

Radar survivability and synchronization for the 82nd Airborne Division WFX 19-03

By Warrant Officer Donald "Trey" Nicholson

This article discusses radar force protection in the 82nd Airborne Division's Warfighter (WFX) 19-03. Specifically, I recount our radar protection plan and tactics, techniques and procedures (TTP) that resulted. This information is valuable to all who execute the counterfire fight and appreciate the critical role counterbattery radars play on the modern battlefield.

The 82nd Division Artillery (DIVARTY), in its role as counterfire headquarters, was reinforced by the 45th FA Brigade throughout the operation. To centralize facilitation of counterfire operations, all 12 AN/TPQ-53 radars belonging to both the division and the reinforcing FA brigade were controlled within the DIVARTY work cell, located at the Fort Bragg Mission Training Complex (MTC). Proper training, practice and rehearsal in operating the MTC's Battle Simulation Work Station (BSWS) to accurately portray execution of operations should not be an afterthought. In fact, it is central to the successful execution of simulated operations in the field.

Capitalizing on the lessons learned from our and other Warfighters exercises, the DIVARTY counterfire team devised a force protection package to enhance survivability and refined TTPs for fighting the enemy.

Survivability

Survivability starts with dedication of supporting assets. Due to their vulnerability and critical importance for mission success, Q-53 radars require a dedicated force protection element. To accomplish 24-hour, continuous operations, each radar was task organized an infantry team, equipped with a High Mobility

Multi-Purpose Wheeled Vehicle (HMMWV), four infantryman with M-4s small arms, and one mounted M240B or M2 .50 caliber weapon. Each force protection element was under tactical control (TACON) command authority of each Q-53 and was physically controlled by the same BSWS operators that controlled the radars, for unity of command.

Engineer support is also a critical element for radar survivability. Each radar was provided one engineer team, with D7R Dozer, also TACON. This support relationship enabled expedited survivability moves and virtually guaranteed prepared defensive positions (PDP) at all radar sites.

Radar survivability moves were conducted continuously, throughout the WFX. Whenever indirect fire was received within a position area for artillery (PAA), or enemy unmanned aerial systems (UAS) were observed, or eight minutes of accumulated radiation time had elapsed, a survivability move was initiated. Movement distances ranged from 500m to 2K. Though three Q-53s were requested to cover the division's area of operation at all times, we determined that two radars could effectively provide frontal coverage, which provided the remainder of the division's radars greater time and opportunity to conduct movements in support of future operations.

Within the MTC DIVARTY work cell, all 12 Q-53s with supporting TACON elements were consolidated onto two BSWSs. The stations were configured side-by-side with an MOS 13R Soldier manning each station, an MOS 13R NCO on each of two shifts and the target acquisition platoon leader warrant officer as officer-in-charge. This essentially

split the responsibility of movement and survivability in half and became much more manageable. This consolidation also allowed for radar deployment orders to be pushed to all radars through two systems instead of 12; which in turn, expedited movement orders, cueing schedules and zone management.

Fighting the enemy

Ultimately, the point of survivability is to live to fight another day. To that end, we developed the following checklist, to help us and you better prosecute the counterfire and counterbattery fight, both in the field and in a mission command training facility:

1. Consolidate all radars being controlled during the battle under two stations within the same cell. Make the officer in charge a field artillery warrant officer and the executors MOS 13R Soldiers, with a high-speed NCOIC. Controlling 12 x Q-53s, with 12 x decoys and supporting security and engineer elements can become overwhelming for one station. For WFX 19-03, we employed two stations in the mission training center, side-by-side, with an MOS 13R Soldier at each station and an NCO supervising each shift.
2. Ensure Q-53 radars always occupy a PDP. With an engineer asset supporting each radar, occupying PDPs became a simple task. Prior to every movement, the supporting engineer asset was sent to the next planned position, with the task of building two PDPs (one for the Q-53 and one for a decoy constructed to mirror a decoy system in the field).
3. Avoid merging the radar, decoy, security and engineers into one unit, within BSWS – a les-

son we learned the hard way. Within BSWS, if the enemy engages a merged team, only the four-man crew of I3Rs operating the Q-53 would engage the enemy, using only organic M4s. This is a system flaw. On the other hand, if radar, decoy, security and engineer elements are separated, the infantry security is free to also engage the enemy, using M240s and M2 .50cal weapons. This TTP more realistically replicates the training audiences' fight.

4. Once located in a PDP within a PAA, the infantry security should be tasked with conducting reconnaissance or providing security within the PAA. Without giving the security element a task, that infantry team will simply default to "occupy assembly area" mode and do nothing.
5. The engineers complement should always be digging PDPs, in accordance with the primary, alternate, contingency, emergency plan. Once a Q-53 and decoy occupy a PDP, engineers should be immediately tasked with digging an alternate PDP, then a PDP in the next planned PAA.
6. Team rehearsals in the mission command training center are as important as those in the field (and should be synchronized). Our I3R Soldiers, NCOs and warrant officer were identified a month in advance and began training on the BSWS two weeks prior to exercise execution. This enabled the controllers to familiarize themselves with the system and learn how to properly operate all the elements associated with and supporting the radars. This also built the leader confidence necessary to enable the OIC to handle the logistics and communicate effectively with higher headquarters, both in the mission command training center and in the field.
7. Whichever Fires headquarters serves as the counterfire headquarters (for us, it was the DI-



A CH-47 helicopter flies over a Q-53 radar. (Courtesy photo)

VARTY; for you, it may be an FA brigade), the logistics are handled through the S4. The S4 must track and satisfy the logistical requirements of the security and mobility elements, as well as those of the radars. Infantry security elements require periodic Class V resupply and infantry and engineer elements require constant Class III resupply.

8. The best defense is an aggressive offense. When enemy were identified, infantry security teams were immediately directed to attack the enemy, if the force ratio was appropriate. If a radar was destroyed, its surviving attachments (infantry, engineer and decoy) were re-assigned to other surviving radars, until a replacement radar could be reconstituted.
9. Maneuver brigade combat team (BCT) control cells are typically located elsewhere in the mission command training center, but movement of FA elements, including supporting radars, requires detailed communication. Maneuver BCTs can share their "route overlay" with the radar control cell,

through BSWS. This eliminates guess work associated with movement. When moving radars and associated elements, consult the order of movement table in the operations order, which will facilitate maximum security and survivability throughout the operation.

When supporting the Warfighter training audience, the BSWS should be considered the operational environment (OE) for Soldiers in the mission command training center. As with all fights, the OE is continuously evolving. It is not "gameism" mentality to prepare to support the training audience through home station mission command training centers; it is embracing the OE. Proper train-up, rehearsal and an emphasis on force protection will lead to success in your next Warfighter exercise.

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