



By Josh Suthoff

As military planning, prioritization, and resources comes back to Large Scale Combat Operations (LSCO) there must be a professional discussion on modern cavalry operations and capability gaps. The US Cavalry needs light weight, mobile, and manned platforms to pair with the dismounted scout. Scouts with the capability and the mandate to operate with increased risk will help close the reconnaissance and security capability gap. Regardless of the US military's fascination with costly continuously evolving technology and complex systems, the scout and cavalry squadron remain the only reliable all-weather sensor.

US Forces cannot afford to be surprised by the enemy due to weather or other factors as they were during the Battle of the Bulge or the opening days of Operation Cobra. Unlike the invasion of Iraq, the US will likely face a near peer that is highly mobile with well-trained reconnaissance units and refined sensor to shooter systems. The recent Iranian shoot down of a US Global Hawk shows that the perceived US overmatch in Intelligence, Surveillance, and Reconnaissance (ISR) assets is misconceived. In the next LSCO, there is no guarantee

that the US will be able to engage the nation's industrial base in a timely manner to meet operational objectives. The COVID pandemic and shortfall of ventilators and other PPE showed that the US industrial base is not as reactive as assumed and supply chains are not guaranteed. Historically the US Army fares poorly in the opening engagements of a conflict. State actors like Russia and China have spent years developing their tactical and operational goals and timelines. The advanced enemy planning paired with the speed of information or propaganda on social media makes an early loss unacceptable and politically untenable.

In his book *To Fight or Not to Fight?*, Dr. Cameron explains the almost century long struggle with finding the right cavalry platform. Army leaders have struggled to balance the need for mobility, survivability, and fire power. The cavalry squadrons have firepower and survivability, but this has come at the price of mobility. The addition of a light and mobile platform will increase the mobility and lethality of an often overlooked asset, the dismounted scout. Accepting this risk will save lives and facilitate the true end state R&S tasks: retain freedom of maneuver and preserve the commander's decision space. Adding the light capability will also increase the effectiveness of the current US reconnaissance squadrons by ensuring they have the all the tools to temper their reconnaissance tempo to meet the mission.

The Iranian shoot down of US ISR and erratic European weather (both historic and climate change driven) shows that the US cannot rely solely on high end unmanned aerial systems (UAS) to penetrate the enemy's forward line of troops (FLOT). In LSCO, both the anti-denial/access and electronic warfare threat will likely drive combatant commanders to keep their limited ISR platforms in reserve (regardless of reconnaissance fundamentals) until threats are reduced. Special operations reconnaissance assets will likely be engaged in strategic level collection. As Vladimir Putin attempts to retain power indefinitely, an annexation of the Baltics is a very realistic LSCO scenario. The deployment of "little green men", cyber-attacks, the swift closure of the Sawalki Gap, and rapid isolation of forward US forces is a likely course of action. In this scenario, the US will struggle to maintain situation awareness during the initial surprise, opening conflict, and the following second move. The onus to develop the situation, especially at the BCT level, will fall to the cavalry SQDNs. Corps and division commanders cannot afford to miss tactical and operational opportunities that scouts could observe. In a future operating environment with limited personnel and specialized equipment the US cannot afford for a division main body to be surprised or operational level opportunity missed.

The Shortfall and Solution. Currently, cavalry squadrons (SQDN) in Armor and Stryker

brigade combat teams (ABCT and SBCT) conduct reconnaissance with vehicles organic to that formation. Frankly, Strykers and Bradleys are not the right vehicles for all R&S tasks, especially against a dynamic enemy in a complex environment. Restrictive terrain and urban environments quickly reduce maneuver and increase the number of viable enemy positions. The Bradley has a large and loud profile while the Stryker does not have sufficient armor to survive chance contact. The Stryker's shortfall reduces its ability to gain and maintain contact. These are excellent warfighting vehicles, but they are weapons of war that need conditions set for them to be successful. In ABCT and SBCTs, dismounted scouts must stay relatively close to their support vehicle or risk being left behind or over taken by mounted enemy formations. The speed of the dismounts limits the depth and standoff they can provide their support vehicle. To close this capability gap the Army must add a light platform, like the Ground Mobility Vehicle (GMV 1.1s), MRZR4 all-terrain vehicles, or a comparable quad, to pair with the larger combat vehicles already organic to the cavalry SQDN. These platforms should be powered by a combustion or electric motor. For simplicity going forward the article will refer to quads or MRZR4 type vehicles as a Light Scout Vehicle (LSV). Adding a LSV capability will not only preserve combat power, but increase the lethality and capability of the dismounted scout.





Figure 1- GMV 1.1 (left), MRZR (right)

When operated correctly, LSVs would scout at the lead of a cavalry formation to determine viable routes, locate enemy engagement areas, identify targets for paired Bradley or M1A3 Abrams, rapidly move javelin teams into key terrain, and spoil anti-armor ambushes. Most importantly it provides multiple dilemmas to the enemy commander. When faced with the uncertainty of a LSV in the engagement area, does an enemy commander waste ammunition on an engagement exposing his position? The enemy now has to consider if the LSV is alone, the lead element for heavy armor, or cueing additional air or indirect fire assets for support?

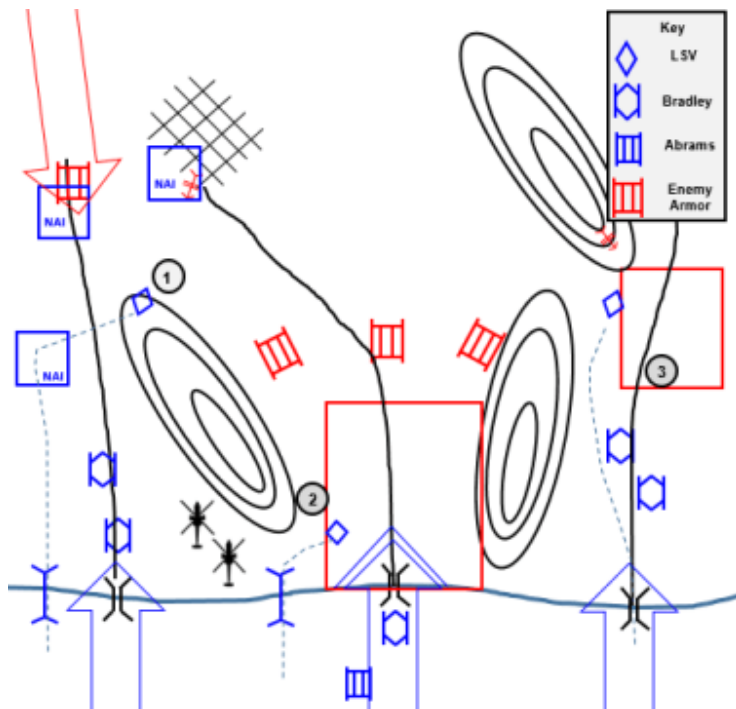


Figure 2 Concept of LSV operations

Concept of Operations:

- **Scenario 1, a LSV paired with a Bradley section conducts a rapid reconnaissance of NAIs, it quickly emplaces dismounted scouts in an observation post allowing observation of a suspected urban AT ambush with organic small UAS. Serving as a forward screening element the observation post detect enemy armor moving through their AO and is able to direct the paired Bradley team into a successful hasty engagement.**
- Scenario 2, a LSV paired with an Abrams/Bradley team crosses a water obstacle using a bridge with a low weight restriction. It is able to maneuver into an enemy engagement area where dismounted scouts can direct air weapons teams, friendly armor, or indirect fire onto enemy battle positions.
- Scenario 3, a LSV paired with a Bradley team conducts offset route reconnaissance and is able to spoil an AT ambush oriented on friendly armor.

LSVs embody the Fundamentals of Reconnaissance and Security. LSVs give a SQDN commander flexibility and allow him to bring the full joint capability to bear in their area of operations. A light open air vehicle increases a dismounted scout's mobility while maintaining their situation awareness. LSVs equipped with sensors and radios can rapidly move scouts to an OP to observe and then call for organic indirect fire, joint firepower, or the direct weapon systems of a paired Bradley or Abrams. A smaller and agile platform allows a commander to maintain contact, but also gain that contact with the smallest possible element. LSVs maneuvered forward or on the flank of a screen are a small signature, but can provide a big dividends in early warning for a commander. This capability also provides additional dilemmas to the enemy commander. Instead of watching the one bridge capable of supporting a tank or Bradley, he now has to commit combat power to cover the multiple infiltration routes a LSV could use.

As Russia invests and hones its sensor to shooter TTPs the LSVs can provide the same capability. Scouts equipped LSVs can move drones farther forward to extend their range and create additional confusion for the enemy. LSVs in hide sites outside of major urban areas can loiter and sustain longer giving the commander a better idea of the current situation in their AO. The light weight means that LSVs can be moved via rotary or fixed wing aircraft thus providing further options for infiltration of observation posts and screening operations.

LSVs Preserve Strategic Combat Power. The opening engagements of a conflict in Europe will likely lead to a high loss in Abrams, Strykers, Bradleys, and perhaps most importantly unmanned ISR. The inventory for these platforms are limited and not easily replaced. US combat vehicles are the German Tiger Tanks of the current age. The Tiger was arguably the most lethal tank of its time. It was also complex and overwhelmed by swarms of cheaply made T-34s or Sherman tanks. Once lost or damaged it was not easily repaired or replaced. The Abrams is comparable, growing to such a weight and size that it cannot easily be moved or maneuvered due to weight (line haul restrictions, bridge capability) and height (tunnel and bridge restrictions). Enemies of the US know they don't need to build a comparable tank, they only need to defeat it by ever advancing AT threats or focusing on vulnerabilities. Increasing the mobility of the scouts around friendly armor increases the survivability of the entire formation.

Armored Brigade Combat Teams (ABCTs) are incredibly lethal, but they also have significant weak points. How long will it take the US to replace a brigade of combat power during opening engagements or if an aggressor sinks a cargo ship full of tanks and fighting vehicles before it reaches theater? The US will likely not enjoy freedom of shipping lanes or have time to fully engage the industrial base before a state actor has reached their

operational goals. LSVs are cheap in comparison to other combat vehicles and are simpler to mass produce.

Squadrons will operate under higher risk. Are Scouts operating LSVs at more risk? Absolutely. But is the use of LSVs more risky than a dismounted scout, or worse a scout squad that fails to dismount from the back of a Bradley or Stryker? This increased risk is assumed to buy down the risk for the main body (preserving combat power) and also providing space and time for commanders. LSVs leverage mobility and supporting firepower (indirect, joint, supporting direct (Abrams and Bradley)) to mitigate the lack of protection. Using a LSV to drive down a main roadway in front of a formation is wrong, but using its mobility on the flanks to spoil enemy engagements is worth the risk and simultaneously maintains momentum.

Additionally, the Army must review its acceptable risk when scouts operate in front of the supported unit. This change needs to include how combat training centers (CTCs) evaluate a unit's mission risk assessment. Died of wounds rates will be high in cavalry organizations because they are forward assuming the risk for the main force. A cavalry SQDN, regardless of a LSV capability, will likely take heavy losses because of the nature of the fight. However providing scouts with a vehicle that can get to a point of injury in restrictive terrain would reduce a casualty's time to next level care. LSVs provide additional capability, but also provide time and space to preserve SQDN and ultimately higher headquarters combat power.

Ways to Buy Down Risk. The Army and commanders could buy down risk for cavalry SQDNs in multiple ways. First they can create standing cavalry regiments with the permanent mission essential task of reconnaissance and security. Second extend the time that officers, NCOs, and Soldiers serve in these regiments or BCT squadrons. Longer station time in a SQDN builds professional knowledge and understanding of the higher risk mission. Most importantly it prevents institutional knowledge loss due to personnel turnover.

The ability for LSVs to carry extra supplies for the scouts also helps reduce their need to move and refit. If the screen line is compromised they have the supplies to remain in position until the tactical situation changes. Extra batteries and more powerful radios ensure that a Scouts most important weapon, the radio, is kept in the fight.

LSVs are a Tool. A LSV is a tool that gets scouts and sensors forward quickly, expanding both standoff and increasing situational awareness. The reality is that the military is likely entering a period of fiscal austerity as the country fights out of the COVID pandemic. Austerity that will likely degrade or extend the Army's timeline to field the next generation

combat vehicle. SQDNs in Infantry BCTs (IBCTs) have already started implementing these type of vehicles in their formations and tactics. LSV platforms are a cheap off the shelf capability that can preserve combat power and increase lethality. Vehicles that can be easily repaired in a forward unit maintenance collection point. Organic scouts that normally ride in the back of Bradleys or Strykers would man the LSVs. A Scout Platoon would be task organized with three LSVs to pair with each section of organic vehicles. Detractors to the use of LSVs in a kinetic LSCO fight will point to a lack of survivability/armor. In order for platoons and sections to maintain contact they must either carry their dismounts or leave them behind, always balancing speed with the probable line of contact. Failing to dismount at the appropriate time leads to the destruction of a combat vehicle and its entire crew and dismounts. A LSVs speed, mobility, and low audio and visual signature help mitigate the lack of protection.

In conclusion, the US Cavalry needs vehicles that can balance the inherent shortfalls in the current inventory. The Army should begin testing LSVs in the multiple European exercises to validate the concept. CTCs should compare the performance of squadrons that fight with or without LSVs. Bridging the R&S shortfall protects overall unit combat power, provides decision space for a commander, and most importantly provides flexibility for the dismounted scout. Planning for the next LSCO with the assumption that the US Army rapidly replace complex combat vehicles in a timely manner is flawed. The options that LSVs provide the commander outweigh the increased risk and perceived shortfalls.

The views expressed are those of the authors and do not reflect the official position of Human Resources Command, the Department of the Army, or the Department of Defense.

MAJ Josh Suthoff is married with four kids and has served at Ft. Campbell, Ft. Bragg, Eglin AFB, Ft. Carson, and Ft. Knox.

*Cameron, Robert . *To Fight or not to Fight? Organizational and doctrinal trends in mounted maneuver reconnaissance form the interwar years to Operation Iraqi Freedom.* Fort Leavenworthk: Combat Studies Institute, 2010.*

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