

Light Infantry Squad Vehicles: Keeping the Cavalry Lethal

by 1LT Charles B. Owens

The current change affecting U.S. mounted cavalry assets is the ability to rapidly maneuver in restricted terrain with minimal signatures. This change is on display in the 2022 Russo-Ukrainian War, and it's affecting how armor and mounted assets are viewed. As a result, the United States must seek lighter and smaller approaches to cavalry assets to disburse elements and extend supporting distances. This tactic has proved disruptive to Russian armor formations as Ukrainian utility terrain vehicles (UTVs) armed with anti-tank guided missile platforms are effectively attriting Russian vehicles.

U.S. forces should follow Ukrainian tactics in augmenting UTV-like platforms during testing throughout our cavalry squadrons. Current squadrons using platforms such as the Bradley M3, Stryker and humvee have focused on an anti-armor/armored personnel carrier style of fighting, the type of combat U.S. forces expect from Russia and China. With methods such as small unmanned aerial vehicles and Javelins prevailing as the modern tactics of the day, cavalry squadrons now face a dilemma of risking maneuverability over survivability in today's operating environment. With current tactics surrounding the ability to maneuver, we find through these recent conflicts that armored vehicles become key targets to our adversaries, putting us out of the fight instead of keeping us in it. By lowering vehicle signatures, U.S. cavalry forces can prevent becoming targets to enemy dismounts.

Solution

Adding platforms such as the MRZR Alpha (a new light tactical vehicle), the purpose-built, ultra-light Deployable Advanced Ground Off-Road (DAGOR) vehicle and the Infantry Squad Vehicle (ISV) would allow cavalry squadrons to add more flexibility and maneuverability to their elements while keeping unit signatures low. Creating platoons

with four humvees/two ISVs per platoon or three humvees/three ISVs will allow a mounted push/pull that will spoil near/far ambushes, protect platoons' flanks and lower platoons' battlefield signature while strengthening their ability to conduct reconnaissance.

Light vehicles in this realm allow troopers to extend their mutually supporting distances – creating vehicles purely for a platoon's dismounts – and allowing maneuverability while covering them with M-240L, M2 or MK19 machinegun platforms. These vehicle platforms also serve to push systems that are usually a burden to dismount teams – primarily anti-tank and anti-air weapon capabilities and larger, more reliable communication platforms – forward to the point of contention. This will allow dismounted teams access to key weapon and communication systems that enable cavalry troopers more flexibility with engagement criteria. It's also effective against heavily mechanized enemy forces that we expect to face in the future.

Field testing

Troopers of 3rd Platoon, Troop B, 3rd

Squadron, 4th Cavalry Regiment, 3rd Infantry Brigade Combat Team (IBCT), in 25th Infantry Division, Schofield Barracks, HI, tested both the MRZR and DAGOR platforms while serving as the opposing force (OPFOR) during the 2nd IBCT, 25th Infantry Division's "Nakoa Fleek" training exercise in Hawaii. Troopers used these platforms in three ways to:

- Extend the range of the platoon's screen in depth;
- Decrease the time to maneuver dismounts; and
- Increase survivability of observation posts (OPs).

The methods used to achieve this was by extending push/pull capabilities, maneuvering dismount teams farther from gun trucks to set up better long-duration OPs and simultaneously emplacing the vehicle in a hide site close by. The 3rd Platoon operated in a split-section concept, with two humvees and one light dismount vehicle. Both the MRZR and DAGOR were transported to the exercise by CH-47 helicopter air movement, certifying the ability to load the vehicles internally as well as by slingload.



Figure 1. 3rd Platoon, Troop B, 3-4 Cavalry Regiment conducts an air insertion to test DAGOR capabilities in diverse terrain during rapid deployment. (U.S. Army photo by 1SG Kristopher Moore, Troop B, 3-4 Cavalry, 3rd IBCT, 25th Infantry Division)



Figure 2. Soldiers test the Polaris MRZR Alpha platform through terrain previously impassable by current U.S. light platforms. (Photo by Polaris Government and Defense. Used by permission.)

Advantages identified

The 3rd Platoon found success using these platforms while conducting a screen for the OPFOR's defending company. Both vehicles allowed the platoon to emplace OPs advantageous to the OPFOR unit. With the MRZR's small signature, it allowed troopers to easily create a hide site the enemy did not find. This allowed 3rd Platoon to observe the enemy main element and inform the OPFOR company of the enemy's avenue of approach (AoA).

Furthermore, the DAGOR dismount team created a hide site and dismounted to an OP 75 meters from the platform in the enemy's main AoA. The DAGOR dismount team worked in a team with a M2 .50-caliber gun truck to support them 250 meters behind. Once in contact, the DAGOR team retrograded behind the gun truck that engaged enemy dismounts while the DAGOR moved to its secondary position and continued to observe enemy maneuvers.

Observers/coaches/trainers adjudicating the lane said the platoon-plus element the team encountered was engaged and destroyed by the actions taken by the DAGOR/humvee team. Therefore, pairing lightly armed and

maneuverable vehicles with MK19 or M2 gun trucks was what we found to be the best course of action for the platoon's mission.

Problems identified

Multiple issues were observed while testing the integration concept. Neither vehicle had the ability to mount a radio, which forced 3rd Platoon troopers to expend two of the dismounted radios. This limited the amount of OPs 3rd Platoon could establish. Allotting platoons more dismounted 163 radio systems will allow them to have better communication and distance in a screen.

Both platforms have limited armor protection capabilities and could be

decisively engaged by an M4 carbine system. Mounting M-240Ls on all similar platforms would not stop rounds from penetration but could provide suppressive fire long enough for a less lethal retrograde.

In the thickly vegetated Jungle environments inherent to 25th Infantry Division's area of responsibility, both platforms would be restricted in their maneuver off main supply routes, putting them in the same dilemma as current platforms. In this scenario, fully dismounted units would continue to prevail.

Overall

Evaluating the MRZR/DAGOR platforms validated new strategies for platoon-sized elements to successfully conduct reconnaissance. The 3rd Platoon's recommendation is for the U.S. Army and Chief of Armor to continue to validate new mounted tactics with similar vehicles and begin fielding them to all squadrons in infantry and Stryker brigade combat teams.

Every squadron across the Army would see great benefits by using these platforms. Therefore, testing should continue for this concept in longer mission sets such as at the Joint Readiness



Figure 3. Students assigned to XVIII Airborne Corps' DeGlopper Air-Assault School prepare to slingload a Polaris DAGOR vehicle onto a UH-60 Black Hawk helicopter assigned to 2nd Assault Helicopter Battalion, 82nd Combat Aviation Brigade, at Fort Bragg, NC. (U.S. Army photo by CPT Adan Cazarez, 82nd Combat Aviation Brigade)



Figure 4. A UH-60 Black Hawk helicopter assigned to 2nd Assault Helicopter Battalion, 82nd Combat Aviation Brigade, lifts a Polaris DAGOR in support of XVIII Airborne Corps' DeGlopper Air-Assault School on Fort Bragg, NC. (U.S. Army photo by CPT Adan Cazarez, 82nd Combat Aviation Brigade)

Training Center at Fort Polk, LA, and the National Training Center at Fort Irwin, CA.

Seeing the concept work in a jungle environment points to validation-of-concept at squadrons across the Army. The squadrons should begin to test effectiveness across the multiple environments where the Army organically operates. Moreover, units should focus on training and validating dismounted OP teams and emplacing Javelin teams.

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ACRONYM QUICK-SCAN

AoA – avenue of approach
DAGOR – Deployable Advanced Ground Off-Road
IBCT – infantry brigade combat team
ISV – Infantry Squad Vehicle
OP – observation post
OPFOR – opposing force
UTV – utility terrain vehicle