

Brigade and Battalion Mobile Tactical Operations Centers

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The Army's new operating concept, multi-domain operations (MDO), requires forces to be more mobile and less static within the operational environment (OE). However, the Army's current command and control (C2) nodes, which remain large and stationary, are those from the wars in Afghanistan and Iraq. This type of design places a unit's survivability at risk, especially when confronted with the current precision technology U.S. adversaries possess to target with indirect fires. The Army cannot continue the current practice of utilizing static C2 nodes if it wants to maintain survivable and precise C2 of the OE when targeted by the enemy's indirect capabilities.

The Army currently does not have a mobile platform tactical operations center (TOC) that provides the ability to C2. If the mobility issue is not addressed, it will lead to the targeting and destruction of command nodes on the battlefield due to their lack of mobility and large operational footprint. A solution is the acquisition and distribution of the M1087n Family of Medium Tactical Vehicles (FMTV) expansible vans to be utilized as mobile TOCs for tactical battalions and brigades.

The recent conflict between the Russian and Ukrainian armies which began in 2014 has demonstrated the Russian ability to target Ukrainian army C2 nodes and proves there is an urgent need for mobilized C2 nodes. "Army leaders have been concerned about the survivability of command posts that are placed close to battle zones since Russia invaded Ukraine in 2014. During that conflict, Russian forces were able to quickly find and destroy Ukrainian command posts by using a combination of unmanned aerial vehicles [UAVs] and electronic signature detection."¹ The Russians' demonstrated ability to rapidly identify enemy C2 nodes through signaling interception or UAVs and subsequently target them with accurate indirect fires is the primary reason to advance from the old-style tent TOC to a more mobile and expeditionary style concept.

The U.S. Army Training and Doctrine Command (TRADOC) outlined the extension of the close area fight in TRADOC Pamphlet 525-3-1, *The U.S. Army in Multi-Domain*



Photo by SGT Anita VanderMolen

The 2nd Squadron, 116th Cavalry Regiment readies its tactical operations center to begin training operations on 14 August 2015 at the National Training Center at Fort Irwin, CA.

Operations. It states: "The Close Area includes land, maritime littorals, and the airspace over these areas. The new operational environment and improved enemy and friendly capabilities have expanded the Close Area. Operations in the Close Area require tempo and mobility to overcome these enemy capabilities through sufficiently integrated and concentrated combat power at the critical time and space."² The statement clearly acknowledges that within the close area fight, tempo and mobility will be two critical factors that ensure U.S. forces can overcome the enemy's capabilities. Providing the commander the ability to integrate all warfighting functions and make timely decisions to enable warfighters to destroy the enemy is the key to success in the future OE.

C2 mobility offers survivability by denying the enemy the ability to target key C2 assets with indirect fires while simultaneously providing the commander a clear picture of the operational environment. Commanders and staff within maneuver brigades and battalions remained mired in the era of wars in Iraq and Afghanistan with the use of forward operating bases (FOBs) or combat outposts (COPs) instead of recognizing the need to adjust to the maneuver warfare of large-scale combat operations. Any recent visit to a Combat Training Center (CTC) can prove that the "TOC-mahal" or

“tent city” is still the norm within the military. The focus for battalion and brigade C2 nodes needs to shift to a more mobile and expeditionary TOC. This new mobile concept will ensure that the Army can be more mobile while still maintaining the operational picture.

A solution can begin with the acquisition and distribution of M1087 FMTV “expando vans” by moving these platforms from the forward support companies’ (FSCs) assigned modified table of organization and equipment (MTOE) to brigade and battalion headquarters and headquarters companies’ (HHCs) MTOE. The second part of the solution would be the Army developing prefabricated interior kits to configure and secure all necessary equipment to operate a TOC.

The reorganization would require an update to MTOEs that would authorize HHCs to have the expansible van on their property book. This action would be the fastest way to immediately provide the capability at the battalion and brigade levels. Currently, most FSCs use these platforms as small weapons repair locations. This service repair location could easily locate with the battalion combat trains command post (CTCP) or field trains command post (FTCP) at the battalion support area (BSA) in a static position farther from the forward line of own troops (FLOT) utilizing a palletized load system (PLS).

Using the M1087 in the C2 mode would also require fielding prefabricated kits for the interior to properly secure all necessary equipment appropriately instead of having units make their own. Without these standardized kits, units would have unsecured items and equipment within the vehicle’s interior, which could potentially become a hazard and slow down their ability to relocate rapidly. Prefabricated kits would ensure that there was a standard concept across the Army.



U.S. Army photo

A tactical command post based on a Light Medium Tactical Vehicle with expandable van is pictured at Fort Bliss, TX, during Network Integration Evaluation 14.1.

Mobility is the essential key to the platform. It will allow staff to continue operations, break down and move if compromised, or “jump” the TOC to a better position where it can quickly reestablish itself and continue the fight.

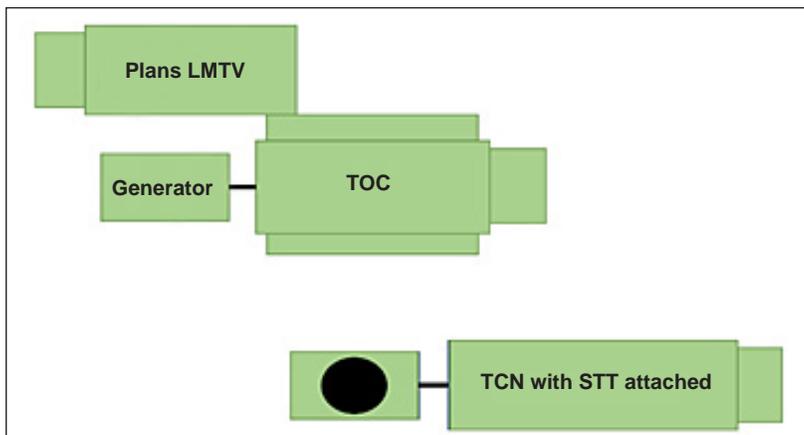
The mounts and racks for sensitive items would need to be strong enough to secure all equipment properly and not hinder the van’s ability to expand and close.

The expandable van’s interior is the key factor in removing the gap between a fast-maneuvering main element and a static tent-style TOC. The FMTV platform is important, but it is the equipment located within the back of the vehicle that will further expand and enhance the commander’s capabilities. It is envisioned that the expandable van’s interior will have installed prefabricated radio racks, tables, and chairs already fastened to the walls and floor. Wiring will be in place for all expected equipment, and additional wiring will be provided for access to any other screens or technology needed. This design will allow the TOC to move rapidly and deploy its operation immediately upon occupation of the newly established TOC location.

Mobility is the essential key to the platform. It will allow staff to continue operations, break down and move if compromised, or “jump” the TOC to a better position where it can quickly reestablish itself and continue the fight. Through multiple repetitions, staff from my former unit (the 2nd Battalion, 325th Airborne Infantry Regiment) was able to get emplacement and displacement down to 30 minutes.

This capability would give the commander time on the battlefield to make decisions while allowing the staff to operate and continue feeding necessary information into the decision-making process.

The expandable van would tow a generator to ensure that when the TOC location is determined the interior can immediately have power, and if the TOC must displace quickly, the generator will already be attached. In addition to the expandable van, the mobile TOC would require two other vehicles. The second required vehicle could be either another FMTV or an M1078 Light Medium Tactical Vehicle (LMTV) that would serve as the plans center. It could park next to the expandable van with a platform connecting the two while still providing a separate area between current operations and future operations. The third vehicle to complete the mobile TOC would be the FMTV Tactical Communications Node (TCN) towing a Satellite Transportable Terminal (STT), which would provide instant connectivity to the TOC. However, the TCN/STT could be removed to decrease the overall footprint, and the TOC could



Core Layout to the Mobile TOC Concept

just operate on an analog configuration, giving commanders options to tailor their TOC package to their specific mission. These vehicles would serve as the core elements of the TOC. Additional vehicles could move with the TOC but would not be required to park next to it. As a result, the overall footprint of the TOC would be reduced.

Additional modifications would be needed to complete the expando van's exterior for rapid emplacement and displacement. Quick erect antenna mast (QEAM) systems should be welded to the van's sides to prevent wasting time unpacking and having unsecured antennas on the top of the TOC. The QEAMs would allow for antennas to be expanded in height as soon as the vehicles come to a stop. To limit the visual signature of the van, camouflage awnings could be mounted on its four corners to cover the front cab and generator while providing a covered area for staff to store gear outside the limited interior and an area for commanders to meet with their whole team. The van also has a door light kill switch so if the door is not closed properly all white lights in the interior will not turn on. All these modifications enable the TOC to rapidly establish in a fraction of the time for a normal "tent" TOC.

The proposed capability of the mobile TOC will be useless without a staff developing the ability to quickly occupy a location and establish TOC operations. A staff would need to train on the process of occupying a location and commencing operations routinely. A recommendation for conducting such training would be that the core package of the TOC be established after Monday morning maintenance; staff operations could then be conducted within the platform for the remainder of the day.

Some leaders have leaned forward with this concept, including my former battalion commander (LTC Stewart Lindsay, 2-325th AIR), who formulated this original plan during my time as one of his company commanders. However,

the entire Army needs to pay particular attention to the lessons being learned from the conflict between Russia and Ukraine and fully understand that our forces will be targeted and engaged with indirect fires within large-scale combat operations if remaining static for too long. Standardizing this process across the formation with resources will mean having a durable command platform and not a "Mad Max"-type modification that is paid out of pocket from proactive leaders.

In the future, U.S. land forces will continue to require massive amounts of information but will need to enhance their ability to receive it while being mobile and maneuvering with their elements. Unit C2 nodes cannot be tethered to the ground and take hours to unpack, pack, and reestablish their TOC. Tactical battalion and brigade TOCs must be mobile while maintaining the capability to maintain a clear operational picture for their commanders.

Notes

¹ Stew Magnuson, "Army Looks to Disperse Command Posts to Boost Survivability," *National Defense* (22 October 2020), accessed from <https://www.nationaldefensemagazine.org/articles/2020/10/22/army-looks-to-disperse-command-posts-to-boost-survivability>.

² TRADOC Pamphlet 525-3-1, *The United States Army Operating Concept 2016-2028*, accessed from https://dde.carlisle.army.mil/LLL/DSC/readings/L19_tradocPam525-3-1.pdf.

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Photo courtesy of the Joint Readiness Training Center

Soldiers with 1st Battalion, 12th Infantry Regiment, 2nd Infantry Brigade Combat Team, 4th Infantry Division, work inside their mobile tactical operations center at Fort Polk, LA.