The New Normal: Information Collection Planning in Large-Scale Combat Operations

by Major Christopher D. Thornton

Introduction

Information collection planning, like course of action development, is a visualization exercise. This is stating the obvious for anyone who has had to build a synchronization matrix. It is the collection manager's job to build a plan that employs units and sensors in time and space. The collection manager bases the plan on an expected sequence of actions and decisions by friendly and enemy forces, starting with an event template and refining the plan during the wargame.

One of the first visualization challenges that collection managers face, however, may involve expectation management, in particular, for those leaders who have cut their teeth in a theater with a high density of collection assets. At the theater level, friendly forces often have the benefit of a persistent stare for significant portions of the area of operations, and the threat may not have artillery or surface-to-air missiles to pose a deterrent.

Expect a Shift in Coverage Capabilities

The warfighter has been spoiled for years by the U.S. Central Command's area of responsibility, which has a robust mix of government- and contract-operated intelligence, surveillance, and reconnaissance (ISR) capabilities. This includes a fleet of dozens of manned and unmanned aircraft, ground sensors, and theater information collection assets operating from sanctuary to provide layered capabilities and multiple lines of 24-hour full-motion video coverage. This is understandable, given a mature theater where there is no credible challenge to the aerial and space domains, nor is there a peer to threaten networks and the electromagnetic spectrum.

Training audiences at warfighter exercises typically enjoy 24-hour coverage from fixed-wing aerial assets such as the Joint Surveillance Target Attack Radar System, Rivet Joint, and the Enhanced Medium Altitude Reconnaissance and Surveillance System. However, it is unlikely that Army force providers and Air Force providers will have the capability to deliver this amount of coverage to the warfighter during large-scale combat operations against a peer. National capabilities can help fill some of these gaps to a degree, but make no mistake, both space and cyberspace can and will be contested domains in a large-scale conflict.

Photo courtesy of NATO

Soldiers from the U.S. Army's 1st Cavalry Division maneuver across a linear danger area during a live-fire exercise at Pabradė Training Grounds in Lithuania, February 12, 2020.

Answering priority intelligence requirements in large-scale ground combat operations will be even more challenging, particularly in the early phases when the air, space, and cyberspace domains are at their most contested. Component commanders will be forced to prioritize because of the timelines to deploy capabilities to the theater of operations and a lack of a sufficient number of platforms to provide 24-hour coverage with theater-level wide area surveillance. The inevitable loss of sensors, both ground and aerial, will exacerbate the issue. As such, in large-scale ground combat operations, a brigade combat team or division is not likely to benefit from unmanned aircraft system (UAS), fixed-wing ISR, or fighter aircraft. Whenever these capabilities do show, they are more of an opportunity to be seized than an expectation.

Mississippi National Guard photo illustration by SSG Tim Morgan, 102nd Public Affairs Detachment

Army aviation systems, like these AH-64 Apache helicopters from the North Carolina Army National Guard's 1st Battalion, 130th Aviation Regiment, positioned in the Mojave Desert at the National Training Center, Fort Irwin, CA, will need to operate in an antiaccess and area denial contested airspace against adversaries that have advanced capabilities that constrain freedom of maneuver.

Information Collection during Transitions

The rapid movement and large distances that a ground force must cover (for the European problem set, at least) mean that information collection products, which were sometimes ignored in counterinsurgency, like the event template with its time-distance analysis and the synchronization matrix, are of critical importance. Formations must plan deliberately through transitions, such as jumping a main command post or collapsing a rear boundary.

These transitions involve significant impacts for information collection, with implications far beyond the information collection synchronization matrix. During headquarters transitions, perhaps the most important of these is the positioning of the Tactical Intelligence Ground Stations, which provide a headquarters with more than just full-motion video. How will the tactical command post get imagery and intelligence feeds while the main command jumps? Should a brigade combat team have a specified task to push information of particular import that they receive on the Tactical Intelligence Ground Station to the tactical command post via chat, or voice? Another example of an important transition is the displacement of combat aviation brigades, because of the impact to attack aviation and Gray Eagle collection. Should equipment move in multiple serials so that the unit maintains a degraded capability (probably)? If the combat aviation brigade will jump in phases, what equipment will be required to maintain that degraded capability? The answer depends upon the number of lines required through the jump and the need to operate these systems in a beyond line-of-sight configuration. The answer also depends upon the line of sight from the expected Universal Ground Data Terminal location, the location of the coordinated fire line and fire support coordination line, and the threat to convoys in the area. A division probably cannot afford to lose a low-density pacing item like a satellite ground data terminal.

For years, brigade combat teams at combat training centers have lived through the pains of planning through transitions like these. The ability to conduct transitions deliberately and understanding the trade-offs can be the difference between a successful and an unsuccessful rotation. Divisions and corps must also plan through such transitions, and rehearse the subtasks in their train-up as well, because they entail key capabilities and a command post is more than just a tent.

Keep `Em Flying

Due to threats from air defense, effective Shadow and Gray Eagle unmanned aerial vehicle (UAV) employment in large-scale combat operations requires deliberate planning and risk mitigation beyond the normal considerations of weather, maintenance, and airspace deconfliction if you want the asset to be around after the first few days. Routes to and from search areas should be varied to increase platform survivability as the enemy repositions air defense artillery systems in response to friendly information collection.

A best practice to consider is employing UAVs at maximum altitudes, even at the expense of full-motion video feed quality. Generally, air vehicles should be flown at as high an altitude as is practicable to decrease the probability of detection. Even the Shadow should be able to stay above man-portable air defense system's maximum altitude unless it flies directly over a team of SA-18 or SA-24 operators. The Gray Eagle is able to stay above the SA-15's maximum engagement altitude under most weather conditions (do not try it in Afghanistan in the winter). Even if you are operating the platform at the maximum altitude, you will still see the tank battalion. Promise.

Aside from survivability considerations, UAVs should fly offset from the named area of interest—farther is generally better, but even a few kilometers is better than nothing—whenever possible to make it less obvious where the asset is looking, to facilitate airspace management, and to increase the system's survivability. This is particularly true at the division and higher levels, where platforms such as Gray Eagle and Reaper typically have more than one sensor. While it won't help your warfighter exercise, it is invaluable to be able to cover two named areas of interest (one with a ground moving target indicator radar and one with the full-motion video common sensor payload) when you do not have a large number of combined force air component commander assets in support.

The incorporation of UAVs into attack aviation employment and in air assault operations in a screening capacity ahead of the aviation, whether through manned-unmanned teaming or otherwise, enables early identification of threats. If a surface-to-air system engages, the UAV successfully identifies the threat without the loss of an Apache and allows for rapid decision making as to whether to proceed. Key enablers such as UAS should be considered carefully in the "min force" criteria for an operation.

Finally, security of key links in the system chain, such as Gray Eagle data terminals and Ground Control Stations, is a must. These systems are low density, distinguishable, and vulnerable.

Task Organizing for Large-Scale Ground Combat Operations: The Division Cavalry Rides Again

After the shift to the modular brigade combat team model, divisions lost their battlefield surveillance brigades and division cavalry squadrons in favor of organic brigade-level cavalry to conduct reconnaissance and guard/screening tasks. The key limitation to this modularity in division and higher operations is that a maneuver commander must commit a maneuver formation to conduct reconnaissance and security tasks.[1]

Commanders have found the limits of even unrealistically persistent aerial and national sensors that facilitate gaining and maintaining contact with an enemy force in an exercise environment; therefore, through the manipulation of task organization and command and support relationships, they have resurrected the division cavalry or corps reconnaissance and surveillance "from hide." The foundation for this cavalry task force has varied. For a division, it has been a cavalry squadron detached from a brigade combat team with attack aviation in direct support, air defense artillery, and indirect fires.[2] Other enablers, such as engineers, cyber-electromagnetic activities, and unmanned aerial surveillance, are added when they are required by the terrain and mission.[3]

Over the course of its command post exercise series in preparation for warfighter exercise 20-04, Joint Warfighting Assessment 20, and Defender 2020, the 1st Cavalry Division experimented with a few variations on the composition and capabilities appropriate to a division cavalry squadron. A few key principles were consistent:

1) Division cavalry or the corps reconnaissance and surveillance are a "delivery system" for enablers such as fires. By pushing back against the enemy's disruption zone, a division cavalry can "pull" fires and sensors forward, but maneuver forces have to catch up, and quickly. These sensors can and should include air defense and counterfire radars because this will increase the survivability of the division cavalry and enable more effective lethal targeting, which is the whole point.

2) The division cavalry must retain freedom of maneuver by avoiding decisive engagement. This involves correlating forces and means, giving an appropriate mission to the formation, and having a reasonably accurate event template. A different formation or echelon (light or heavy, squadron, or brigade) may be required depending upon the frontage, distance, and task. Is the division cavalry an advanced guard? Screening? Both?

3) There is no "one-size fits all" division cavalry or corps reconnaissance and surveillance task organization; it is mission-dependent and will probably change by phase. What is the air defense threat in the enemy disruption zone? What is the desired form of contact—indirect fire, aircraft, visual, or something else?[4] The exact capabilities must be tailored to the terrain, the threat, and the mission for the formation to fight successfully for information and enable maneuver and fires in subsequent phases.

4) Deliberate primary, alternate, contingency, and emergency communications planning is a must to enable the formation to develop the situation rapidly and feed its

U.S. Army photo by SGT Dommnique Washington, 7th Mobile Public Affairs Detachment

The scout platoon of Headquarters and Headquarters Company, 1st Battalion, 5th Cavalry Regiment, 2nd Armored Brigade Combat Team, 1st Cavalry Division, conduct a scout validation exercise January 21-22, 2020, at the Novo Selo Training Area in Bulgaria. They are evaluated on their ability to navigate terrain while accurately gathering, assessing, and reporting information, along with providing security and engaging targets when necessary.

information to the supported headquarters. While the simulation environment cannot replicate this realistically, a division cavalry or corps reconnaissance and surveillance will not be successful without its ability to communicate.

A couple of key considerations 1st Cavalry Division had for warfighter exercise 20-04 were how much unmanned aerial surveillance to provide (two or four RQ-4B Shadow UAS), and whether to support zone and area reconnaissance with Gray Eagle UAS as the division pushed into the enemy's disruption zone. A key addition after command post exercise 3 was the program of record-B Prophet or the Saber Fury electronic warfare/signals intelligence (SIGINT) systems.

Based on the expected dispersal of enemy air defense artillery to protect the integrated fires command assets, the G-2 staff recommended maintaining the ability to identify and destroy enemy radars by ground-based SIGINT collection. This enabled a limited capability to engage these systems immediately, even in the event aerial SIGINT/electronic intelligence became unavailable because of theater- and national-level air defense or enemy fixed-wing air threats to joint ISR.

A tailored reconnaissance and surveillance formation of some kind is particularly important in offensive operations at the division and above. Proper task organization and utilization of this formation will probably feature in large-scale ground combat operations at brigade and above echelons. However, do not assume that each echelon requires a reconnaissance and surveillance formation. Frontage, terrain, synchronization of operations at echelon, and the nature of the mission will dictate where (and how) a formation will fight for information.

Conclusion

Ultimately, the return of the division cavalry squadron is an example of what has not changed with the "new normal" of large-scale ground combat operations, and this includes the fundamentals. The fundamentals of reconnaissance and of security—as well as the importance of information collection synchronization, fires and effects, and maneuver—remain as applicable as they were to 1st Squadron, 4th Cavalry Regiment, when it served as the division cavalry for 1st Infantry Division during the Gulf War.[5] To seniors in the Army, the return to the "new normal" is less like an adaptation to something radically different and more like putting on an old pair of boots—it is a return to the "old normal."

Endnotes

1. Nathan A Jennings, *Reconsidering Division Cavalry Squadrons* (Fort Leavenworth, KS: School for Advanced Military Studies, U.S. Army Command and General Staff, 2017), 1-2.

2. Ibid., 35-36. This is what the author describes as a "low augmentation" task force.

3. Ibid., 37-39. The author provides additional options and recommended frontages, ending with an augmented armor brigade combat team screening a frontage of 120 to 150 kilometers.

4. Department of the Army, Army Doctrine Publication 3-90, *Offense and Defense* (Washington, DC: U.S. Government Publishing Office, 31 July 2019). However, it is probably not visual contact that is desired. This will tell out in the task organization, with a Q-53 counterfire radar-equipped artillery battalion in direct support, an unmanned aerial vehicle platoon attached, or similar.

5. Jennings, *Reconsidering Division Cavalry Squadrons*, 24.

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