when distributing assignments. Theoretically, Soldiers and leaders can move freely between light, Stryker, and armored formations without fear of being mismatched in experience or being at a technical or tactical disadvantage. The introduction of the 19C MOS and the paired ceding of Bradley crewmember positions by the Armor Branch, along with the associated one-typing of infantry platoons and squads, means that Infantry Soldiers may expect that no matter where they end up, their skills, training, and employment will be the same and they require no new experience or difference in thinking. However, this is a dangerous series of thoughts and assumptions.

Despite its protestations, the Army already does not treat all infantry as interchangeable. An Infantry officer or senior NCO is effectively ineligible for assignment to airborne or air assault brigades without requisite experience or training such as completion of airborne or air assault school, or completion of those courses en route. Airborne organizations routinely broadcast that they will not consider hiring infantry majors who are not jumpmaster qualified. There is recognition that certain types of organizations benefit from specialized schooling and experience in those organizations.

This article does not directly advocate for the reintroduction of the 11M MOS or a return of 11Bs to IFV crewmember positions. The arguments for and against those changes have been waged for years and repeatedly come down in favor of one-typing infantry. Yet some form of specialization is necessary if we wish to have the most effective mechanized infantry possible and reduce casualties in future conflict.

While the return of 11Ms or infantry crew members would perhaps help this issue, it would not solve it alone. Instead, the Army should create or modify existing institutional and experiential training.

Ideally, a short Mechanized Infantry Leader's Course at Fort Benning could instruct Infantry officers and NCOs assigned to ABCTs on proper tactics, techniques, and procedures for mechanized infantry employment as an en-route requirement for assignment to these units. If that is not feasible, then reworking the Bradley Leader's Course to include dedicated sections on mechanized infantry employment is a potential middle road, with the added requirement that officers and NCOs assigned to ABCTs attend the course before reporting. Assignment to ABCTs should be contingent on a skill identifier tied to Army schooling, no different than airborne. Experiential training must then reinforce the institutional domain. Units must inculcate specialized tactics in their training progression, including focusing on the use of emergent technologies to reduce reliance on human infantry for tasks which can more easily and rapidly be accomplished by robotic and autonomous systems. Divisions and combat training centers must rework scenarios and enemy sets to reward ABCTs for employing their infantry in appropriate mission sets; for example, not sending all four infantry companies in the ABCT into an urban attritional fight in Razish at NTC.

Conclusion

Mechanized infantry operations cannot be approached as simply a variation of light infantry tactics with the added benefit of mobile protected firepower for support. The distinct capabilities and limitations of mechanized infantry within the context of an ABCT demand a fundamentally different approach. These forces are not general-purpose infantry. They are a limited, high-value asset designed to support, enable, and maximize the tempo, survivability, and shock effect of armored formations. Using them inappropriately, such as for terrain holding, urban clearance, or attritional engagements, risks not only mission failure but the rapid exhaustion of a finite dismounted force.

To effectively employ infantry within armored operations, leaders must adhere to three imperatives: employ them only in support of mechanized maneuver, fight mounted as long as terrain and enemy allow and avoid decisive engagement for extended periods. Doing so preserves the infantry's limited endurance, sustains momentum, and ensures their employment contributes directly to the success of the ABCT's maneuver. Planning must be deliberate. Dismount objectives must be tightly scoped. Support must be ruthlessly applied and synchronized. The infantry must become the main effort until their task is complete. Anything less squanders one of the brigade's most critical assets in a fight it was never built to win.

Notes

[1] For the purpose of this article, the term "anti-tank teams" includes not only teams equipped with anti-tank rocket launchers, recoilless rifles, and anti-tank guided missiles (ATGMs), but also drone teams equipped with anti-tank FPV drones

[2] According to Army Techniques Publication (ATP) 3-21.10, *Infantry Rifle Company*, the maximum engagement line is the farthest effective range at which a weapon or unit can engage a target, determined by both the weapon's maximum effective range and limitations imposed by terrain.

[3] Army Techniques Publication (ATP) 3-90.1, *Armor and Mechanized Infantry Company Team*, October 2023, 2-11 and 2-32.

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Army Approves First New Lethal Hand Grenade Since 1968

The U.S. Army has cleared the M111 Offensive Hand Grenade (OHG) for Full Material Release (FMR). Developed by the Capabilities Program Executive Ammunition and Energetics (CPE A&E), in conjunction with the U.S. Army Combat Capabilities Development Command (DEVCOM) Armaments Center at Picatinny Arsenal, the M111 OHG will replace the obsolete body and fuze of the Mk3A2 hand grenade series, marking the first new lethal hand grenade to achieve FMR since 1968 when the Mk3A2 entered service. The Mk3A2 is restricted for use due to its asbestos body unlike the M111 which utilizes a plastic body that is fully consumed during detonation.

The M111 will provide increased training and operational readiness while providing the Soldier with a safer option. It also offers Soldiers the ability to fight more effectively in closed quarter urban environments by leveraging blast overpressure (BOP) instead of fragmentation to deliver lethality. When used in grenades, BOP delivers devastating effects to enemy personnel and equipment without fragmentation and is a potent tactical advantage in the field. The M67 fragmentation hand grenade projects lethal and incapacitating fragments that can be deflected when employed in enclosed, restricted terrain like buildings, rooms, and structures, whereas the M111 OHG projects high BOP effects that are less affected by obstacles in enclosed and restricted terrain.

Read more at https://www.army.mil/article/290962/army_approves_m111_first_new_lethal_hand_grenade_since_1968.

Infantry Warfighting Forum Wrap-up

The following are key points discussed during the 26 March 2026 Infantry Warfighting Forum (IWF), hosted by LTG Greg Anderson, commanding general of the XVIII Airborne Corps and mobile brigade combat team (MBCT) senior mentor. This IWF focused on reconnaissance and security (R&S) without a cavalry squadron and the Joint Readiness Training Center's (JRTC's) new Training Assessment and Support Tool. LTG Anderson stated we have had several JRTC rotations with brigade combat teams configured without their cavalry squadrons and without the full Army Structure (ARSTRUC) equipment for the MBCT. We are sorting through who is doing what, at what level, and which leaders are responsible for execution. We are working out the intelligence and electronic warfare (IEW) battalions at division, how we fully use multi-functional reconnaissance companies (MFRCs), and what is the best way to integrate the MFRC at brigade. We must get these processes right and our people trained to understand our doctrine and enable them with the tools they need. We must figure out R&S with the new MBCT construct. R&S must be prioritized, focused, integrated against real collection requirements, and tied to decision points. As for Training and Evaluation Outlines (T&EOs), we are learning and adapting using objective assessments against known standards. Our doctrine is the starting point; it's not to teach people to run down a checklist. We teach people the steps and doctrine directly, so they have a baseline from which to adjust. From that baseline, they employ tactical cleverness and tactical problem solving from a foundation of sound doctrine.

Reconnaissance and Security without a Cavalry Squadron

MG Jason Curl, commanding general of JRTC/Fort Polk, stated divisions will have to do more with the MBCT construct. He recommended changing the battlefield framework, moving the intel handover line and the coordinated fire line closer to the front of the BCT so divisions can do more shaping out in front and hand over targets to the BCT for the close fight. From a BCT standpoint, doing a good intelligence preparation of the operational environment and identifying brigade intel gaps to division will help focus organic reconnaissance as well as focus division assets/collection. In terms of battlefield geometry and removal of the brigade engineer battalion (BEB) from the brigade rear fight, moving the brigade rear boundary behind the infantry battalions will assist division in enabling that fight. Brigades and battalions are starting to receive their complement of unmanned aerial systems (UAS) but still don't have the means to do organic security — they are forced to dedicate a maneuver element to security operations. A critical and immediate need within MBCTs is for infantry battalions to train R&S operations in conjunction with the MFRC. Key points from the discussion include:

• **Division and Brigade Roles in R&S:** LTG Anderson stressed the importance of understanding what the division and brigade roles are and the discussion between commanders and how they split those responsibilities. The whole premise of ARSTRUC is that we are going to shrink the BCT to enable close fighting excellence and divisions must shape that for the brigade now. That was the tradeoff and that tension is playing out — the fundamental piece is reconnaissance and then security.

• **MFRC and R&S:** The MFRC doesn't have some of the things we need to do the R&S mission we would assign it. MFRCs can easily get outpaced at the staff level — between the battalion and brigade staffs. The MFRC can find itself waiting for guidance from the brigade S3 as opposed to a battalion commander and staff bringing out the best from that formation. It's essential to get terrestrial sensors into the fight and sometimes that takes a battalion commander to make sure that happens on behalf of the brigade.

• **MFRC Investment:** COL (P) JD Keirsey, 25th Infantry Division's deputy commander-operations, stated that in regards to the training and development of the MFRC, the focus is on basic Soldier functions — making sure the MFRC is good at putting the systems up, integrating electronic warfare (EW), making sure they can get an EW hit, and actually having a functioning kill chain established from a network that supports it. LTG Anderson stated that investment is going to be really important to get the right read on where we are good and where we are short. If we are not trained in the fundamentals correctly, the data we collect is going to be off on our read on the outcomes of the training exercises we do. We will get through this in terms of how we invest in the MFRC and IEW battalion and force training to expose the good and bad — we owe that back to the Army. We knew going into ARSTRUC that we didn't have a 100-percent solution, but we needed to make the changes we needed to make. Now we need to do the bottom-up refinement on these things and ensure we are collecting the correct data the Army needs to make those tweaks.

• **Reconnaissance and Surveillance Leaders Course (RSLC):** COL Josh Glonek, commander of 3rd Brigade Combat Team, 10th Mountain Division, stated they sent their MFRC personnel to Fort Benning to attend RSLC. Unlike traditional reconnaissance formations, we now have EW specialists and UAS operators that need to get more integrated in the tactics of being forward positioned in the brigade area of operations. Procedurally, we need to reshape how our reconnaissance is getting data back to the brigade command post. With hundreds of UAS providing data, that data must be managed in a way to facilitate targeting, decisions, or answers to priority intelligence requirements

(PIRs). CSM Robert Frame, 3/10 MBCT's senior enlisted advisor, stated they sent EW and UAS operators to RSLC to learn the fundamentals of reconnaissance and bring those operators out with the ground scouts to get those assets out further. The MFRC is more than ground scouts — we need to revisit how we operated and sustained the long-range reconnaissance elements of the past. We should relook those things we did years ago and incorporate them into the new organization but integrate with new technology.

• **Division-Brigade Tension:** LTG Anderson stated the Division in the Dirt concept should become the standard, especially while we are trying to understand how these enabler battalions in a close fighting role are going to play out. We must stress-test that tension between division and brigade roles and responsibilities — we can do a lot of that through the next-generation constructive coming this year, which will help prevent divisions from having to deploy every time but still force brigades and divisions to work through these problems to see where we are short.

• **Targeting Fundamentals:** LTG Anderson stated training intelligence teams at division and brigade is key. We have seen it play out multiple times where these teams lack understanding of what is happening on the ground, visualizing the recon, and targeting fundamentals. If they don't get trained together, they will have to solve it in the tactical operations center during execution.

• **Aviation and Maneuver Centers of Excellence (AVN CoE/MCoE) Training:** The AVN CoE offers the Unmanned Advanced Lethality Course to divisions/brigades. The course (rank and military occupational specialty agnostic) is three weeks of tactics, training, and lessons learned on UAS groups 1-3 and culminates in a maneuver center-designed crucible event. The MCoE offers the sUAS Master Trainer Course (ground and air systems) pilot which started in April 2026. MCoE also recently completed their ATP for sUAS tactical employment and sUAS training for Initial Entry Soldiers.

• **Commander-to-Commander Dialogue:** BG Matt Hardman, 1st Infantry Division's deputy commanding general-sustainment, stated MG Monte Rone describes the near-deep fight for the division as the transition zone, the responsibility of the division for the collection and shaping on behalf of brigades. The discussions during this IWF mirror what they are discussing in 1st ID: bottom-up refinement from brigades and top-down from division to ensure we are answering questions for the division commander to enable brigades. This is all driven by commander-to-commander dialogue to sort out requirements as we transition spatially and temporally from a division to brigade in the close fight. The commander-to-commander component of this, and the commander fighting R&S, cannot be underestimated. It is the combined arms nature of fighting the R&S fight, especially considering UAS, counter-UAS, and EW, we have to fight through to get into the transition zone to do the collection we need, given the robust nature of the threats/EW capability. LTG Anderson stated there is no course or class you can attend to learn commander-to-commander dialogue — you have to self-train on that. As commanders, we are often guilty of pushing that dialogue to the 2 and 3 channels to sort out. There is a training and coordination piece in the staff functions, but the commander-to-commander dialogue is where we set limited capabilities against priorities, who is doing what, and that agreement translates into staff actions. Division commanders clearly have the role on that; brigade commanders need to be more aggressive about it now because you need divisions to do more for you than they have in the past.

Training Assessment and Support Tool

MG Curl provided an overview of supporting rotational training units with more rigorous practical assessments and the creation of the Training Assessment and Support Tool. He discussed how the tool will provide both immediate and long-term feedback to the rotational training unit and how the tool improves on current methods. Along with creating a take-home packet for the unit, training data will be stripped of unit IDs and loaded into the Army's upcoming VICTOR lessons learned platform for units across the Army to query for home-station training. He stated that JRTC will send out the T&EOs/Training Assessment and Support Tool to all units. The T&EOs have not been fully automated through Army Training Network (ATN)/Army Training Information System (ATIS) yet and must be executed manually at this time.

Infantry Squad Vehicle (ISV) Update

Mr. Chris Stone, deputy director of Transformation and Lessons Learned Manager – Infantry (TLLM-I), provided an update on the ISV, ISV-Utility, ISV-Heavy, and the E81 Mobile Mortar to include ISV fielding dates by BCT.

Closing Comments

CSM Bryan Barker, the XVIII Airborne Corps' senior enlisted advisor, stated that regarding R&S, we must be deliberate on how we put together our training plans. For the most part, reconnaissance knowledge is not resident in the generation of leaders we are asking to do these things. We are relying on the institution to help us bring that up to speed. As always, when we are doing the training, make sure we are evaluating it against the T&EOs to ensure we are training to standard and reinforcing the right lessons. LTG Anderson emphasized that reconnaissance is an operation, not an organization. There was a time when rifle squads were tasked with reconnaissance missions and we need to get that back into our bloodstream — we will never have enough reconnaissance assets.

The purpose of the Infantry Warfighting Forum is to enhance infantry/mobile brigade combat team leaders, leader teams, unit training, and operations. This forum helps provide feedback for identification/resolution of problems through senior leader channels and provides a venue for shaping Infantry initiatives to make our Infantry more relevant for today's environment.

INFANTRY BRANCH UPDATE

From the Infantry Branch Chief

Fellow Infantrymen,

Thank you for your unwavering commitment to excellence across our formations. Congratulations to the Infantry NCOs selected for promotion to master sergeant (MSG) and to those chosen for battalion command. Your leadership strengthens our legacy and ensures the continued readiness of the force.

This edition provides essential updates on **Enlisted Market Cycles (EMCs)**, **Officer Talent Alignment**, and **Broadening Assignments**. As the Army's personnel systems evolve, our mission remains constant: placing the right Soldier in the right unit at the right time to build lethal, ready infantry formations. We remain committed to delivering honest, transparent, and actionable information that supports readiness and aligns Soldier aspirations with Active Component Manning Guidance (ACMG).

ENLISTED INFANTRY UPDATE

EMC Cycle	Market Opens	Market Closes	Report Months
EMC 27-02 (Ongoing)	29 APR 2026	02 JUN 2026	JAN–MAR 2027
EMC 27-03	23 SEP 2026	03 NOV 2026	APR–SEP 2027
EMC 28-01	24 MAR 2027	4 MAY 2027	OCT 2027–MAR 2028
EMC 28-02	22 SEP 2027	02 NOV 2027	APR–SEP 2028

Enlisted Market Cycles

Beginning with **EMC 27-03**, the staff sergeant (SSG) and sergeant first class (SFC) markets will shift to a **twice-annual cycle**, aligning with the existing MSG timeline. Each NCO will be aligned to a six-week EMC window based on their **Year Month Available to Move (YMAV)**, increasing predictability for Soldiers and agility for the force.

Leader and Participant Actions for EMC Success

• ***Formation YMAV awareness*** — Leaders must track YMAV distribution to anticipate upcoming moves.

• ***Personnel action request (PAR) and YMAV actions*** — Submit PAR requests for stabilization or YMAV adjustments 45 days before market opening.

• ***E5 (Promotable) tracking*** — Ensure proper use of 24-month career development (CD) stabilization for projected SSGs.

• ***Verify EMC alignment*** — Participants must confirm their EMC window matches their YMAV.

• ***Understand market phases*** — Market Open, Mid Market, and Market Close.

• ***Discuss preferences early*** — Address location and family considerations before the market opens.

• ***Exceptional Family Member Program (EFMP) updates*** — Ensure EFMP status remains valid through the projected report window.

• ***Preferencing current station*** — Soldiers may pursue 24-month stabilization by ranking their current duty station first when under strength.

• ***Use stabilization tools*** — Career developmental, high school, Ranger Course, instructor, and stop move actions.

E-8 Pilot Market: Key Reflections

• ***EFMP validity*** — Must remain valid through expected report date.

• ***Monitor Integrated Personnel and Pay System - Army (IPPS-A) messages*** — Automated emails contain preference timelines.

• ***Review HRC resources*** — Stabilization suspense dates, market timelines, and YMAV ranges.

• ***Confirm preferences*** — Validate at least one week before market close.

• ***Preference the entire market*** — Ranking all options increases assignment likelihood.

• ***Married Army Couples Program (MACP) coordination*** — Include spouse in the process to manage expectations.

• ***Retirement considerations*** — Continue preferencing until retirement is approved.

Drill Sergeant Assignments: What the Force Needs to Know

• ***Duty Station*** — Volunteering does not guarantee a preferred duty station. Assignments are based on Army requirements.

• ***Assignment Notification*** — Most NCOs receive assignments between Phase I and graduation of the Drill Sergeant Academy.

o EFMP, MACP, and Date Eligible for Return from OCONUS (DEROS) movers may receive assignments earlier.

o DEROS movers permanent change of station (PCS) to their gaining unit before attending the academy.

OFFICER UPDATES

Army Talent Alignment Process (ATAP) Alignment

Officer assignment cycles remain aligned with **ATAP**.

ATAP Cycle	Market Opens	Market Closes	Report Months
ATAP 27-02	14 SEP 2026	04 NOV 2026	APR-SEP 2027
ATAP 28-01	14 APR 2027	13 MAY 2027	OCT 2027-MAR 2028
ATAP 28-02	14 SEP 2027	03 NOV 2027	APR-SEP 2028

ATAP 27 02: Tools for Effective Marketplace Execution

1. Preparation Phase

Units must treat ATAP as a deliberate operation:

- Identify hiring priorities.
- Publish a synchronized hiring campaign plan.
- Update YMAV, control group data, and job descriptions.
- Enter the market with clean data and clear priorities.

2. Shaping Phase

- Request the **Officer Information Management (OIM)** list.
- Finalize hiring rubrics.
- Initiate structured outreach aligned with priorities.
- Communicate OIM changes to Talent Managers.

3. Execution Phase

- Commanders must remain engaged.
- Conduct commander-to-commander dialogue.
- Request candidate feedback from Talent Managers.
- Adjust outreach based on real-time conditions.
- Maintain transparency by communicating OML information.

4. Post Market Phase

- Send welcome letters to incoming officers.
- Confirm gains and losses.
- Complete slating actions.
- Reinforce professionalism and set conditions for the next cycle.

Junior Officer Broadening Assignments (JOBA)

The **27-02 JOBA marketplace** will run concurrently with ATAP.

Battalion commanders should:

- Monitor key timelines.
- Identify potential movers early.
- Engage HRC to clarify mission-essential priorities.

Infantry Branch will release an initial roster of projected JOBA movers in **July 2026**, after which units may recommend replacements.

Common JOBA Assignments:

- The Old Guard
- Airborne and Ranger Training Brigade
- One Station Unit Training (OSUT) units at Fort Jackson and Fort Benning

Infantry second lieutenants receive follow-on assignment notification in the special instructions of their active duty orders to IBOLC. They are not placed on assignment until completing IBOLC and all required follow-on schools.

Officers commissioned in 2025 were among the first to receive 12-month OSUT assignments at Fort Benning (see figures below).

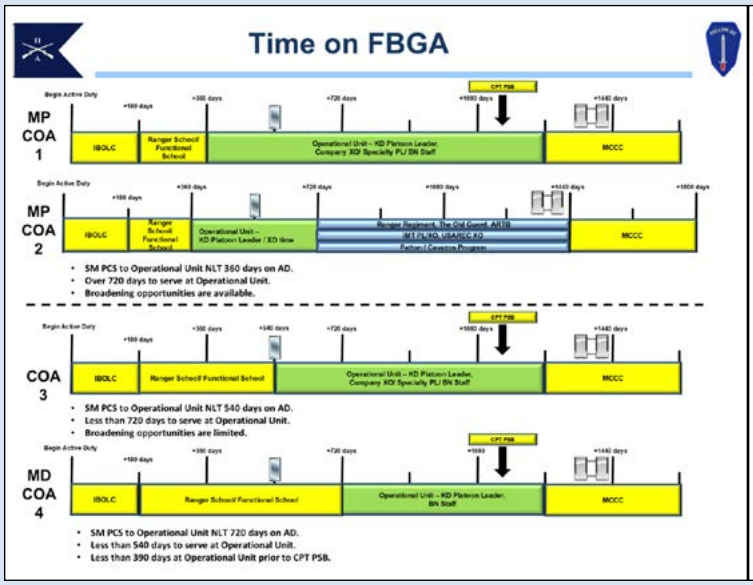
Closing Comments from the Infantry Branch Chief

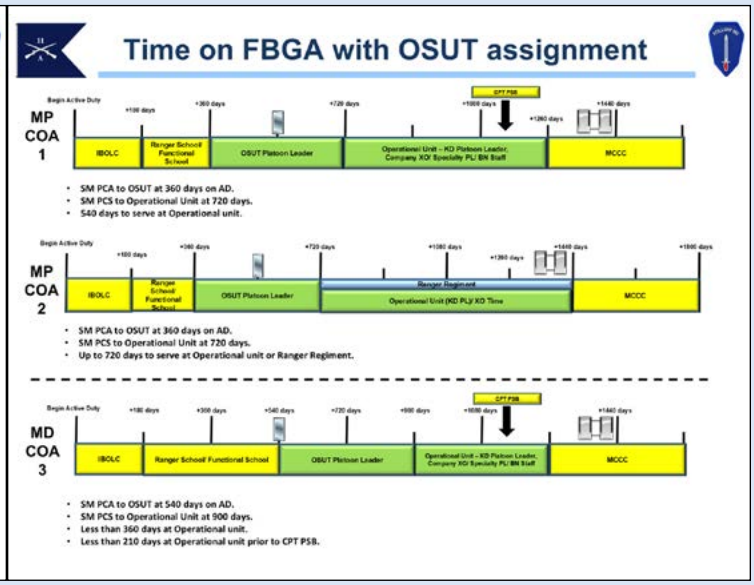
As my tenure as Infantry Branch Chief concludes, it has been an honor to support today's Infantry force and uphold the legacy of those who came before us. Please join me in welcoming CSM Jeremy McDonald as the next Infantry Branch SGM and LTC Paul Brown as the 52nd Infantry Branch Chief.

Closing the "Last Hundred Yards" for the nation since 1775 — Follow Me.

— LTC Garrett Turley
Infantry Branch Chief 51

Infantry Branch Points of Contact
https://www.hrc.army.mil/content/Infantry%20Branch%20POCs





Book Reviews

Battledrills for Chinese Mobile Warfare

By H. John Poole

Emerald Isle, NC: Posterity Press, 160 pages, 2023

Reviewed by
LTC (Retired) Jesse McIntyre III

H. John Poole — retired decorated combat Marine, renowned small unit tactics instructor, and author — continues his remarkable study of future conflict and small unit tactics in *Battledrills for Chinese Mobile Warfare*. This work provides insightful lessons on mobile warfare, leadership at the squad and platoon levels, issues with our current attrition warfare strategy, lessons learned from the Ukraine-Russia conflict, and training strategies to win in future conflicts. Poole asserts the U.S. military has not been victorious since World War II despite being technologically superior and better equipped than our adversaries.

Poole opens in describing the differences and control parameters of the attrition warfare style favored by Western militaries versus the maneuver warfare style favored by Eastern militaries. He warns us that any future conflict will find us against an adversary utilizing third-generation or fourth-generation warfare. We must make the transition from our current second-generation warfare, and Poole informs us that this will not be easy because of our overreliance on technology and desire for a "corporate approach" to combat.

The author excels in describing how Japanese forces utilized third-generation warfare techniques of mobile warfare, flexible defense, and tactical withdraw in wearing down American forces during the Battle of Okinawa. Japanese forces negated our fires and armor through rear-slope positions and connecting fortified fighting positions. Layers of hidden fortified positions, spider holes, interlocking fires, preregistered kill zones, along with the ability to counterattack behind American lines, made Okinawa a nightmare for attacking American forces. American Infantrymen quickly adapted, using small unit tactics to neutralize Japanese gun emplacements.

Poole utilizes recent lessons learned from the Russo-Ukrainian War to highlight the vulnerability of troops on the battlefield and benefits of mobile warfare in protecting the force. The abundance of drones provides more advance notice of approaching infantry forces and armor elements than ever before. Utilizing mobile warfare concepts lessens destructive drone strikes through the infrequent use of personnel carriers and keeping infantrymen well dispersed.

This book's biggest gem is Part Three - School House Procedures where Poole provides a no-nonsense guide for small unit leaders in training of up to squad-size units in mastering short-range infiltration and light infantry skills. These skills include decentralized command and control and an increased reliance on maneuver, stealth, speed, and light infantry tactics. Soldiers can quickly become highly trained individuals who are able to survive and apply the application of force and full combat power against an adversary with less reliance on technology and equipment.

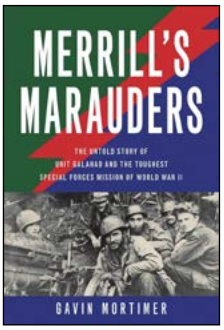
The strength of *Battledrills for Chinese Mobile Warfare* is Poole's exceptional writing style that succinctly captures details and depth in making each example relevant for discussion. This book is a must for all small group infantry leaders, doctrine writers, as well as senior leaders responsible for preparing units for the next conflict.

Merrill's Marauders: The Untold Story of Unit Galahad and the Toughest Special Forces Mission of World War II

By Gavin Mortimer

Minneapolis, MN: Zenith Press, 240 pages, 2013

Reviewed by
LTC (Retired) Rick Baillergeon



For years, World War II's China-Burma-India (CBI) Theater was dubbed the "Forgotten Theater." During the war, it was seemingly tucked away and essentially left to its own devices as all eyes and interest were on Europe and the Pacific. Military historians continued this focus for years after the war. Fortunately, over the past years, historians and enthusiasts have discovered the incredible value the CBI Theater has to offer.

The theater clearly had its share of skilled leaders, mavericks, characters, and even worse. Men such as Field Marshal Slim, Orde Wingate, "Vinegar" Joe Stilwell, Claire Channault, and Lord Mountbatten certainly fill one or more of the above categories. The theater also possessed its share of dynamic and skilled units and organizations. These units include the Chinese Expeditionary Force Flying Tigers, Wingate's Chindits, and Merrill's Marauders. Interest in the CBI Theater has exposed the public to these men and units.

Celebrated World War II historian Gavin Mortimer has taken his interest in the CBI Theater and in Special Forces

to craft the superb volume, *Merrill's Marauders: The Untold Story of Unit Galahad and the Toughest Special Forces Mission of World War II*. It is a book readers will find concise yet complete. It is also a volume which truly honors the incredible service of the Soldiers who fought in one of the most challenging and difficult environments imaginable.

For those unfamiliar with Merrill's Marauders, I believe a synopsis is warranted and will benefit those reading this review in determining if they would like to read the book. I believe the best summary I could provide is found on book's back cover, which reads:

> *In September 1943, three thousand U.S. Army soldiers answered the call for volunteers to embark on a hazardous secret mission in spite of estimated casualties of 85 percent. The mission: advance into enemy-held territory in Burma to disrupt Japanese supply lines and ultimately recapture an important airstrip at Myitkyina, which linked northern Burma to the rest of the country.*
>
> *The men of the 5307th Compositional Unit (Provisional), eventually nicknamed Merrill's Marauders after their commander, Brig. Gen. Frank Merrill, trained in India for months before crossing in enemy territory in February 1944. After traveling some seven hundred miles through grueling jungle conditions and encountering Japanese troops every step of the way, the Marauders, ravaged by disease and malnutrition, arrived at the Myitkyina airstrip in May 1944 and captured it. They barely held their position until reinforcements arrived to capture the town of Myitkyina, even as their numbers were whittled down to only two hundred able-bodied troops from the original three thousand. For their bravery in the harshest conditions, the group received a Presidential Unit Citation, six Distinguished Service Crosses, four Legions of Merit, and forty-four Silver Stars.*

Mortimer's volume essentially takes this back cover and superbly expounds on the details. Within this discussion, he aptly takes readers from their reconstitution on 1 January 1944 to their deactivation on 10 August of that same year. In between, he addresses the incredibly challenging missions and deplorable conditions in which the unit operated. Most importantly, he expertly depicts the human dimension of war which cannot be overstated within the CBI Theater. The use of firsthand accounts greatly assists in conveying this.

To achieve the above, Mortimer exhibits several key strengths throughout the volume. The first is the author's writing talents. The author writes in a highly conversant style which is perfect to tell the story of the Marauders. Two additional attributes tied to his writing skills will quickly become apparent to readers. First, he has the ability to use his words wisely. Consequently, he can convey thoughts succinctly that other authors would take much more copy. Second, Mortimer utilizes words that are very descriptive and convey emotions. Again, this is perfect for articulating the human dimension of war.

Another key strength is the author's propensity for simply not sugarcoating his thoughts and opinions. This is especially true as it relates to key leaders within the CBI. In particular, if you were expecting lavish praise showered on Stilwell and Merrill, you will not find it within this volume. Certainly, there are instances where Mortimer compliments each on a decision or action. However, in most cases, the author is highly critical of their leadership, decision-making, and regard for the Soldiers. This is in great contrast to his discussion of COL Charles Hunter, who Mortimer advocates was the true leader of the Marauders. This praise is emphasized in the volume's epilogue which highlights Hunter's contributions.

The final strength I would like to emphasize is the "extras' the author has added to the volume. The first of these is a timeline (tied to the Marauders) he places at the beginning of the volume. Readers will refer to this many times while reading the book. Second, is the superb captions Mortimer has placed under the included photographs. Readers will find this a powerful combination. Finally, at the conclusion of the book, he has a section entitled "What Became of the Marauders." As the title suggests, the author provides snapshots of what happened to more than two dozen Soldiers highlighted in the book. In combination, these additions greatly enhance understanding and answer questions for readers.

In summary, Gavin Mortimer has added an outstanding volume to his distinguished body of the work. His treatment of the Marauders clearly rivals any past scholarship on the legendary unit. For readers seeking a volume which provides a focused, highly informative examination of a unit which faced and bested overwhelming challenges at every turn; this is your book.

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