

A Rapidly Changing Operational Environment:

by SSG Matthew Watson

Analysis from the Russo-Ukrainian War and observations from our own Combat Training Centers (CTCs) have painted an undeniable and sobering picture of the modern battlefield. The findings in the “FY24 CTC Trends” and the “RUS-UKR War Informed Sprint Team Report” are not abstract future concepts; they are current, lethal realities. Data indicates the sensor-to-shooter link, once a matter of hours, has been compressed to single digit minutes.^{1,2} At the same time, multiple Center for Army Lessons Learned (CALL) publications on command post survivability indicate that even well-rehearsed battalion headquarters are being detected and notionally destroyed within the first 24-48 hours of an operation. As the Center for European Policy Analysis (CEPA) report “An Urgent Matter of Drones” makes clear, this destruction is primarily driven by the pervasive and difficult to counter threat of unmanned aerial systems (UAS).³

For a Staff Sergeant, like me, leading a Cavalry Scout section, we cannot

Cavalry Scouts Need to be Painfully Light and Disproportionately Lethal

afford to think of these as abstract data points. It is my opinion that these are a direct threat to the survival of my Soldiers and the viability of our mission, a threat made tangible during my time in Europe from 2018-2022. I had a front row seat to this evolving operational environment both before, during, and after the Russo-Ukrainian War. From Private to Sergeant, I was immersed in this mission and was fortunate enough to learn from my non-commissioned officers (NCOs) and officers during the most malleable part of my career. As leaders in 2d Cavalry Regiment (2CR) adjusted our training and equipment such as the Dragoon for a large-scale combat operation (LSCO) oriented style of warfighting, I understood that what I learned in One-Station Unit Training (OSUT) had prepared me for the last war and equipped me with few tools for the war to come.

As my leadership developed me from junior enlisted to junior NCO the background of this development would be like everyone's in 2CR. Taking part in

several multinational exercises, including Arrow 19 in the Russian bordering country of Finland, to Noble Partner 20 executed in the former Soviet country of Georgia. The proximity to our near-peer adversaries and emerging threats were made extremely clear to me a day after joining the corps of Non-Commissioned Officers. During Noble Partner 19, our squadron overcame unexpected adversity regarding a failure of sustainment. The fuel we required to conduct the 8-hour convoy to Vaziani military base did not arrive on time leaving our entire squadron immobile in the capital of Tbilisi. Over the next few days while our leadership moved mountains to get us the fuel needed, we took the unexpected time to conduct rehearsals and “hip-pocket classes”. In typical team leader fashion, we ran our men through rehearsal of concept (ROC) drills, standard operating procedure (SOP), tactics, techniques and procedures (TTP), and battle drills, and the typical sergeants time training such as tactical combat casualty care, dead gunner drills,



U.S. Army photo by SGT Hunter Xue

rollover drills, call for fire, observation post selection, and reports. Little did we know these rehearsals would be rendered ineffective training scars days after we had conducted them. After the fuel was secured and the convoy completed it became clear we needed to reframe sustainment in modern warfare, however, what would soon become clear; sustainment is not the only aspect we needed to take a serious look at.

I vividly remember passing quarry's being operated by Chinese mining companies and former Soviet refineries still adorning the Hammer and Sycle on their smokestacks during our convoy. I thought, like many of my teammates, how bizarre it was to see the shadows of the defunct Soviet Union. When we drove through the city of Gori, still recovering from the Russian occupation, it was impossible not to think about the outcome of failed sustainment. In a pivotal moment of the 2008 Russo-Georgian war, after cluster bombing the city, Russian armored columns maneuvered uncontested down the E90 highway and captured the city as well

as a plethora of military equipment including sixty-five T-72s, fifteen infantry fighting vehicles (IFVs) and dozens of armored personnel carriers (APCs) all abandoned because of what can only be described as a masterclass on Russian logistical strangulation. A very sobering reminder of what happens when you are ill-equipped to sustain a fight. No army is immune to the complications of sustainment.

The implication of the unexpected difficulties in our sustainment was not lost on anyone. The realization of exactly how devastating our Global War on Terror (GWOT) frame of viewing armed conflict was, was emphasized further just a few days later with the breakout of the Armenia-Azerbaijan war. With both countries' borders less than thirty miles away, our exercise quickly became the second thing everyone was thinking about. As the war developed and regional powers became drawn in, the feeling of being unprepared for this style of conflict kept my section leaders up at night. It became clear that Azerbaijani forces, equipped with a clear overmatch in

technological assets including both Turkish and Israeli made UAS, were making quick work of Armenian armored units, defensive positions, and airspace. This brand of combined arms and maneuver was something we had not considered while creating the opposing force (OPFOR) for our own training. Our focus was centered around defeating armored threats with man-portable air-defense systems (MANPADS) and counter-improvised explosive devices (IEDs). These lessons felt immediate and personal. We had spent countless hours training for the wrong fight.

Now more than ever with the Russo-Ukraine war we are all vulnerable to the same mistake. The traditional methods of reconnaissance relying on layered concealment and the relative safety of standoff are evaporating in the face of this unprecedented battle-field transparency. We are now forced to confront a fundamental paradox: to survive, we must become "painfully light," shedding every possible signature to retain freedom of maneuver. Yet, to be effective, we must be

Figure 1. A cavalry scout assigned to 4th Squadron, 10th Cavalry Regiment, 3rd Armored Brigade Combat Team, 4th Infantry Division, lies prone and aims his weapon while pulling security on Fort Carson, Colorado, Jan. 27, 2026. (U.S. Army photo by PFC Thomas Nguyen)





Figure 2. The 11th Armored Cavalry Regiment facilitate a drone swarm of 40 drones during the battle of Razish, National Training Center on May 8th, 2019. (U.S. Army Photo by PV2 James Newsome)

“disproportionately lethal,” capable of delivering a decisive blow to shape the battlefield. This is the new reality, and it demands a revolution in how we lead our sections.

Sensor-to-Shooter

The hyper-saturation of sensors may be the single largest change in our operational environment (OE). The modern battlefield is akin to a glass house, and we are still learning how to live inside it. It is no longer a matter of avoiding a roving enemy patrol, listening for the rumble of approaching armor, or relying on proven sustainment means such as air resupply in austere environments. Scouts are being perpetually hunted by a layered “system of systems,” an adversary concept that the People’s Liberation Army (PLA) and Russia have operationalized with frightening efficiency. This system integrates every method of detection imaginable, but its most ubiquitous and revolutionary component is the drone.

Drones have democratized airpower. The sky is no longer the exclusive domain of billion-dollar aircraft. It is now crowded with a dizzying array of UAS,

widely available and often so intuitive to fly that they require no training. These drones can be broadly categorized into three nightmarish groups. First are the reconnaissance drones, the ever-present eyes that loiter for hours, using high-definition optics and thermal cameras to scan every wood line, every depression, every shadow. These platforms feed a constant stream of intelligence to enemy command posts, painting a bird’s eye view of the battlefield that makes a mockery of traditional camouflage the dismounted scout has comfortably relied on in. Second, are the first-person view (FPV) “kamikaze” drones. These are small, fast, and agile quadcopters, often assembled from commercial parts, with an explosive charge strapped to them. Guided by an operator wearing FPV goggles, they can fly through open hatches, into fighting positions, and strike with unnerving precision. The pilot no longer needs to be geographically separated from the battle space there by shorting the kill chain. They are the snipers of the sky, capable of picking off individual Soldiers, high value targets like artillery, and vehicles while simultaneously acting as a reconnaissance asset and sensor. Perhaps

the most cost-efficient force multiplier ever introduced. Finally, there are the bomber drones, often larger platforms that can drop mortar rounds or grenades with pinpoint accuracy onto positions that were once considered far enough off the forward line of own troops (FLOT) or concealed enough to be relatively safe.

An often-overlooked topic, inseparably linked to this emerging OE, is the cumulative effect of this constant, multi-layered aerial surveillance is profoundly psychological. Interviews conducted by the United States Army Transformation and Training Command (T2COM) G2 indicate it induces a state of paranoia and exhaustion in even the most seasoned Soldiers. The lessons from Operation Atlantic Resolve bear this out; units operating in proximity to the Kaliningrad Oblast or Belarusian border are acutely aware of this constant potential for observation. There is no longer a “safe” rear area. Every moment from resupply operations to vehicle maintenance to a Soldier stepping out for a moment of rest is potentially a moment of discovery. This is not just a tactical problem; it is a human one. As a leader, section leaders

are now likely responsible for managing their Soldiers' cognitive load, a load that has been massively increased by the simple knowledge that they are always being watched. This constant stress degrades decision making, frays tempers, and erodes the very cohesion a unit needs to survive in combat. Due to the comparatively small size of cavalry teams and sections this effect has the potential to disproportionately impact Armor branch specifically cavalry elements section sized and below. The age-old need for enforcement of discipline, coupled with the section sergeants' watchful eye for complacency, has perhaps never been so apparent. The result is a battlefield where the front line is not a geographic location, but a state of being. The front line is wherever a sensor can see you. Our training is yet to reflect this truth.

This new reality threatens to exploit the decades of combat experience the Armor Branch has incurred during the global war on terror. Once our greatest strength, this experience now has the frightening potential to be our greatest weakness. Years of TTPs, training, and combat experience combined with a "we have always done it this way" mind set have the potential to transform into training scars. We are all susceptible to this truth. Now more than ever leaders at the lowest levels need to be able to ask themselves why they train the way they do and if that answer holds up under these emerging threat environments. That perfect, covered and concealed observation post we have all spent years identifying and occupying? A thermal camera sees right through the foliage, picking up the heat signature from the Bradley's engine, which was shut down an hour ago. That secure command post we thought was safe, five kilometers behind the line of contact? It just gave away our position with a single, high-power radio transmission, and a swarm of FPV drones is now on its way. The infrared (IR) buzzsaw that was templated as near side recognition for the rearward passage of lines (RPOL)? Queued the enemy to launch indirect fires during the most vulnerable part of the RPOL. This is the essence of battlefield transparency. It is the end of sanctuary. It forces us to accept a new, uncomfortable truth: we can no longer

rely on traditional cover and concealment, we must consider all forms of contact down to the lowest level. We must blend into the background noise of the battlefield, a task that demands a radical reinvention of our tactics, techniques, and procedures.

Balancing Signature Management with the Fundamentals of Reconnaissance

In an operational environment against our peer-to-peer adversaries, Cavalry scouts' survival hinges on communication. Crypto fill and Cypher might be enough to stop our adversaries from listening to what our scouts are reporting, however the electronic signature of a radio is enough to get our sections killed. It requires a fanatical, section-wide devotion to signature management (SIGMAN), a discipline that must now be treated with the same reverence as marksmanship or land navigation. No longer is SIGMAN primarily a Signal corps responsibility. The section leader will soon find himself responsible for engraining that in his elements. SIGMAN is the art and science of blending in, and it must be practiced across every domain.

Visual and thermal signatures are the most obvious. Our vehicles, especially the Bradley Fighting Vehicle (BFV), are massive heat signatures. Even after shutdown, they radiate heat for hours, appearing as glowing beacons to enemy thermal optics. Traditionally we have focused only on visual camouflage. We must become masters of thermal discipline, understand the thermal properties of the terrain and use it to our advantage at the lowest level. This means seeking out areas with high thermal clutter, like dense urban areas or rocky terrain, to mask our signature. It means understanding the science of cooldown times and planning our movements and halts accordingly. It requires us to use specialized thermal blankets not just covering our vehicles with camo net and foliage, but to create thermal decoys, false heat signatures that draw the enemy's attention and munitions away from our actual positions. This all may seem obvious, but you may be surprised to learn that currently, 19D Cavalry Scout,

19C Bradley Crewman and 19K Armored Crewman at OSUT, all have a lesson teaching camouflage of a vehicle. Across all three lesson plans the word decoy is only mentioned once. Other than putting a camo net on a vehicle and understanding that snow will impact a thermal no thermal masking techniques are mentioned or taught. This is a frightening realization when you consider the vast majority of OSUT graduates will fill the driver position as their first role after graduating. This would be less of an issue if it was covered in Advanced Leader Course (ALC), however, it is not. The lesson plan is not the problem; it is the example. The mindset is the problem.

All Staff Sergeants and above in the Armor branch have one thing in common. We have all trained to the point of muscle memory. Knowing this, we need to actively seek out things like camouflage a vehicle and make efforts to change them. The most basic TTPs are going to be the ones that get our sections killed, never stop asking why do it this way? Questions that were easy answers can get complex when you take the time to deliberately think about them. Serving as a OSUT Instructor I have become all too familiar with the "Private questions". Increasingly often I find these questions that once were an easy answer, something requiring some serious thought. . Questions like, does it still make sense for a patrol base to be a triangle? A trainee asked me that very simple question a year ago and I still have not come to a conclusion. SIGMAN is more than just BLUES, and we will fail if we are not extremely critical of our own TTPs at the section level. *[Editor's Note: BLUES is a Cavalry acronym for: Blend in with the surrounding area. Low to the ground. Unexpected sites should be used. Evacuation routes planned during site selection. Silhouetting should always be avoided.]*

The electromagnetic spectrum (EMS) is likely the greatest challenge. Every device we carry, from our tactical radios to our Joint Battle Command-Platform (JBC-P) and blue force tracking (BFT) systems, are a beacon screaming, "Here I am!" Our doctrine has become incredibly reliant on a constant flow of digital information, but this

connectivity is a double-edged sword. As observed in numerous CTC rotations and exercises under Atlantic Resolve, our adversaries are adept at electronic warfare (EW). They can detect, direction-find, and target our transmissions at frightening speed. Leading a scout section now means being an amateur network administrator, constantly weighing the need for situational awareness against the risk of electronic detection. It means abandoning the practice of continuous broadcasting and embracing “pulse” communications, short, data dense transmissions followed by long periods of radio silence. It means using the radio when we must, not when we want to. Every scout platoon in the Army has signal flags collecting dust in a container express (CONNEX) right now. Imagine how big of a signature your section

gives off while reporting readiness condition (REDCON) status and start point (SP). We have the solution; it just takes some inward reflection to decide to implement. Electronic detection demands that we become experts in directional antennas, meticulously orienting them to minimize our electronic signature. Most importantly, it means being prepared to fight with far less reliance on receiving information on the radio. Every scout must have a complete understanding of the commander’s intent, the mission’s objectives, and the plan for degraded operations. We must rigorously train with analog navigation, runners, and disciplined reporting methods because it is not a question of if our digital systems will fail, but when.

This leads to, in my opinion, the most counter intuitive aspect of SIGMAN:

dispersion. The “TDF CP Survivability” handbook’s emphasis on dispersion is a lesson written in blood.⁴ A clustered section is a lucrative target, one that an enemy commander is willing to expend significant resources to destroy. To survive, we must break apart. Three BFVs cannot be within sight of each other. Dismounted teams must operate in buddy pairs, separated by hundreds of meters. We must think, not as a single section, but as a constellation of independent, mutually supporting nodes. This radical dispersion will create significant challenges for command and control, logistics, and mutual security. It stretches the capabilities of our radios and makes resupply harder. The answer is rehearsals. If we change our most basic of section TTPs, we can adapt. The alternative is annihilation. As section leaders, our role shifts from directly controlling teams to orchestrating them. We can provide the intent, the boundaries, and the objectives, but we must trust our team leaders to execute with minimal communication. The NCO Corps is routed in decentralized command; empowering subordinate leaders is the only way forward. It requires a level of trust, training, and initiative that our Army has long preached, but seldom practiced to this extreme. The combination of obsessive SIGMAN, radical dispersion, and disciplined mobility are the ingredients of a technically and tactically proficient scout section. If we do not think our sections can do this, we all need to take a long look at why.

The Disproportionate Punch: From Eyes and Ears to Claws and Fangs

Survival is the prerequisite, but it is not the mission. A scout section that only hides is not a reconnaissance asset; it is a liability. If we cannot gather and report information and enable informed decision making, we are wrong. In this new environment, where finding the enemy is synonymous with being found, we can no longer be passive observers. The scout section must be disproportionately lethal. We must be able to deliver a blow so swift and violent that it neutralizes the immediate threat and creates an opportunity for

Figure 3. Cavalry Scouts recover casualties in their Bradley Fighting Vehicle after encountering an ambush from the nearby hillside during a training exercise at Twin Bridges training area, South Korea, Dec. 8, 2015. (U.S. Army photo by SSG John Healy)



us to displace, while being light enough to retain the freedom of maneuver.

This lethality must first be organic. The days of a scout section defending itself with only machine guns and wishful thinking are over. We must be armed with systems that allow every scout to punch like a heavyweight. The proliferation of advanced anti-tank guided missiles (ATGMs) is only the tip of the iceberg. Every scout vehicle and dismount team should be equipped with systems like the Javelin, giving them the ability to destroy main battle tanks from kilometers away. But the true revolution lies in arming our sections with loitering munitions. The ability for a two-man scout team, hidden in a basement or a ditch, to launch a small, man-portable drone, identify an enemy air defense system or command vehicle, and destroy it with a self-contained warhead is a fundamental game changer. It transforms every scout from a simple reporter into a precision strike asset capable of forcing the enemy to make high stakes decisions under pressure. We cannot wait for this technology to be perfected; we must demand it, train with it, and integrate it into our TTPs now. Furthermore, we cannot just hide from drones; we must have the ability to fight back. Waiting for air defense assets not indigenous to your section to protect your people is a recipe for disaster. We need an organic counter-UAS (CUAS) capability. This could take multiple forms: compact electronic jammers that can sever the link between a drone and its operator, directional energy systems, or even specialized airburst munitions for our 25mm cannons. A scout section that can create its own protective bubble, blinding or destroying enemy drones in its immediate vicinity, regains its freedom of maneuver. It can move, observe, and report without the fear of being fixed by enemy UAS.

The second, and ultimately more powerful, form of our lethality is networked. Our most powerful weapon is not the cannon on our BFV; it is the network we use to bring the full might of the combined arms team to the enemy. A scout section that can provide a real time, targetable, quality location of an enemy artillery battery to a Guided Multiple Launch Rocket System

(GMLRS) battalion influences the battlefield that is wildly disproportionate to its size. A scout team can accomplish this if equipped with small UAS (sUAS). This must be our asymmetrical advantage. It requires a new level of technical mastery from our Soldiers. They must be experts not just in vehicle identification, but in digital targeting systems, laser designation, and capabilities of indirect fire assets at their disposal. Our next fight will likely be alongside our NATO allies. Can my scout team pass a target to a Polish artillery battery? Can I talk to a German Tiger helicopter? Can I tell the difference between a friendly Finnish BMP and an enemy? As a section leader, we must now ensure our Soldiers are fluent in language of joint fires, capable of navigating different systems, data formats, and rules of engagement. We are no longer just the “eyes and ears of the commander”; we are the trigger finger of the entire combined arms team.

Leading in the Crucible

Our job as section leaders has become one of managing constant, multi-domain risks. We are no longer just tacticians; we are signature managers, joint fires experts, network administrators, and drone operators, all while trying to keep our Soldiers alive under the most intense pressure imaginable. This requires a fundamental shift in how we think about leadership and expertise within the reconnaissance community.

Our training must undergo a violent evolution. The scripted, linear lanes of our CTCs, while valuable for validating basic competencies, are insufficient for preparing us for this environment. We need force-on-force training where a thinking, unrestricted OPFOR is equipped with the same UAS, EW, and precision fire capabilities that our adversaries possess. Units should be graded not just on whether they found the enemy, but on their signature, and how many times they were detected electronically. Training must induce communications failure and force leaders to operate under these conditions for an extended period.

We must empower our team leaders and Soldiers to a degree that is

uncomfortable for our current institutional culture. With our section dispersed over kilometers of terrain and operating under strict emissions control (EMCON), we cannot micromanage. We must trust that our team leaders, understand the commander’s intent and can make life-or-death decisions on their own. Our primary job is no longer directing their move but training them to operate in our absence. We must give them the tools, the authority, and, most importantly, the trust to execute the mission when they are alone and being hunted.

We must shed the old, comfortable ideas of what it means to be a reconnaissance element. We must embrace the paradox of being painfully light and disproportionately lethal.

Staff Sergeant Matthew Joseph Watson serves as the Quality Assurance Officer for the 5-15 Cavalry Squadron, 194th AR Brigade at Fort Benning, GA. His previous positions include Quality Assurance Officer, Excellence in Armor Manager, Operational Environment Integration NCOIC, Senior Instructor, and Section Leader. His military education includes 19D OSUT at Fort Benning, GA; Basic Leadership Course at Camp Vilseck, Germany; Cadre Training Course at Fort Benning, GA; Common Faculty Development Instructor Course at Fort Benning, GA; and Faculty Development Course at Fort Benning, GA. He is currently working on the development and accreditation of the Program of Instruction (POI) for 19D OSUT.

NOTES

1 Center for Army Lessons Learned. Combat Training Center Trends for Fiscal Year 2024. No. 25-07 (926). Fort Leavenworth, KS: Combined Arms Center, 2025.

2 Center for Army Lessons Learned. The Russia-Ukraine War: Informed Sprint Team Report #1. No. 25-03. Fort Leavenworth, KS: Combined Arms Center, 2025.

3 Borsari, Federico, and Gordon B. “Skip” Davis Jr. An Urgent Matter of Drones. Washington, DC: Center for European Policy Analysis, 2023.

4 Ullrich, Siegfried, and Sean Moriarty. Lessons Learned from the Ukrainian Territorial Defense Forces: Command Post Survivability. No. 24-862. Fort Leavenworth, KS: Center for Army Lessons Learned, 2024.