
Breaking through the Dragon's Teeth:

Greywolf Brigade's Lessons Learned at NTC during Rotation 24-06

COL EDWARD ARNTSON

MAJ EDWARD OLSON

MAJ ERIC YOST

MAJ JACOB DONALDSON

The 3rd Armored Brigade Combat Team (ABCT), 1st Cavalry Division (3/1 CD) conducted National Training Center (NTC) Rotation 24-06 from 30 March to 12 April 2024. The successful completion of the 14-day exercise included constant contact with opposing forces (OPFOR), extensive expansion of obstacle efforts to increase the complexity of OPFOR defenses, and engagements spanning more than 170 kilometers of offensive and defensive operations. This enabled the brigade to integrate enablers to effect in deep, close, and consolidation areas and validated the brigade's ability to execute its mission-essential task list (METL) in modern large-scale combat operations (LSCO). This article seeks to capture best practices and provide recommendations for organizational change across the realms of doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy (DOTMLPF-P).¹

The Greywolf Brigade's Armored Cavalry Troop provides overwatch during offensive operations during National Training Center Rotation 24-06 on 1 April 2024 at Fort Irwin, CA.

(Photo by SGT Ryan Gosselin)

Introduction — Operational Environment at the NTC 24-06

Enemy: 3/1 CD "Greywolf" fought world-class OPFOR in the crucible of NTC's all-weather desert environment. The 11th Armored Cavalry Regiment (ACR) "Blackhorse" provided a simulated armored enemy threat, enabled by constant unmanned aerial system (UAS) collection and higher echelon information operations, Special Forces, and fires capabilities against the Greywolf Brigade from the start of reception, staging, onward movement, and integration (RSOI) through the completion of the rotation. Blackhorse elements probed and gathered information against 3/1 CD with constant air- and ground-based collection and electronic warfare capabilities. They fought to change the environment through obstacle efforts while 11th ACR layered fires and collection effects to augment direct fire engagement with indirect fire; chemical, biological, radiological, or nuclear (CBRN); and air-based capabilities.





Greywolf troopers assault through the dragon's teeth obstacle belt with a combined arms breach during NTC Rotation 24-06 (Photo by SGT Quincy Adams)

Friendly - Ground Combat-Focused Brigade Combat Team (BCT): 3/1 CD fought NTC 24-06 as a BCT closer to templated Army 2030-2040 design descriptions of a close combat force: equipped with an armored cavalry troop formation rather than an armored cavalry squadron and critical ground-force enablers from across the Total Army as part of the rotation. For information operations, this included Alpha Company, 490th Civil Affairs Battalion from the Texas National Guard and the 305th Psychological Operations Company from the Army Reserve. For protection, this included Delta Battery, 6th Battalion, 56th Air Defense Artillery (ADA) Regiment for short-range air defense (SHORAD) and counter-UAS (C-UAS). The 526th Engineer Construction Company from the 20th Engineer Brigade provided enhanced survivability and counter-mobility. The 510th Combat Engineer Company-Armored from the 36th Engineer Brigade provided enhanced mobility and counter-mobility. A platoon from the 401st Military Police Company, 89th Military Police Brigade provided additional flexibility to support traffic control as well as security during the brigade's ongoing rear area consolidation efforts.

Coordination for Critical Division Capabilities

In keeping with Army efforts to modernize, NTC's 52nd Infantry Division (ID) provided intelligence, fires, and Army Aviation at echelon above brigade levels that operated in a general support role for 3/1 CD. The 52nd ID operated with communications-discipline windows to reduce high-risk signatures to command-and-control (C2) nodes. This required 3/1 CD to drive a disciplined battle rhythm that focused on enabling operations with various targeting inputs to best set a permissive battlefield architecture: integrating effects from intelligence collection efforts and

coverage for range or capability gaps in counter-fire radar, close air support, Multiple Launch Rocket System (MLRS) fires, and attacks by Army Aviation in and out of contact.

Adapting for Success in LSCO

Adapting to operational requirements for LSCO, 3/1 CD employed a distributed model to enhance survivability across brigade-level C2 and sustainment architectures. The brigade support battalion (BSB) included the brigade's reduced-size administrative and logistics center (ALOC) and employed a split-node concept of tactical command posts and forward logistics elements (FLEs). The brigade's C2 included a low-signature mobile command group (MCG), reduced-signature main command post (MCP), ALOC integrated with the BSB, and mission support site (MSS) operating from

over the horizon. Key to the architecture was distribution for survivability paired with actioning elements. This provided the commander a flexible C2 architecture that increased survivability, enhanced connectivity, and provided the ability to use higher-level capabilities. It also afforded the brigade redundancy during transitions without a loss in analytical or targeting efforts.

The MCG — led by the brigade S3 — comprised three to four vehicles, using primarily Joint Battle Command-Platform (JBC-P) and frequency modulation (FM) and tying into existing command nodes if access to upper tactical internet (TI) was essential.

The MCP — led by the brigade executive officer, S-2, and fire support officer (FSO) — was built around a distributed



A dozer crew from 526th Engineer Construction Company enables survivability operations during defensive operations at NTC. (Photo by PFC Nathaniel W. Garrett)



Greywolf's 2nd Battalion, 82nd Field Artillery Regiment provides artillery fires in support of operations during NTC Rotation 24-06. (Photo by PFC Nathaniel W. Garrett)

site with sub nodes: strike cell-style current operations, fires, and intelligence center (COIC) and integrated plans cell with all warfighting functions present, plus enabling the brigade signal company communications hub. The MCP maintained upper TI, JBC-P, FM, and high frequency (HF) along with critical mission command information systems (MCIS) — the Advanced Field Artillery Tactical Data System (AFATDS), Air and Missile Defense Workstation (AMDWS), Tactical Airspace Integration System (TAIS), and Command Post Computing Environment (CPCE) — to enable rapid execution and direction of brigade-level effects. Constant coordination with the ALOC and sustainment architecture led to heightened endurance and flexibility to adapt to the evolving needs of the fight.

The MSS — led by the brigade fusion chief and manned by the brigade intelligence support element (BISE), battalion liaisons (LNOs), and field artillery intelligence officers (FAIOs) — supported constant connectivity and continuity, operating over the horizon and tying into the COIC and the rest of the brigade through upper TI and JBC-P. This provided constant access and distribution of reports and intelligence from the battalions and division. The MSS-layered intelligence collection capabilities combined with battlefield reporting to provide an accurate assessment of enemy composition, disposition, and strength. Critically, the team integrated intelligence layering to cross-cue assets such as UAS, ground moving target indication (GMTI), and signals intelligence (SIGINT) with the Joint Automated Deep Operations Coordination System (JADOCS) and AFATDS. This provided the MSS a 24-hour capability to engage high-payoff targets with brigade assets or coordinate for division support. These targeting efforts across command nodes, augmented by constant access to assets, resulted in the highest recent rotational accuracy of employment and rate of destruction of enemy critical capabilities.

Key Recommendations

The Greywolf Brigade offers the following recommendations to existing and future brigade combat team (BCT) structures to improve their ability to fight a lethal kill chain, keep pace planning with a division headquarters, sustain at the speed of LSCO, and enable the BCT to protect its critical capabilities.

Update doctrine to reflect distribution of critical C2 and sustainment nodes. The employment of an intelligence and fires-focused architecture, enabled by a flexible sustainment design, is critical to success in LSCO. Disciplined distribution of command and sustainment nodes is essential for success, and 3/1 CD took advantage of opportunities to iterate C2 designs and practices throughout its progression to NTC 24-06. Updates are essential to sustainment and C2 doctrine to communicate how BCTs can and would employ both the necessary structures and practices for success. Updates in C2 doctrine must include command post architecture — personnel and equipment lists of distributed command nodes that include current and projected upper and lower TI communications and MCIS placement. Sustainment doctrine must account for the threat of constant UAS observation and indirect threats. This must include methods for distribution and management of sustainment clusters for survivability. The need to set up distributed, redundant classes of supply requires updated methods and systems for predicting logistical requirements to build sustainment enterprises that can efficiently move essential supplies from sustainment clusters to points of need. Doctrine must reflect the need for mobile logistics nodes and communicate how coalescing events, such as establishing logistics resupply points, present significant risks to force and mission as they provide high impact opportunities for enemy fires and intelligence, surveillance, and reconnaissance (ISR).



The Greywolf Brigade utilized a terrain-masked, reduced signature command post during NTC Rotation 24-06. (Photo courtesy of authors)



Soldiers assigned to Greywolf's 215th Brigade Support Battalion conduct logistics package operations on 29 March 2024 to sustain the fight during NTC Rotation 24-06. (Photo by SPC Macaydan Hawkins)

Retain key operational integrators within the BCT; elevate the maneuver planner to major and intelligence collection manager to captain. As the Army shifts capabilities to the division level and higher, trained and experienced integrators of those capabilities become increasingly important. Division or higher staffs can quickly outpace the planning and coordination efforts of BCTs during LSCO, especially if BCTs have fewer and more junior personnel in critical integrator positions in intelligence, fires, and protection. Engagements at NTC often lasted as long as 15 hours, preventing traditional planning cycles at echelons below division. As BCTs disperse to increase survivability, key intellectual horsepower is essential to enabling success of a decentralized organization. Experts at key nodes are essential, and as such, BCTs at the brigade level need to have a major billet for a maneuver planner and add a position for a Military Intelligence captain with a Q7 additional skill identifier (ASI) — information collection planner. BCTs must retain key personnel with appropriate experience to integrate warfighting functions in LSCO: a major serving as the assistant brigade engineer (ABE), intelligence warrant officers of the BISE in the rank of chief warrant officer (CW) 2, air defense airspace management/brigade aviation element (ADAM/BAE) warrant officers in the rank of CW2, and brigade fire support element (FSE) warrant officers in the rank of CW3.

Elevate the BSB S-3 to major in ABCTs to better equip the BSB to fight distributed nodes. In the distributed sustainment architecture, sustainment battalions in BCTs have a limited number of senior leaders, compared to the complexity of their requirements, to effectively coordinate the sustainment of an ABCT. The Greywolf Brigade fought a distributed sustainment node architecture, employing a split-node concept of tactical command posts and forward logistics elements with distribution of its classes of supply to reduce signature and impact of loss due to persistent threats from drones, fires, and deep reconnaissance or disruption formations. 3/1 CD received logistic packages (LOGPACs) from the division sustainment support battalion once daily

and drove to execute LOGPAC operations twice daily to all companies, troops, and batteries to enable the endurance of the brigade. Improving the BSB's survival increased management responsibilities for reception and distribution of supplies to internally distributed nodes from higher echelon sustainment. Simultaneously, the BSB operations team coordinated BCT support and protection operations against threats in the BCT sustainment footprint. BSBs and BCTs must have the flexibility to adapt their sustainment architecture to complex operational environments to increase survivability. To enable their success, they need experienced leadership to enable the BCT to have endurance in its C2 to be successful in LSCO.

Improve BCT protection capabilities and update our approach to suppress, obscure, secure, reduce, and assault (SOSRA) with capabilities across the dimensions and the electromagnetic spectrum. The modern battlefield's collection and observation environment has fundamentally increased in threat. The NTC OPFOR replicated conditions seen in Ukraine, Nagorno-Karabakh, and other modern conflicts — specifically, UAS proliferation and ubiquitous electronic warfare (EW) capabilities on the battlefield. The OPFOR tied these capabilities with surface- and air-based threats at what they considered critical moments in a battle — such as the conduct of the breach due to the exquisite nature of engineering platforms in a high-profile role on the battlefield. 3/1 CD lacked organic capabilities to apply a multi-spectral and multi-dimensional approach to protection operations or the execution of SOSRA. Greywolf proved BCTs own the maneuver and fires capabilities to employ smoke and suppression to prevent ground-based observation and interdiction of the breach site. However, BCTs lack the organic ability to provide three-dimensional depth to reduce overhead collection from manned and unmanned air threats or reduce electronic-based collection of signal traffic during C2 of the mission. The proliferation of effective and inexpensive EW and unmanned drones, such as those seen swarming on the battlefields of Ukraine, require protection capabilities down to the company level.

NTC is training our BCTs for what we can expect if the Army does not equip and train for protection efforts. As one leader asked, “When will the artillery stop?” “It doesn’t,” replied the battalion’s senior observer-coach-trainer.

It is critical that passive protection measures, such as camouflage systems designed to support every platform, are basic issue items for every vehicle. 3/1 CD was able to augment its capabilities to conduct counter-air and drone operations with support from 6-56 ADA during the rotation, but this was not enough to fully enable battalions to protect all critical operations or command posts. Recent conflicts have shown failures to protect C2 nodes and breaches or bridging operations; the Army must update its SOSRA doctrine, equipment, and personnel capabilities within BCTs to include electronic protection, C-UAS, and anti-air capabilities. Every BCT formation down to the company level must have active protection capabilities to enable operations and the successful execution of a combined arms breach. These systems must be employable across organizational type using the tenets of SOSRA modernized to defeat a broad range of the threats, or we face developing a two-dimensionally focused force for a constant three-dimensional fight.

In Closing

Leaving the crucible experience of any combat training center rotation enables Soldiers to feel accomplished, capable, and prepared for the next major mission. The Greywolf Brigade is now ready, currently serving on a prepared-to-de-

ploy status and looking forward to its NTC Rotation 25-06. It will be prepared for deployment having used the training year and next rotation to take advantage and build on hard-earned lessons. We implore Army senior leaders to consider these recommendations as we execute ongoing transformation efforts across the Army to fight and win in LSCO.

Notes

¹ The Department of Defense uses its definition in the Joint Capabilities Integration Development System process as the framework to design administrative changes and acquisition to efforts fill capability requirements to accomplish a mission.

COL Edward Arntson currently serves as commander of the 3rd Armored Brigade Combat Team, 1st Cavalry Division at Fort Cavazos, TX. He is a graduate of Ranger and Airborne courses. COL Arntson is an Army War College fellow and earned master’s degrees from the University of Texas at Austin and School of Advanced Military Studies (SAMS).

MAJ Edward Olson currently serves as the brigade fire support officer for 3/1 CD. He is a graduate of the Joint Fires and Effects, Joint Fires Observer, Airborne, and Air Assault courses. MAJ Olson earned a master’s degree in organizational leadership from Columbia University and a master’s degree in military arts and sciences from SAMS and the Command and General Staff College.

MAJ Eric Yost currently serves as the brigade executive officer for 3/1 CD. He is a graduate of the Ranger, Airborne, and Mechanized Leaders courses. He earned a master’s degree in legislative affairs from George Washington University.

MAJ Jacob Donaldson currently serves as the brigade operations officer, for 3/1 CD. He is a graduate of the Cavalry Leaders, Air Assault, and Airborne courses. MAJ Donaldson earned a master’s degree in kinesiology from the University of Virginia.



Troopers in the 3rd Armored Brigade Combat Team, 1st Cavalry Division conduct suppress, obscure, secure, reduce, and assault operations during a combined arms breach as part of NTC Rotation 24-06. (Photo by PFC Nathaniel W. Garrett)