Reforge the Broken Saber: Evolving the Infantry Brigade Combat Team's Cavalry Squadron to Win the Recon Fight

by SGT Christopher Broman

Part 2 of 2

In Part I we discussed squadron and troop organizational solutions. In this part we'll look at suggested technology, as well as more Soldier and vehicle solutions that support the organizational solutions proposed in Part I.

Squadron, platoon and squad UAS

"Aerial reconnaissance conducted by [unmanned aerial systems (UAS)] ... provides a flexible, low-risk means for gaining basic information in the least amount of time," according to Army Technical Publication (ATP) 3-20.98, ***Reconnaissance Platoon***.[1] The rise of UAS in both military and civilian applications has effectively demonstrated the accuracy of this.

Currently the only organic UAS available to the squadron are the Raven systems at troop level. For aerial information collection (IC), a UAS needs to be at every level from squad to squadron. These systems should be man-portable at the lowest level, scale up in size and capabilities at the next higher element, and have vertical take-off and landing (VTOL) capabilities.[2]

At squadron level, a RQ-7B Shadow should be the assigned UAS asset. With its nine hours' endurance from take-off to landing and a variety of intelligence, surveillance and reconnaissance (ISR) capabilities, it is the ideal system to help support the squadron.[3] In the infantry brigade combat team (IBCT) and armored BCT, the one Tactical Unmanned Air Vehicle (TUAV) platoon is at the brigade level, but the Stryker BCT squadron has one organically in its surveillance troop.[4] Instead of placing a full platoon, the Shadow also has an early-entry configuration of 15 Soldiers, one ground-control station, the air-vehicle-transport humvee and a launcher trailer, all of which are sling-loaded under a Chinook and can be placed in the headquarters and headquarters troop (HHT).[5]

While a simpler solution might be to simply create operational control of the brigade Shadow to the squadron, at any point the brigade commander can retask that asset, once again leaving the squadron without its own UAS.

At troop level, the platform used is the RQ-11 Raven. With its 60- to 90-minute flight time, "disposable" design (by not storing data onboard) and relative ease of use, it's a good system to be used from a stationary position like a tactical-operations center (TOC).[6] Unfortunately this does not translate well to a reconnaissance platoon that neither has the time to stop and set up the system or wait for the UAS to return so it can move.

Another issue is that with only two complete systems per troop, the commander is forced to split his UAS between named areas of interest (NAIs) and his maneuver elements. Instead, the platoons themselves should also have a UAS to assist in their missions, thus freeing up the Raven to focus solely on troop-level taskings.

While there are many different types of UAS available, the best for platoon operations is the quadcopter. Research has shown that quadcopters are the "most versatile and mechanically easy to construct autonomous aerial vehicle."[7] This simplicity of construction has led to them being readily available in the commercial market and has seen their use by threat forces. During the Battle of Mosul, the Islamic State in Iraq and Syria flew more than 300 missions in one month, one-third of these being armed strike with off-the-shelf $650 quadcopters.[8]

Quadcopters are extremely easy to use, cheaper to replace and have an increased level of maneuverability over systems like the Raven. They are so agile that the Drone Racing League flies them over the seats and through the concourses of the Miami Dolphins stadium at speeds approaching 80 mph.[9] Quadcopters are also VTOL systems, so to launch one, operators just have to hold their hands outside their vehicles – unlike the Raven, which requires low wind conditions and being thrown, which can sometimes lead to a nearly 40-percent failed launch rate.[10] This means a scout platoon with a quadcopter can easily launch or recover this system on the move, be able to use it

even in dense urban or forest environments, or even land the quadcopter to use the platform as a remote camera – all things the Raven could not attempt.

The use of quadcopters at the platoon level is already being done throughout the military. The Navy and Marine Corps Small Tactical Unmanned Aircraft Systems Office (PMA-263) ordered 800 quadcopters to include them organically in infantry squads.[11] At the Hohenfels Training Area, quadcopters with 1st Battalion, 4th Infantry Regiment, led to more fire missions than any other collection source.[12]

Figure 1. SGT Christopher Curley, an infantryman with small-UAS-operator duties assigned to 1-4 Infantry Regiment, Joint Multinational Readiness Center, Hohenfels, Germany, recovers a quadcopter through a second-story window during Combined Resolve X. Combined Resolve X included about 3,700 participants from 13 nations at 7th Army Training Command's Grafenwoehr and Hohenfels training areas. Combined Resolve X also tested the U.S. Army's regionally allocated combat brigades to Europe in a combat-training center rotation that had a Joint, multinational environment. *(U.S. Army photo by 1LT Matt Blubaugh, 145th Mobile Public Affairs Detachment)*

The Army should follow the Marines' procurement example and assign two systems to each scout platoon, one per section. With these systems, platoon leaders are given a flexibility and redundancy of sensors previously unavailable. UAS integration into the reconnaissance plan should become the rule, not the exception it currently is, leading to an increased effectiveness in regard to IC.

Improving counter-UAS

The increasing use of UAS on battlefields across the world has demonstrated not just their effectiveness but also the difficulty in effectively countering their use. In the ***Russian New Generation Warfare Handbook***, there is an example of Ukrainian units observing eight Russian UAS overflights per day, causing inhibited movement and instilling a fear of being spotted.[13] In 2014, near the Ukrainian village of Zelenopillya, Russian unmanned systems identified a halted Ukrainian column and inflicted heavy casualties through indirect fire.[14]

Currently the guidance given is that if small UAS (such as Ravens or quadcopters) are observed over a unit's position, it is presumed that position is already compromised and the unit must attempt to engage and destroy the UAS with any organic means possible.[15] The choice units currently face is to either stay still and hope they weren't seen or to open fire, trying to shoot down a small drone with no guarantee of success while giving away the unit's position. With larger systems, the size of the Shadow or Predator, the squadron currently has no organic means of countering these threats.

By adding electronic warfare (EW) to the squadron organization, the possibility of jamming enemy UAS becomes available. This technique has been proven in Syria by the Russians, who have been able to jam the Global Positioning System (GPS) components of U.S. drones.[16] The EW vehicles can be used to create an interference "bubble" to help prevent observation by threat systems. For larger systems that fly well above the range of small-arms fire, this would be a potentially effective counter.

At the scout-platoon level, simply shooting at the drone is not the most effective way of removing the threat. Instead, new anti-drone rounds or systems need to be implemented. One example is the IXI Dronekiller currently being tested by the Army and Marines. Weighing 7.5 pounds, possessing a range of one kilometer and a total training time of a couple of minutes, this weapon can scramble the GPS signal of smaller drones, forcing them to either land or go back to their controller.

A newer version the size of a M203 grenade launcher, with the ability to be mounted under the weapon, is also being developed.[17] Another possible answer is a 40mm-grenade round that launches a small net to entangle drones. Developed by a team of researchers at the Armament Research, Development and Engineering Center at Picatinny Arsenal, NJ, testing showed the round outperforms other net-centric tactics like dragging a net from another drone.[18]

With Mk-19 and M320 systems readily available in the scout platoons, this could be a more readily available and cheaper option available for units to use to down enemy UAS.

For larger systems such as the Russian Dozor-100 or Forpost systems, which can reach altitudes of 4,200 to 6,300 meters,[19] scout platoons should have one to two Soldiers trained on how to use the FIM-92 Stinger. This would not only help defeat larger UAS systems but also give line units a desperately needed counter-close-air-support (CAS) ability. Already the Army Chief of Staff has made a priority an initiative to get Europe equipped with short-range air defense (SHORAD) Stinger teams to provide air defense to maneuver units.[20] The Stinger system could replace one of the four Javelin systems in the scout platoon.

Figure 2. SGT Nicolas Kotchenreuther, a Stinger team leader, rehearses firing Stinger missiles with SPC Cody Perez. Both Soldiers are assigned to 4th Squadron, 2nd Cavalry Regiment. *(U.S. Army photo)*

Improved C2 vehicles

The current TOC system of two interconnected Deployable Rapid-Assembly Shelters (DRASH) is ineffective and inefficient. To establish the squadron command post (CP), two shelters must be put up in an area large enough to accommodate both, followed by generators hooked up, wires run, tables and computers set up, OE-254s erected and the satellite dish emplaced. All this takes time and makes it hard for the TOC to break down and "jump"

quickly, especially if dealing with an indirect-fire situation. This set-up also creates a massive visual and electronics signature for enemy forces to detect and destroy.[21] Currently the operational force is seeking to standardize CPs that are austere, mobile, expeditionary and able to match mobility with the subordinate maneuver forces.[22]

The Army has already been testing these concepts. For the last six years, 2nd Brigade, 1st Armored Division, has been the Army Experimental Task Force for the Brigade Modernization Command and the Army's Capabilities and Integration Center.[23] Through testing, the brigade CP plan went from 11 Air-Beam tents off one large tent with three 40-foot wings – requiring a setup and teardown time of between 10 and 20 hours – to four M1087 Expandable Vans, two M1079 2.5-ton vans, two Light Medium Tactical Vehicle-linked Sesolinc containers and one 20x32-foot tent.[24] This improved plan aligns with the Army's Command Post 2025 vision, which emphasizes integrated, scalable CP models over legacy systems that require hundreds of feet of cable, stacks of transit cases and multiple tents.[25]

Figure 3. Soldiers assigned to 2nd Armored Brigade Combat Team, 1st Armored Division, perform mission-command functions during the Army's Network Integration Evaluation 16.1 at Fort Bliss, TX. *(U.S. Army photo)*

Instead of the DRASH system, the squadron CP should use multiple M1087 expandable vans. The M1087 includes blackout lights, is maneuverable, is able to tow generators, can mount a turret ring and machinegun for defense, and is able to have a Quick-Erecting Antenna Mast (QEAM) installed. The 1-12th Infantry Regiment, 2nd BCT, 4th Infantry Division, tested this by installing a purpose-built table that housed all computer workstations, voice communications, associated supporting equipment with their cables and analog trackers.[26] This setup reduced the time from when the CP stopped to when it was operational, and likewise for teardown.

The squadron should take the preceding example of the M1087 and issue one each to the S-2, S-3 and S-4, and hold a fourth for other staff functions. Each truck would come with its own generator and turret ring with a crew-served weapon. With this set-up, the S-4 vehicle would serve as the combat-trains CP, and the other three vehicles can either be dispersed or put in a laager based on the tactical situation. With the addition of the four gun trucks to HHT, the machineguns mounted on the expendable vans and the two gun trucks currently assigned, the squadron command team and staff are now able to self-secure during movement.

The troop command also requires an improved command-and-control (C2) vehicle. For most troop TOCs, the vehicle used is a humvee truck with a shelter secured in the back. A QEAM is mounted on the side, plus other antennas are mounted for use while moving. While this vehicle works, the problem is that the full functions can only be used when the vehicle is stopped. While on the move, the troop command is responsible for all battle

tracking, reporting and potentially updating products – all while logging everything into the daily staff log with no other support.

Another issue is that if someone has to be in the back with the radios, and if another Soldier is up front with the Joint Battle Command Platform (JBC-P), it is difficult for the two to communicate with each other. If the squadron requires an improved C2 vehicle to support the reconnaissance effort, this is doubly so for the troop command.

Figure 4. Combined-arms battalion (CAB) mobile tactical CPs are M1068 tracked vehicles with integrated mission-command and radio capabilities, allowing commanders to "command from the hatch." *(U.S. Army photo)*

Instead of creating a vehicle from the ground up, a current version of the humvee family of vehicles could be modified to accomplish this goal. Examples include the front-line ambulance or the M1113 Expanded Capacity Vehicle. This new troop-command vehicle needs to allow someone to safely operate all the radios, update trackers and support the troop command while on the move. The new vehicle needs to have a QEAM mounted; multiple Single-Channel Ground and Airborne Radio System radios; a Harris radio system; One-System Video Remote Terminal (OSVRT) and JBC-P. The vehicle also needs to be able to tow a trailer with an Advanced Medium Mobile Power Systems generator installed inside. This would create a platform able to function in high-tempo operations without losing effectiveness.

If no other change happens, then at the very least the OSVRT needs to be installed in the vehicles of the TOC, platoon leaders, troop commanders, S-3, S-2 and squadron commander. As of now, per modified table of organization and equipment (MTOE), most of the squadron has no organic method to view the full-motion video of ISR platforms.[27] This system would allow the ability of drone feeds to be viewed at the platoon level while on the move. This laptop-like system has an adaptor kit so it can operate from almost every Army vehicle.[28] It was already tested in 2015 when a Stryker brigade used the OSVRT from the brigade to the company level during a National Training Center rotation.[29]

If adapted to view quadcopter unmanned aerial feeds, this would give the entire squadron leadership the ability to view feeds from all of its available UAS assets in real-time. This would reduce the delay of having to rely on others to describe what they are seeing to lower levels, but instead improve our overall situational awareness and ability to quickly react to developing situations.

Intel analyst at troop level

Operations in Afghanistan and Iraq highlighted an increased need of troop-level intelligence support. As stated in ATP 3-21.21, "The Army has identified that maneuver companies require an intelligence capability to support

bottom-up intelligence refinement during long-term or extended operations."[30] This demand was filled with the use of company intelligence-support teams (CoISTs), but when most of the parent units returned home from deployment, the CoIST teams disappeared. This was because CoISTs were mainly composed of non-intel Soldiers, so when the deployment ended, they went back to their original duties.

Figure 5. SPC Kevin Muirhead, a Soldier with the CoIST of 4th Battalion, 9th Infantry Regiment, Combined Task Force 4-2, in-processes a member of the local community during a medical civic-action program in Afghanistan in 2013. *(U.S. Army photo)*

Though the CoIST disappeared, the need did not. This needs to be changed with the permanent addition of an E-5 intelligence analyst at the troop level.

This position would be responsible for many of the same responsibilities the traditional CoIST team had. These include collecting and analyzing patrol briefs, generating intel products for the commander, conducting intelligence preparation of the battlefield for troop operations, recommending priority information requirements and providing both situational awareness and situational understanding.[31]

An additional duty would include being in charge of the troop's UAS assets. The intel analyst would ensure all operators are meeting certification requirements, conduct training, ensure equipment is serviceable and report this to the squadron S-2 cell.

Since the squadron would traditionally be out in front of the brigade, there is a good chance subordinate units would capture enemy prisoners of war. The intel analyst would be responsible for collecting these prisoners, complete and maintain their packets, and track their current location and status. They would also be the first point of contact with any human-intelligence (HUMINT) assets working with the troop, enabling intelligence to be processed and analyzed more quickly than if they had to wait until returning to squadron. The troop commander could also attach the intel analyst to a forward unit to exploit any time-sensitive information and assist with material collection.[32]

This new position would be used as a developmental post for the S-2 section. New intel analysts would start at squadron, learning and improving their skills. Once they became promotable, they would pick up their sergeant in the troop intel slot. The troop commander then gains a trained intel Soldier with the knowledge of how to best prepare information for the squadron, and the new noncommissioned officer (NCO) gets experience operating in a high-tempo field environment. When the analyst returns to the S-2, he/she will have working knowledge of IC and processing at all levels of the squadron.

This new position would not require much in terms of equipment to become operational. The JBC-P already has Tactical Ground Reporting System access natively built into it, meaning it could potentially work from any vehicle in the troop. Personnel would also need access to an OSVRT system, but if these are added to the TOC and command vehicles, this would be easily accomplished. The only additional equipment would be a laptop to help create products and a radio on the operations-and-intelligence net to communicate directly with the S-2 cell or HUMINT.

Soldier, truck improvements

Currently cavalry Soldiers are equipped and expected to use the same equipment as any infantryman or truck driver. If the IBCT squadron is to be a specialized organization, completing a specialized task, it needs to be equipped as such. This means improving body armor; issuing suppressors, wrist-worn GPS and hearing protection with communication capabilities; and increasing the number of squad designated marksmen (SDM) rifles in the platoon. Trucks in line platoons would also have a swing-arm mount installed in the gunner's position with another automatic weapon mounted on it.

While body armor is extremely important and has saved countless lives during the Global War on Terrorism, it is essentially parasitic weight that does not contribute to the Soldier's effectiveness until it has to stop a lethal threat. Per a report commissioned by the Army Research Laboratory, "Increased Soldier load not only slows movement and increases fatigue but also has experimentally demonstrated to decrease situational awareness and shooting response times."[33] An example of the impact this increased weight has is that from 2004 to 2007, one-third of medical evacuations from the battlefield were due to spinal, connective tissue or musculoskeletal injuries – twice as many injuries as were sustained from combat.[34] Body armor is still very important for helping saving lives, but how it is used needs to be improved.

The newest system, the Modular Scalable Vest (MSV), aims to create a method for Soldiers to scale the level of protection based on the threat expected. The problem is that instead of allowing the troop commanders to delegate what to wear, most senior leaders will blanket-order that all pieces must be worn for Soldier safety. This "one size fits all" approach ignores the different mission requirements among the organization's subordinate units. While an infantry platoon conducting an assault on a defended position might require the additional six pieces of protective gear for the Improved Outer Tactical Vest (IOTV) or the new Blast Pelvic Protector for the MSV, a scout section sneaking into a listening post/observation post overwatching an NAI does not.

Figure 6. SPC Hannah Carver-Frey, a chemical, biological, radiological, nuclear specialist with 10th Chemical Hazardous Response Company, participates in the final round of field testing for the MSV during a week-long series of evaluated tasks at Fort Carson, CO. *(U.S. Army photo)*

Also, this one-rule mentality goes against the Army Research Laboratory's recommendation, which stated that the service "should clearly delegate authority to company-level commanders to modify the level of protection as needed, based on the specific threat and mission."[35] This includes the possibility of leaving the body armor behind entirely if the mission requires it, such as a multi-day dismounted-reconnaissance patrol.

As with any new piece of equipment, fielding generally takes time; it's no different with the MSV. As units start replacing their old protective system, those not slated to receive them for a while (such as National Guard squadrons) should instead be temporarily issued the Soldier Plate Carrier System. First fielded in 2009, it weighs about nine pounds less than the IOTV.[36] Combined with the new Ballistic Combat Shirt, Soldiers with this system would have the same level of protection and maneuverability as troops with the new system.

In the same vein, Soldiers should be allowed to wear battle belts if they own them. These are already being issued as part of the new Load Distributing System developed by the Natick Soldier Research, Development and Engineering Center. Consisting of a load-bearing spine system and battle belt, and weighing only 1.5 pounds, the goal is to distribute weight to the waist to reduce injuries.[37] Until issued this system, Soldiers should be allowed to wear their own to get this same benefit.

Another improvement that needs to be implemented is in the area of hearing protection. The Defense Department's Hearing Center of Excellence wrote in an email that one in five Soldiers suffers from hearing loss, based on data from 2013.[38] This is backed by a Department of Veteran Affairs report that pinpointed tinnitus and hearing loss as the most common service-related disabilities among veterans, resulting in almost $1.1 billion paid out for hearing-related injuries in 2009.[39] While Soldiers are typically issued earplugs, few wear them while conducting operations. This is because they block out all noise, reducing the ability to hear commands and listen for both enemy and friendly troop movement.

Cavalry-squadron Soldiers instead need to be issued systems that combine both hearing protection and the ability to be integrated into existing radio equipment. One example is the Tactical Communication and Protective System (TCAPS), a high-tech hearing-protection system that can deaden loud noises while also improving ambient sounds necessary for situational awareness.[40] This headset is also designed to connect to a Soldier's communication gear to help improve overall C2. Initially fielded in 2014, more than 20,000 units have been issued since then.[41]

Figure 7. A Soldier wears TCAPS to protect his hearing in the field but also to help improve overall C2. *(U.S. Army photo by SGT Betty Boomer)*

In addition, scouts should also be equipped with suppressors for their rifles. Lowering the noise from friendly weapons fire would not only help improve verbal communication during a firefight but also reduce the ability for enemy forces to quickly locate the scout's location. The Marines have already tested this by equipping an entire infantry battalion with suppressors.[42]

Other equipment that needs to be issued includes wrist-worn GPS receivers for team leaders to assist with dismounted tasks. The prevalence of these systems in combat-arms units, particularly the Garmin Foretrex series, has clearly demonstrated their effectiveness. While more susceptible to EW measures than the Defense Advanced GPS Receiver (DAGR), due to the DAGR having a communications-security fill, they are far easier to carry, are just as easy to use, require fewer batteries and have the same functionality. It was for some of these same reasons that in 2015 the Army reached out to industry leaders for wrist-worn GPS receivers for use in the Middle East.[43]

The 2015 Small Arms Capabilities-Based Assessment stated that "squads must have an organic precision-fire capability to engage select personnel targets from zero to 600 meters."[44] To fill this need, some units equipped their SDMs with the M14-based Enhanced Battle Rifle. Unfortunately, there are many cavalry squadrons, particularly National Guard formations, which do not have these weapon systems assigned. While units may still be sending Soldiers to school for the training, when those Soldiers return, there isn't a weapon platform for them to use the skills they learned. With the new 3x9x36 organization, the cavalry is moving toward at least three SDM rifles in every scout platoon. By establishing this per MTOE, the troop commander will now have improved precision-fire capability, and SDMs would gain an improved weapon system.

Operations worldwide have shown that gunners need to be able to effectively engage targets in "vertical danger areas" such as the mountains of Afghanistan. The increased probability of units fighting in dense, urban megacities – which will, of course, include high-rise buildings – highlights the need to have this capability. In Afghanistan, many trucks were equipped with a second weapon system attached to a mount in the gunner's hatch to address this problem. Whether using a purpose-designed swing-arm mount or a standard stovepipe welded to the inside of the turret, these "eagle mounts" gave gunners the ability to engage near-vertical targets with automatic-weapons fire.

These need to become standard equipment on platoon vehicles. Not only would it provide increased engagement capabilities, but in effect it would provide a back-up M240 or squad automatic weapon in case the primary M2, Mk19 or tube-launched, optically tracked, wire-guided missile became disabled.

Schools

These changes for the IBCT cavalry squadron means there needs to be changes in training as well. I mentioned in Part I sending the EW section to the Low-Level Voice Intercept Course. Units should also send scouts to learn how to use the FIM-92 Stinger for SHORAD capabilities and increase the number of SDM Course graduates across the squadron. Also, the intel analyst at the troop level needs to attend a course teaching tactical-site exploitation. As the brigade's lead element, the squadron needs to have subject-matter experts spread throughout the maneuver units to help exploit any possible intelligence gained from captured/abandoned enemy locations or personnel.

A key piece of training that needs to be included and expanded is integration of CAS and indirect fires. As the brigade's forward edge, the chance of the squadron being the first element to gain contact with the enemy during decisive action is extremely high. Yet there is little in terms of CAS and indirect-fire training in the NCO and officer developmental pipelines. This lack of training has resulted in a lack of CAS integration and ineffective use when used. Based on 22 observed battles, the Joint Close Air Support Joint Test and Evaluation Task Force found that CAS seldom achieved the outcome sought by the ground commander, with less than one-third destroying or disrupting enemy forces.[45]

To help counter this, the IBCT squadron needs to increase the number of Soldiers it sends to the Joint Firepower Course (JFC) and the Joint Fires Observer Course (JFOC). In most squadrons, the only graduate of either of these courses is typically the fire-support officer.[46] To help change this, the JFC should be opened to Skill Level 3 and 4 19D Soldiers.[47] The eventual goal would be to have at least one senior NCO or officer in each troop who is a graduate of this course.

There should also be at least two to three JFOC graduates in the troop, with ideally one per platoon. As the platoon is the most likely element to encounter the front edge of an enemy assault, it is the element that requires the ability to effectively coordinate artillery, mortar and CAS to destroy or delay the enemy. Some people point to the attachment of forward observers (FOs) from the artillery as filling this role, but FOs are not an organic part of the squadron. As an attachment, when they leave the squadron, that skillset leaves with them. Either the squadron needs to send its Soldiers to these courses, or the fire-support team/combat-observation lasing team detachment needs to be organically part of the unit per MTOE, since that knowledge needs to stay within the organization.

Figure 8. Michael Goodman from II Corps Consulting Inc. provides training to a student in JFOC's Class 03-13, located at Expeditionary Warfare Training Group-Atlantic, Joint Expeditionary Base Little Creek-Fort Story, VA. The course trains select Joint personnel in engaging targets with AC-130, naval surface fires and indirect surface fires, and on procedures for providing timely and accurate targeting information to a qualified Joint Terminal Attack Controller for Type 2 and 3 CAS, terminal attack controls and conducting terminal guidance operations.
(U.S. Navy photo by Brandon E. Holmes)

A broader change across the cavalry as a whole is making the Scout Leader's Course (formerly called Army Reconnaissance Course) and Cavalry Leader's Course mandatory training. For the Scout Leader's Course, officers would attend after completing their Basic Officer Leader's Course branch training, and sergeants would attend after completing an abbreviated Advanced Leader's Course (ALC). This new ALC would be only two to three weeks long, with focus on the administrative side of being a squad/section leader.

For the Cavalry Leader's Course, officers would have to attend after they have completed the Maneuver Captain's Career Course but would be encouraged to take it earlier. NCOs would take it after completing their Senior Leader's Course. The reconnaissance and security, intelligence-gathering and dissemination, planning and asset-integration techniques taught at these schools are essential to the cavalry's skillset and need to be integrated into every level of the squadron.

Barriers

These changes are important but are not without issues. Even with full support, there will be barriers to effectively transitioning the IBCT cavalry squadron to this hybrid organization. While there are many issues, the main ones will be cost, logistics and manpower. Even after the change has been made, the new squadron will face the potential issue of improper use.

With the addition of all these new vehicles, equipment and training, the primary problem will be that of cost. TCAPS costs $2,000 per headset,[48] and it cost the Marine Corps $700,000 to equip an infantry battalion with

suppressors.[49] To add another TUAV platoon to each brigade would cost about $10 million each.[50] This does not even include Strykers, vehicles and training costs, to say the least. Yet some of these cost issues can be resolved using resources that will become available as force modernization progresses.

Figure 9. A U.S. Marine with Bravo Company, 1st Battalion, 2nd Marine Regiment, uses a suppressor while providing security on a company attack range, Twentynine Palms, CA. The U.S. Marine Corps has equipped one of its infantry battalions with suppressors at a cost of $700,000. *(U.S. Marine Corps photo)*

One avenue to cutting costs will be making the most out of the Marine Corps' reorganization. All the crew-served weapons and SDM rifles from the discontinued armor and infantry battalions could be used in the new squadron organization. Even individual gear, such as night-vision and rifles, could be used to help ease the costs associated with implementing the 3x9x36 platoon model.

Another possible way to cut costs would be through the fielding of the Mobile Protective Fires System. As these replace Mobile Gun System (MGS) vehicles in their normal units, they can be sent to newly reorganized IBCT squadrons. This would help reduce the cost of purchasing new vehicles.

The logistics required for this new hybrid organization will be much higher than with a standard IBCT squadron. By adding another family of vehicles, particularly a larger armored vehicle, the number of parts and supplies needed will grow. The increased maintenance requirement in regard to trained and equipped Stryker mechanics will also complicate the supply issue.

This is part of the reason why IBCT formations did not have heavy vehicles to begin with. Per Field Manual (FM) 3-96, "The IBCTs' lack of heavy combat vehicles reduces its logistics requirements ... not having heavy combat vehicles gives commanders greater flexibility when adapting various transportation modes to move or maneuver the IBCT."[51]

While these concerns are all valid, and the belief behind the doctrine is understandable, the fact is that the current IBCT squadron requires heavier vehicles that can enable it to effectively fight for information and time. Using the Stryker BCTs' expertise will help decrease the impact of these new logistic requirements.

The manpower required to field this new organization will also be an issue. With the addition of all the new elements to the squadron and troop, the Army will be forced to reassign or reorganize units to fill these needs. Adding onto the effect of increasing the IBCT squadron to the 3x9x36 structure, we'd see an increased demand for Soldiers for the formation. This comes at a time when the Armor Branch is the only operational-division branch to shrink since 2013.[52]

While the active-duty component could more easily fill these slots, the new formations will potentially strain National Guard units. Unlike the active-duty side, which recruits from across the entire country, the National Guard primarily recruits from just the state in which the unit is located. This problem would potentially require units in states to be disbanded and their Soldiers to change their military-occupation specialty to fill these new positions.

Increased bonuses and other enlistment incentives can help close this gap but would add to the overall cost of the transition.

Even after all these obstacles are crossed, there lies the very real possibility that the new squadron will run into an even bigger problem: improper use. With the massive increase in firepower, the brigade commander might view his cavalry squadron as a CAB and fight them as such. While MGS carries sabot and high-explosive anti-tank rounds, and is able to provide limited anti-armor capabilities, the vehicle is not a tank and should not be employed in the same manner as a tank.[53]

Also, if the brigade commander gets the squadron decisively engaged, at that point reconnaissance ceases and the potential for achieving and capitalizing on IC is lost.[54] It's the squadron commander's responsibility to teach and inform the brigade commander of this unit's capabilities and that its focus is to help win the reconnaissance fight, not lead an assault on the enemy's main body.

Conclusion

In March 2020 the Marine Corps announced it would drastically reorganize its entire force structure. Changes include the removal of all its tank battalions, bridging units, law-enforcement battalions and multiple infantry, artillery and amphibious vehicle units. Overall this move is expected to cut more than 12,000 Marines over 10 years and reduce costs by removing legacy systems, all to face the Corps' new projected threat.[55] This change was based on a realistic look at both the Corps' current capabilities and what it needed to change to meet its goal. This same process needs to be done with the IBCT cavalry squadron.

The current IBCT squadron is a paper tiger, unable to fight for information against near-peer threats. It is unable to win in the EW space, lacks the equipment to effectively counter UAS threats, does not have an effective C2 vehicle for squadrons and troops, and is overall deficient in firepower. The Army needs to decisively change the IBCT squadron's manning, training and equipping to be effective in the future fight for information.

While many of these proposed changes have been mentioned before, most have either not been implemented or are being phased in incrementally. These cannot be done piecemeal and expect to be enough. If we are the "combat arm of decision," we need to demonstrate that by deciding to overhaul the IBCT squadron to one that can accomplish its mission.

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Notes

[1] ATP 3-20.98, ***Reconnaissance Platoon***; April 2013.
[2] CPT Kyle A. Trottier; "The Cavalry Squadron 2025"; ***ARMOR***, January-March 2015.
[3] "RQ-7B Shadow Tactical Unmanned Aircraft System (TUAS)"; Army Sustainment Command; Nov. 4, 2014; https://asc.army.mil/web/portfolio-item/aviation_shadow-tuas/.
[4] MAJ Scott Mason; "Unmanned Aerial Vehicle Use in Army Brigade Combat Teams: Increasing Effectiveness across the Spectrum of Conflict"; master's thesis, Naval Postgraduate School; 2006.
[5] "RQ-7B Shadow Tactical Unmanned Aircraft System (TUAS)"; Army Sustainment Command.
[6] FM 3-20.98.
[7] SGT Christopher Broman; "Implementing Quadcopter Unmanned Aerial Systems into Reconnaissance Platoons"; ***ARMOR***, Fall 2019.
[8] Mark Pomerieau; "How $650 drones are creating problems in Iraq and Syria"; ***C4ISRNET***; Jan. 5, 2018; https://www.c4isrnet.com/unmanned/uas/2018/01/05/how-650-drones-are-creating-problems-in-iraq-and-syria/.
[9] Broman.
[10] 1LT Matthew Blubaugh; "1-4 [Infantry] Regiment is spearheading the future during Combined Resolve"; Defense Visual Information Distribution Service; May 10, 2018; https://www.dvidshub.net/news/276453/1-4-regiment-spearheading-future-during-combined-resolve.
[11] Broman.
[12] Blubaugh.

[13] CPT Kevin Zhang, Kevin and CPT Michael Grdina; "Protection across the Domains: Electronic Warfare in the Armored-Cavalry Squadron"; ***ARMOR***, Winter 2019.
[14] CSM Vincent Simonetti and SGM Aaron Forry; "HQ on the Move: Battalion Develops a More Nimble Command Post"; Association of the United States Army; June 18, 2018; https://www.ausa.org/articles/hq-move-battalion-develops-more-nimble-command-post.
[15] ATP 3-01.81; ***Counter-Unmanned Aircraft System Techniques***; April 2017.
[16] Yaron Steinbuch; "Russia reportedly jamming U.S. Drones in Syria"; ***New York Post***, April 10, 2018; https://nypost.com/2018/04/10/russia-reportedly-jamming-us-drones-in-syria/.
[17] Kyle Rempfer; "This gun shoots drones out of the sky"; ***Defense News***; April 10, 2018; https://www.defensenews.com/digital-show-dailies/navy-league/2018/04/10/this-gun-shoots-drones-out-of-the-sky/.
[18] Troy Carter; "U.S. Army invents 40mm grenade that nets bad drones"; ***TechLink Center***; Feb. 5, 2019; https://techlinkcenter.org/news/us-army-invents-40mm-grenade-that-nets-bad-drones/.
[19] Asymmetric Warfare Group; ***Russian New Generation Warfare Handbook***, Version 1; December 2016.
[20] SSG David Overson; "Army intensifying Stinger air missile training as part of new strategic initiatives"; Army News Service; Jan. 12, 2018; https://www.army.mil/article/198986/army_intensifying_stinger_air_missile_training_as_part_of_new_strategic_initiatives.
[21] Asymmetric Warfare Group.
[22] MG Robert White, COL Charles Lombardo and MAJ Ken Selby; "A Smaller Footprint: Multi-domain Battle Means Command Posts Must Evolve"; Association of the United States Army; May 15, 2017; https://www.ausa.org/articles/multidomain-battle-command-posts-must-evolve.
[23] Ibid.
[24] Ibid.
[25] Claire Heininger; "Army designing next-gen command posts"; U.S. Army News Service; May 12, 2016; https://www.army.mil/article/167807/Army_designing_next_gen_command_posts/.
[26] Simonetti and Forry.
[27] LTC Brian Flood, MAJ James Hayes and MAJ Forrest Cook; "IBCT's Reconnaissance Squadron in Full-Spectrum Operations"; ***ARMOR***, March-April 2011.
[28] Broman.
[29] Ibid.
[30] ATP 3-21.21, ***SBCT Infantry Battalion***; March 2016.
[31] Center for Army Lessons-Learned; ***Company Intelligence-Support Team (CoIST) Handbook***; Jan 2010.
[32] Flood, Hayes and Cook.
[33] Matthew Cox; "The Army's Body Armor May Be Too Heavy for Soldiers in Combat"; ***Task and Purpose***; Sept. 26, 2018; https://www.military.com/daily-news/2018/09/25/army-body-armor-may-be-too-heavy-combat-report-finds.html.
[34] Ibid.
[35] Ibid.
[36] Ibid.
[37] Austin Leach; "Load Distribution System"; ***TechLink;*** https://techlinkcenter.org/technologies/load-distribution-system-redistributes-heavy-loads-without-hindering-mobility/feb6de0b-96cc-4597-8bbd-2f8c8e31155c.
[38] Joe Palca; "Army's Smart Earplug Damps Explosive Noise"; National Public Radio; June 3, 2016; https://www.npr.org/sections/health-shots/2016/06/03/480173016/armys-smart-earplug-damps-explosive-noise-but-can-enhance-whispers.
[39] Kelly Hodgkins; "The U.S. Army's new earbuds gives soldiers tunable hearing"; ***Digital Trends***; June 8, 2016; https://www.digitaltrends.com/cool-tech/army-noise-canceling-headset/.
[40] Ibid.
[41] Ibid.
[42] Jared Keller; "This Marine Unit is to Deploy with Suppressors"; ***Task and Purpose***; May 11, 2017; https://taskandpurpose.com/gear-tech/suppressors-marine-unit-weapons.
[43] John Keller; "Army reaching out to industry for handheld and wrist-worn GPS receivers for use in the Middle East"; ***Military & Aerospace Electronics***; May 13, 2015; https://www.militaryaerospace.com/rf-analog/article/16714371/army-reaching-out-to-industry-for-handheld-and-wristworn-gps-receivers-for-use-in-the-middle-east.
[44] Rose Thayer; "New Army rifle offers more versatility in combat"; ***Stars and Stripes***; Feb. 17, 2019; https://www.stripes.com/news/new-army-rifle-offers-more-versatility-in-combat-1.569090.
[45] General Accounting Office; ***Lingering Training and Equipment Issues Hamper Air Support of Ground Forces***; Washington, DC: U.S. General Accounting Office; 2003.
[46] SFC Morgan Wallace; "Improper Close-Air-Support Integration During Planning at Battalion Level'; ***ARMOR***, Winter 2020.
[47] Ibid.
[48] Hodgkins.

[49] Jared Keller.
[50] Mason.
[51] FM 3-96, ***Brigade Combat Team***; October 2015.
[52] CPT Kyle D. Woods and CPT William C. Forrest; "Generating Incentive and Motivation in the Cavalry and Armor Community"; ***ARMOR***, Winter 2020.
[53] ATP 3-21.91, ***Stryker Brigade Combat Team Weapons Troop***; May 2017.
[54] ATP 3-20.96.
[55] Shaun Snow; "The Corps is axing all of its tank battalions and cutting grunt units"; ***Marine Corps Times***; March 23, 2020; https://www.marinecorpstimes.com/news/your-marine-corps/2020/03/23/the-corps-is-axing-all-of-its-tank-battalions-and-cutting-grunt-units/.

Acronym Quick-Scan

ALC – Advanced Leader's Course
ATP – Army techniques publication
BCT – brigade combat team
C2 – command and control
CAB – combined-arms battalion
CAS – close air support
CoIST – company intelligence-support team
CP – command post
DAGR – Defense Advanced G[lobal Positioning System] Receiver
DRASH – Deployable Rapid-Assembly Shelter
EW – electronic warfare
FM – field manual
FO – forward observer
GPS – Global Positioning System
HHT – headquarters and headquarters troop
HUMINT – human intelligence
IBCT – infantry brigade combat team
IC – information collection
IOTV – Improved Outer Tactical Vest
ISR – intelligence, surveillance and reconnaissance
JBC-P – Joint Battle Command Platform
JFC – Joint Firepower Course
JFOC – Joint Fires Observer Course
MGS – Mobile Gun System
MSV – Modular Scalable Vest
MTOE – modified table of organization and equipment
NAI – named area of interest
NCO – noncommissioned officer
OSVRT – One-System Video Remote Terminal
QEAM – Quick-Erecting Antenna Mast
SDM – squad designated marksman
SHORAD – short-range air defense
TCAPS – Tactical Communication and Protective System
TOC – tactical-operations center
TUAV – Tactical Unmanned Air Vehicle
UAS – unmanned aerial system
VTOL – vertical take-off and landing