



Current U.S. standard operating procedures for logistical-support units frequently result in geographic concentrations of command-and-control and support elements, demonstrated in this June 2017 photo from the Joint Multinational Readiness Center (JMRC), Hohenfels, Germany. This TTP (tactics, techniques, and procedures) presents extremely vulnerable targets for enemy artillery using massing and targeting techniques known to be employed by the Russian armed forces. During force-on-force training in which the authors of this article participated at the JMRC, the opposing force routinely gave high priority to targeting logistical support units during the opening stages of each exercise, resulting in a dramatic degradation of the maneuver brigade's operational reach due to a devastating loss of logistical support capability. (Photo courtesy of Vyper Team, Joint Multinational Readiness Center)

Logistical Operations in Highly Lethal Environments

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A major shock to leaders throughout NATO has been the reemergence of the potential for massed enemy fires not seen since the Eastern Front of World War II, foreshadowing the devastation that could be inflicted on organizations by enemies focused on efficiency of massed fires

in the event of large-scale war. Similarly, strategic threats stemming from the proliferation of new and sophisticated conventional capabilities are emerging around the world that are designed to exploit U.S. Army weaknesses. As a result, the U.S. Army is currently having to reinvent itself to fight near-peer

enemy forces once again, something it has not had to seriously contemplate for several decades.¹ Addressing the emerging security threats, Gen. Mark A. Milley, the chief of staff of the Army, has stated that “a future conflict is going to be highly lethal, very highly lethal. Unlike anything our Army has experienced since WWII.”² In such an environment, leaders must develop their units to be flexible enough to fight a near peer in the offense and in the defense, and then seamlessly shift into stability operations as stated in Army Doctrine Publication 3-0, *Operations*.³

At the Joint Multinational Readiness Center (JMRC), situated in the Oberpfalz region of Bavaria, Germany, the permanently assigned observer coach/trainer (OCT) teams regularly observe brigade support battalions struggle when confronted with Russian techniques, tactics, and procedures (TTPs). This lack of familiarity and detailed knowledge stems from an almost exclusive focus on training for counterinsurgency (COIN) threats over the last fifteen years. It has resulted in the atrophy of conventional combat skills, which were once second nature to U.S. forces assigned to Europe during the Cold War. COIN threats, for the most part, do not involve fighting under contested airspace, struggling for control over theater support areas, vying for domination in the cyber battle against sophisticated enemy electronic capabilities, or dealing with the effects of overwhelming massed fires. Therefore, training priorities did not emphasize cover, concealment, dispersion, and operating without emitting a signal. As a result, proficiency in these and other related conventional warfighting skills were not exercised at the lowest levels and have thus been largely lost.

This loss of conventional skills means that, without a significant reemphasis on survivability training, logistics units risk being destroyed rapidly in the event of a large-scale conventional war. This ultimately results in significant degradation to operational reach and maneuver tempo for the entire force. Therefore, the number one priority for logistics units preparing for a highly lethal conventional-force environment is survival. To achieve that end, the following are recommendations for how to adjust logistical-unit training for expeditionary operations in terms of a mindset reorientation and training adjustment in order to develop new TTPs.

The Russian Fires Threat

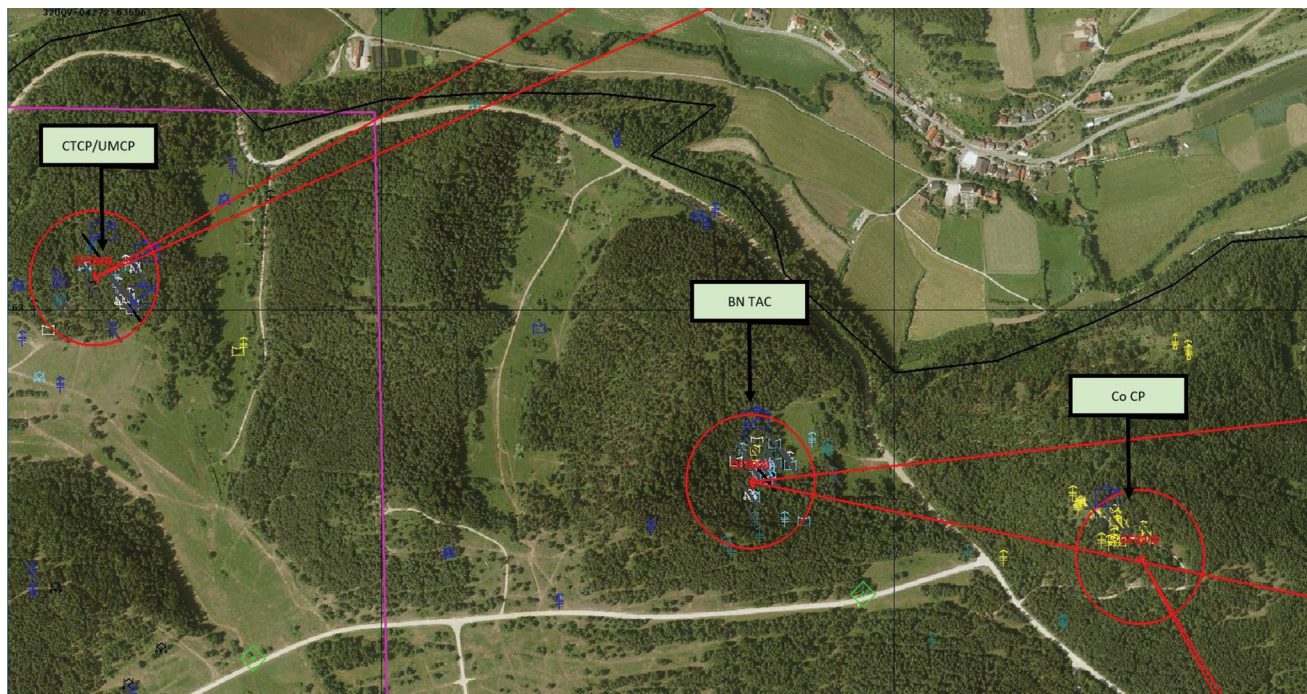
The quality of Russian artillery has been a source of Russian national pride since Peter the Great. One result is that historically, Russia had world-class artillerymen.⁴ Keeping with that legacy, in the current Russian military culture, field artillery is not just the “King of Battle.” It is called *bog voyny*, or “God of War.”⁵

In U.S. doctrine, fires elements support the maneuver elements. In the Russian military, the opposite is true. Russian armored formations seize ground in order for fires to move into effective firing positions and engage with overwhelming fire superiority. To meet the forecast requirements for modern warfare, the Russians have also modernized their artillery platforms to have ranges greater than fifty kilometers. These exceptional

platforms, together with Russian employment strategies, were extremely effective during the Ukrainian conflict. Russian armed forces have proven unflinching, willing, and adept

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at massing their fires to destroy everything inside a one square kilometer. The old Soviet army had five distinct methods of fire, and it is reasonable to assume that the Russian army maintains a doctrine that is very similar:

- During *rapid fire*, each crew begins to fire at their own pace without sacrificing accuracy or exceeding the tube's capability.
- In *systematic fire*, each tube is fired in unison at set intervals to achieve desired effects. This is most often used when coordinating with a forward observer.
- *Counterbattery fire* is the suppression or destruction of enemy batteries. This is considered the most important mission for an artillery unit because this is the preferable way of gaining fire superiority over an enemy.
- *Maneuver by fire* is the use of fires with maneuver elements. This can be used in conjunction with offensive and defensive operations. Within each maneuver operation, there are special artillery tactics as well.
- In the last method, *fire with direct aiming*, an artillery unit acts as both forward observer and firing battery.⁶

As a consequence of the increased range of Russian artillery and Russia's application of well-honed methods of fires delivery, U.S. brigade support battalions are now increasingly susceptible to enemy fires.

During Saber Junction 17, a training exercise conducted at the Joint Multinational Readiness Center (JMRC) in Hohenfels, Germany, a maneuver battalion had three nodes attacked simultaneously: a company command post (Co CP), the battalion tactical command post (BN TAC), and a company trains command post (CTCP) collocated with the unit maintenance control point (UMCP). The red lines depict the flight path of opposing force (OPFOR) tube artillery fire missions. Two OPFOR fire missions were used for each location; the circles show the areas affected. The fire missions brought chaos to the battalion for hours as all three nodes were forced to treat and evacuate casualties and find new locations from which to conduct operations. These missions crippled the supply chain of a maneuver battalion and shifted sustainment priorities for the brigade support battalion. Six accurate fire missions caused ripples throughout the brigade and degraded its operational reach for hours. (Photo courtesy of JMRC)

Unmanned Aerial Vehicles Threat

Additionally, since the 2008 Georgian campaign, Russia has been developing its unmanned aerial system (UAS) program to identify targets. Russia has both military and over-the-counter commercial-grade drones that will layer degrees of coverage over an area of interest and relay target information between drones to a stationary ground force. Ukrainian units reported that once their unit locations were identified, they had five to fifteen minutes before accurate Russian fires hit their positions.⁷ Russian forces now have demonstrated a unique



ability to leverage unmanned aerial vehicles (UAVs) in a way that we have never encountered before in a near-peer adversary. This is potentially devastating to support units, and here is why.

The current prevailing mindset of logistics leaders that rotate into JMRC is to collocate battalion field trains command posts (FTCP) within the brigade support area (BSA). This is done in an effort to gain a more accurate overall brigade logistic common operating picture. However, the concentration of field trains in a confined place creates a large unit footprint that is easily observed by enemy UAVs. This makes such concentrations of units immediately subject to fires before they can react.

As a consequence, the BSA has been identified in every fiscal year 2017 exercise within twenty-four hours from the start of the rotation. Once targeted by the opposing forces, the degradation to the brigade's operation reach is devastating due to all of the FTCPs' proximity to the BSA. The lesson learned is that when an enemy has the demonstrated proclivity and capability to mass effective, long-range artillery against rear areas, logistical units need to spread out and increase their mobility in order to survive. This type of survival requires disciplined companies executing clearly understood standard operating procedures (SOPs) in order

A Russian self-propelled howitzer fires a 152 mm shell toward a Georgian position 9 August 2008 outside the South-Ossetian settlement of Dzhava, Georgia. (Photo by Denis Sinyakov, Reuters)

to be effective. Survivability must be taken into account when developing the brigade's concept of support for an operation when fighting a near peer.

The most essential lesson learned is that establishing the large logistics footprints that U.S. formations are accustomed to is no longer possible in the type of threat environment that is emerging.

The Need for a Dispersion Oriented Mentality

Gen. Mark A. Milley stated, "To avoid being detected and targeted by precision weapons, soldiers must split into small units and keep either on the move or under cover. Static bases will be sitting ducks."⁸ Pursuant to this guidance, the U.S. Army must create a mentality that embraces dispersion. Despite the need to adjust TTPs to be ready for recent innovations in UAS detection capabilities, logistics units have not been exercising or standardizing detection mitigation practices



during JMRC training rotations. One method units can begin to employ is arraying platoon and company locations into base clusters.

Base clusters make it more difficult for enemy UASs and other intelligence, surveillance, and reconnaissance assets to identify unit locations. If a logistical unit is discovered and targeted by enemy fires, cluster formations will mitigate total destruction of personnel and commodities.

After detection, units only have minutes to displace their formations before enemy fires strike. A large concentration of logistical headquarters elements can take hours to move, even if displacement criteria is rehearsed. In contrast, displacing one company is easier than an entire brigade-support network concentration. Also, the chances of enemy positive identification on an entire logistical footprint is reduced.

Base Cluster Preparation and Mission Analysis

It is critical that commanders and staff members execute mission analysis prior to combat operations to

Sgt. 1st. Class Victor Figueroa helps conceal the 13th Expeditionary Sustainment Command's support operations tent 26 October 2016 during a command post exercise forward on North Fort Hood, Texas. Such exercises are intended to train support headquarters elements to deploy to an immature theater in an austere environment during a decisive action scenario. However, the authors of this article assert that the size, weight, complexity, and large electronic "footprint" of such command posts have made them extremely vulnerable to attack because they are too slow to establish, too easy to identify from aerial reconnaissance, and too slow to relocate when threatened. (Photo by Capt. William Brink, U.S. Army)

determine what is realistic in terms of formation size, how to implement dispersed formations, and how to prepare for multiple relocations that may have to be carried out on short notice. The analyses must identify key terrain features, the infrastructure network, and the support requirements (given the limits of article-length analysis, only terrain is covered in-depth in this article). Units that practice base clusters should develop SOPs that are unique to their organization and enable leaders at the lowest level to practice disciplined initiative. They should include SOPs for



preplanned communication windows, isolated personnel procedures, and displacement criteria.

One Key Recurring Planning Deficiency

At JMRC, units are not leveraging terrain to their full advantage. Base clusters require terrain features between each element. For example, the distribution company could be near an intersection while the medical company is separated by a nearby ridge. Logistical units need to strive to stay out of open areas and use cover and concealment as much as possible. Additionally, the maintenance company does not need to be near the distribution company and the intersection. The maintenance company can be completely concealed in a wood line. Such effective use of natural conditions minimizes the resources and the time devoted to camouflage and concealment.⁹

Planning and executing base clusters is difficult, but it is essential to help ensure survival. Therefore, commanders need to prioritize survivability training built around the cluster concept and visualize what requirements will be needed. Experience will come with

The U.S. Army demonstrates a new command post wireless solution that provides Wi-Fi to the command post leveraging Warfighter Information Network-Tactical Increment 1 satellite equipment in May 2015 during Network Integration Evaluation 15.2 on Fort Bliss, Texas. Implementation of Wi-Fi offers the potential of eliminating the need to lay complex wire systems, which would simplify and facilitate speedier displacement of a command post element. (Photo by Amy Walker, Program Executive Office Command, Control and Communications-Tactical)

time. The hardest part will be taking the first step and training this concept at home station.

Training Needs for Survivability TTPs

The Asymmetric Warfare Group recently stated that “all combat support units within range of IDF [indirect fire] systems must practice exceptional survivability TTPs.”¹⁰ JMRC has identified three areas that need to be improved immediately.

The first training priority follows Milley’s vision of a future conflict, “Our units will have to move constantly. ... In the future battlefield, if you stay in

one place longer than two or three hours, you will be dead.”¹¹ This is especially true for battalion and company headquarters.

The recent Russo-Ukrainian conflict appears to validate this observation. Ukrainian battalion executive officers reported that they moved their headquarters constantly and never stayed in one spot more than seventy-two hours to avoid targeting by fires. They may stay in a general area but never in the same spot.¹²

To accomplish this refinement of survivability TTPs, U.S. forces need to focus on setting security, digging fighting positions, covering all vehicles with camouflage, and setting up the new communications network. These tasks are not specific to the company level. Company, battalion, and brigade soldiers must become extremely proficient at breaking down and setting up the command post. In this process, leaders and soldiers must capture and prioritize what needs to be set up first and what is a luxury that can be dispensed with. Also, leaders need to refresh their formations’ understanding of “priorities of work,” ensuring specific subordinates are assigned responsibilities in accordance with those tasks.

The second training priority, also cited as a priority by Milley, is “to employ every known method of concealment.”¹³ Logistics units are no different when stationary; units must be able to conceal their positions. Moreover, the modern battlefield goes beyond simple camouflage requirements such as face paint and foliage on vehicles. Army Techniques Publication (ATP) 3-37.34, *Survivability*, explains that “placing a low priority on camouflage and concealment activities because of time constraints, minimal resources, or convenience could result in the mission failure and unnecessary loss of life.”¹⁴ Units at JMRC have been slow to implement camouflage for platforms that operate in various sections of the electromagnetic spectrum. These platforms include cell phones, heaters, and email enablers. Using a flashlight has the potential to give away a unit’s position and invite enemy fires onto that location. Therefore, as priority targets for enemy fires, sustainment units must take every precaution to reduce risk. This can be achieved through clear orders before an operation or going without digital systems for as long as possible. ATP 3-37.34 is an excellent reference for commanders for camouflage best practices.

The most effective way to employ camouflage and concealment listed in ATP 3-37.34 is light, noise, and movement discipline.¹⁵ Logistics leaders need to reembrace field craft and develop SOPs that can be enforced by noncommissioned officers. To that end, ATP 3-37.34 has an entire appendix on how commanders can develop SOPs for their units.¹⁶

The third training priority is a subtask of concealment. Commanders must train their staffs and units to operate without the digital systems that we have become accustomed to during the last fifteen years of conflict so that the mission can continue if network communications are degraded, destroyed, or themselves become an operational-security liability. This is going to be very difficult at first, as the U.S. Army has become dependent on systems that constantly share data such as Global Combat Support System-Army, Joint Capability Release, Blue Force Tracker, and Command Post of the Future. However, sharing that data comes at an operational-security price. All cloud-based systems continually ping a satellite in orbit to relay communication. This creates a potential fatal vulnerability, since each of these systems can be observed and monitored by someone looking across the electromagnetic spectrum. Consequently, using such systems may perpetually give away the location of the unit to skilled adversaries, putting the unit in danger.

Additionally, generating the bandwidth to support Command Post of the Future, Outlook, and Defense Switched Network phones requires a command-post node or joint-network node. These mission command enablers require an unblocked view to the satellite. This can become difficult in a wooded area and the command-post and joint-network nodes are often placed in an open field where they can be seen with the naked eye and their locations compromised.

The problem is not just limited to digital systems. Frequency modulation and high frequency communication, even if properly encrypted, can be intercepted, triangulated, and give away a unit position. Therefore, commanders would be wise to take TTPs from NATO allies who have not become dependent on digital systems. Among such, communication windows are used where company command posts are only authorized to “blast” short, thirty-second communications, to which the battalion is expected to respond within the next twenty-four hours with guidance in communications



In the debate of efficiency versus survivability, survivability must always win.



bursts of less than thirty seconds. Consequently, a culture shift across the U.S. Army is needed in which commanders must genuinely have trust in their subordinates and allow them to take disciplined initiative. Constant communication will only get soldiers killed.

The Way Forward

The threat of Russian fires against logistical formations is a problem U.S. forces have not encountered for nearly a generation. The days of large forward operating bases such as Bagram or Camp Victory are not realistic in a high intensity, conventional force-on-force environment. The destruction

of a major Ukrainian ammunition depot in March 2017 dramatically reinforces this point.¹⁷

To protect U.S. Army logistical formations against a sophisticated blend of UASs and long-range artillery, units need to disperse while leveraging terrain to their advantage. Leaders should focus on making their units mobile, concealed, and empowered to conduct disciplined initiative. In the debate of efficiency versus survivability, survivability must always win. Soldiers are no good to the Army if they are dead. In the words of Gen. Milley, “for those that wish to do us harm, the U.S. Army will beat you harder than you’ve ever been beaten before.”¹⁸ ■

Notes

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