Blackhorse Perspectives

Killer Troop Tests Anti-Armor Doctrine on National Training Center Battlefield

by 1LT Lawrence Collins

Killer Troop is the anti-armor company in 11th Armored Cavalry Regiment (ACR), Fort Irwin, CA. The 11th ACR serves as the opposition force at the National Training Center (NTC). The troop uses humvees equipped with missile launchers. These vehicles are fitted with a "shark nose" visual-modification kit to replicate the Russian anti-tank missile vehicle, also referred to as AT-5 *bronirovannaya razvedyvatelnaya dozornaya mashina* (BRDM). The AT-5 BRDMs carry missiles in a launcher on top of the vehicle. Killer Troop uses a laser-engagement system to replicate missile effects at NTC.

Figure1. An AT-5 BRDM moves through NTC's open desert. The AT-5 BRDM is a modified humvee outfitted to replicate the Russian BRDM-2, an anti-tank combat reconnaissance patrol vehicle. *(U.S. Army photo)*

The seven fundamentals of anti-armor unit employment are mutual support, security, flank-shot engagement, standoff, employment in depth, employment as part of a combined-arms team, and cover and concealment. These fundamentals are the tactical essentials for anti-armor platoons and companies. They improve the survivability and lethality of anti-armor elements. During NTC's Decisive Action Training Environment Rotation 15-02 in November 2014, Killer Troop tested these fundamentals against 3rd Armored Brigade Combat Team, 4th Infantry Division. Data was collected at the end of each of the four battle periods to confirm or deny the anti-armor fundamentals' use and utility on the NTC battlefield.

Mutual support, the fundamental that dictates anti-armor task organization, was practiced in terms of physical proximity of AT-5 squads in most engagements. AT-5 BRDMs using mutual support averaged a battle-damage assessment (BDA) 12 times higher than those not using mutual support. Section battle drills and direct-fire control measures must be rehearsed and implemented into operations to sustain this substantial performance difference. When using the laser-engagement system to replicate missile effects, it often required more than one missile to produce a catastrophic kill (CATK).

1LT Allen Blount, a platoon leader, commented that using some form of direct fire-control measure, terrain- or threat-based, is critical in destroying the greatest threat first, and is especially important when fighting a more heavily armored force. Quickly destroying enemy threats increases the probability of achieving the standoff fundamental.

Anti-armor units overcome vulnerabilities with good ***security***. This is why the security fundamental is critical and why anti-armor units must be positioned near friendly infantry units in addition to providing their own local security. An example of this fundamental in practice was in the case of an infiltration company in the NTC city of Ujen during Battle Period 3. The infiltration company, consisting of four AT-5 BRDMs, used dismounted infantry to establish strongpoints in buildings to overwatch the AT-5s' positions.

This example also demonstrates the utility of the ***employment as part of a combined-arms team*** fundamental. Anti-armor squads and sections, no matter the situation, must be mindful of all enemy threats to ensure they survive to fight in the main battle.

Figure 2. A Soldier assigned to Troop K, 2nd Squadron, 11th ACR, fires a simulated BGM-71 TOW Weapon System May 29, 2014, during a decisive-action training rotation aimed at preparing units for future deployments. The BGM-71 is mounted atop a humvee outfitted to replicate the Russian BRDM-2, an anti-tank combat reconnaissance patrol vehicle. ***(Photo by SPC Denitra Halford, 11th Armored Cavalry Regiment Public Affairs Office)***

For a number of reasons, anti-armor sections and squads should be positioned to engage tanks and other armored vehicles from their flank, a fundamental known as ***flank-shot engagement***. Overall, just under half of enemy vehicles were engaged from the flank or rear, and squads were positioned to engage the enemy from the flank just over half the time. Contrary to anticipated results, squads positioned to engage the enemy from the flank and front were equally successful. The lack of difference between the two figures suggests that elements positioned to the front of the enemy's location or anticipated axis of advance were better able to apply the standoff and employment-in-depth fundamentals. Poor placement on the flank, in terms of fields of fire, could also be a contributing factor. There was no significant difference in the survivability of anti-armor squads placed to the front and to the flank.

When engaging enemy vehicles, it is best to do so outside their maximum range to achieve ***standoff***, another anti-armor fundamental. Standoff is an area of substantial improvement within Killer Troop. Data collected shows that

standoff was achieved in a minority of engagements for both Abrams tanks and Bradley Fighting Vehicles. Potential causes of these deficiencies are poor placement of anti-armor elements, both by mechanized infantry battalion (MIBN) commanders and anti-armor leaders, and poor reconnaissance of battle positions. Anti-armor leaders must know the capabilities of their weapons systems and make recommendations to the MIBN commander concerning the placement of their forces to achieve standoff and flank-shot engagements. Leaders must also conduct a physical leader's recon when possible to ensure the terrain and associated fields of fire in their battle positions allow adherence to these two fundamentals.

MIBN commanders must adjust plans based off physical leader's recons. After the failure of an offensive operation during Battle Period 3, SFC Anthony Dominguez, a platoon sergeant, suggested that AT-5s travel behind the MIBN main body during offensive operations. The purpose for this is to provide overwatch during friendly maneuver and to engage enemy vehicles that expose themselves to engage friendly forces. This would increase the survivability of friendly armored vehicles and of AT-5 systems who need to maintain standoff.

Mass and depth are the keys to anti-armor employment. Mass is achieved with mutual support, and depth is achieved with the ***employment-in-depth*** fundamental. Employment in depth is achieved by conducting more engagements at, or close to, standoff. During the rotation, anti-armor squads destroyed most of their total BDAs from their primary battle positions. Subsequent-position BDA, recorded up to the third subsequent position, totaled only a fraction of the BDA of squads' primary positions. Each squad averaged two battle positions per battle period. These figures show that anti-armor leaders may not be planning subsequent positions well enough or are failing to plan for them entirely. About half the AT-5 crews that received a CATK received it at their primary battle position, indicating that crews are staying at their primary battle positions too long. This increases the likelihood of the enemy discovering and targeting their vehicles.

Battlefield teammates – specifically infantry, Armor, engineers and artillery – mutually support anti-armor elements during battle. This fundamental is referred to as employment as part of a combined-arms team. Each vehicle commander (VC) was asked to rate the integration of his anti-armor element into the combined-arms effort of his MIBN. The average rating VCs gave their MIBNs was less than ideal, with platoon leader and platoon sergeant VCs' average rating only slightly higher than other VCs. To support their ratings, VCs commented on poor placement of squads, no task or purpose given, and no discussion of the tactical employment of their squads or sections with MIBN leadership. It is the responsibility of anti-armor leaders to advise the MIBN commander on the tactical employment of their AT-5s. VC comments also asserted that anti-armor elements be used as a MIBN asset, not as an enabler embedded into MIBN-organic platoons. Successful integration with MIBN forces in planning and execution of operations is essential to optimize AT-5 squads' support of the MIBN commanders' intent and objectives.

Cover and concealment, the final anti-armor fundamental, is critical to the survivability of anti-armor weapon systems. VCs conducted self-assessments each time their squad was destroyed to determine which fundamental failure led to their destruction. Of these instances, most of them were attributed to poor cover and concealment. Standoff came in second, but at only one third of those attributed to poor cover and concealment. Other comments recorded pertaining to cover and concealment are as follows: move slowly to avoid dust kick-up; follow and support friendly vehicles the enemy is more likely to target first; placement in a location the enemy does not expect you in is a form of concealment; and urban areas provide excellent cover and concealment. While smoke was readily available and aids in concealment, it was only used on one recorded occasion the entire rotation.

Cover and concealment is inseparable from receiving a CATK. Attack helicopters and indirect fires (IDF), in the form of bombs and artillery, are tied as the leading causes of CATKs for AT-5 systems. The Abrams was the third leading cause of death. For IDF, the presence of unmanned-aircraft systems was a precursor on almost all occurrences, and other friendly forces were exposed in the area on all occurrences. In light of these figures and with respect to cover and concealment, anti-armor squads should remain dispersed from other friendly units and each other with overhead concealment to negate both the effects and probability of receiving IDF. They should also seek cover at hull defilade at every opportunity during engagements. Using alternate, supplementary and subsequent positions aids in complicating enemy target-acquisition processes for using IDF.

Figure 3. A humvee from Killer Troop, 2nd Squadron, 11th Armored Cavalry Regiment, outfitted to replicate the Russian BRDM-2, an anti-tank combat reconnaissance patrol vehicle, battles a Bradley Fighting Vehicle during a decisive-action training rotation aimed at preparing units for future deployments. ***(Photo by SGT Erik Thurman, 11th Armored Cavalry Regiment Public Affairs Office)***

Although it does not fall under a specific fundamental, it was found that infiltrating an urban area in close proximity to the enemy is a very effective method of compromising his initiative and destroying the integrity of his combined-arms team. Of the total enemy vehicles destroyed over all four battle periods, a notable percentage of them resulted from the aforementioned infiltration company in Ujen during a single battle period. One platoon per battle period conducted this type of operation with the same success it would achieve in a BDA exceeding the total rotational BDA for Killer Troop's anti-armor forces.

All the fundamentals of anti-armor employment work together. Squads must use security to survive until the main battle; they must use cover and concealment and mutual support to achieve employment in depth; and employment in depth must be used to achieve standoff. All anti-armor crewmen must understand the application of these fundamentals to increase the lethality and survivability of AT-5 systems. The data collected validates doctrinal principles and should be used by anti-armor leaders and maneuver commanders to adjust their planning considerations and rehearsal priorities in future operations.

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Acronym Quick-Scan

ACR – armored Cavalry regiment
BDA – battle-damage assessment
BRDM – *bronirovannaya razvedyvatelnaya dozornaya mashina*
CATK – catastrophic kill
IDF – indirect fire
MIBN – mechanized infantry battalion
NTC – National Training Center
VC – vehicle commander

Reference

Field Manual 3-21.91, ***Tactical Employment of Anti-armor Platoons and Companies***, November 2002.