21st Century Reconnaissance

Battlefield key component of maneuver warfare
by The Ellis Group

The ubiquity and availability of surveillance assets on the modern battlefield is unprecedented in the history of warfare. The "unblinking eye" of satellites orbiting the globe and observing every inch of its surface is available to anyone, not just military forces. Aerial surveillance systems are available off-the-shelf in department stores. The battlefields of the 21st century will occur on a global stage with an audience of billions. Despite this quantum leap in the capability and presence of surveillance, the need for military forces to conduct reconnaissance and prevent enemy forces from doing so will not diminish. In fact, the ability of such forces to interrupt or deceive enemy surveillance measures will become even more important.

Simultaneously, advancements in electronic warfare and cyber warfare mean units on the battlefield can be detected in a variety of ways, not just visually. As precision-guided munitions proliferate, units that can be detected will be fired upon. The "battle of the signatures" cannot be won simply by mitigating our own emissions—reconnaissance forces must be detectors and the MAGTF must actively and passively counter both enemy reconnaissance and the impact of social media. The ability to detect, analyze, and understand complex terrain, especially in urban megacities and among local populations, will not end with U.S. involvement in Iraq and Afghanistan. Such information will be vital for Marine commanders in every future fight. Reconnaissance forces are ideally suited to lead the fight for information.

The use of reconnaissance to find and enable the exploitation of enemy surfaces and gaps and counterreconnaissance to prevent enemy forces from doing the same will not change, but the means and capabilities required to be effective will. Indeed, that change has already occurred. Maneuver warfare in the 21st century demands a modern concept of reconnaissance and counterreconnaissance operating alongside units tailored to fight and win the battle for information.

Horses and Tanks

For centuries before and after the gunpowder revolution, horse cavalry performed two general tasks: 1) reconnaissance and counterreconnaissance, and 2) direct shock via a charge to break the enemy line and the exploitation thereof. Traditionally, the cavalry arm was simultaneously the eyes of a general and a striking force. It was not coincidence that the Romans carefully selected their general's second-in-command, his Master of Horse. Reconnaissance and counterreconnaissance was of the utmost importance. As gunpowder firearms improved in lethality, however, the ability of cavalry to perform these missions began to decrease. During the Crimean War, the famous "Charge of the Light Brigade" heralded the end of horse cavalry's effectiveness as a shock force. By World War I, cavalry could not reliably perform reconnaissance nor conduct charges. During August 1914, both German and French cavalry reconnaissance units proved unable to operate in their traditional roles. As the war dragged on, the tank was developed and eventually filled the shock role while aircraft began to fill the reconnaissance role.

In some ways, reconnaissance and counterreconnaissance capabilities

Do we choose unity of command over information collection? (Photo by LCpl Brianna Gaudi.)

vastly improved as aircraft began to fill the role. More ground could be covered faster than ever before—and in a much safer manner—as aircraft could avoid ground units by simply flying higher. Military forces, however, lost some of the detail that cavalrymen were able to acquire on horseback. The defeat of enemy reconnaissance units, now that they were aircraft, became the business of air forces. Motorized and mechanized reconnaissance units proliferated before and during World War II, but they have largely remained unchanged while aerial surveillance has changed dramatically.

Drones and Satellites

Aircraft, unmanned aerial vehicles, and satellites are now the dominant means for reconnaissance. As advanced as the technology is, however, ground commanders are still bereft of the feel for the ground provided by a cavalry commander that knows his business. Aerial surveillance is an excellent, but insufficient, capability.

Unmanned systems are proliferating at a rapid rate; in any future conflict, they will be in use by our adversaries as well as ourselves. Even non-state actors now possess sophisticated unmanned aircraft systems' capabilities. In October 2016, Islamic State militants used an armed drone to kill two Kurdish fighters and injure two French Special Operations troops in Iraq.[1] Unmanned systems will increasingly be employed like a line of skirmisher's—simultaneously observing and preventing the enemy from observing. Part of reconnaissance and counterreconnaissance then will be to punch holes in that line. Marine Corps reconnaissance units will not just need the ability to operate against an enemy on the ground but across all domains.

Potential adversaries are well aware of American over reliance on aerial surveillance. The Iranian Revolutionary Guard Corps (IRGC), for example, has copied the success of Hezbollah when it comes to the camouflage and masking of positions. During the 2006 Israeli offensive into Southern Lebanon, the Israeli Defense Force was confronted with a defense-in-depth of squad-sized anti-tank and rocket teams that aerial surveillance could not locate. Hezbollah teams use both caves and buildings while employing low signature weapons systems in order to avoid detection.[2] To further minimize their signature, teams did not communicate with each other; each team leader was charged with fighting the fight as he saw fit within his assigned area. The IRGC plans to replicate Hezbollah's success on the Iranian shore of the Persian Gulf. This so called "mosaic" defense cannot be accurately mapped and analyzed through aerial surveillance alone. To be overcome, it will need to be probed by the MAGTF and forced to react.

Fighting for Information

In late 1950, Chinese forces streamed across the border between China and North Korea straight toward American lines on the peninsula. Despite daily surveillance flights, American aircraft never spotted the incursion. In late October and early November, Chinese forces attacked Republic of Korea and U.S. Army forces in the west and the 1st MarDiv in the east.[3] Then, the attacks stopped. In late November, they attacked again, this time flowing around American strong points and then attacking from the rear. The initial attacks had located surfaces and gaps in the American positions.

The Chinese forces, by attacking the American forces for a short time, were fighting for information. The Chinese military was new and had never faced Americans before. After the initial phase of fighting, Chinese leaders wrote a pamphlet about how the Americans had reacted and distributed it to their forces.[4] Then they attacked again, this time with a plan designed for their strengths and American weakness. By fighting for information and then planning based on that information, Chinese forces pushed the U.S. Eighth Army all the way back to the 38th parallel and forced the U.S. X Corps to trek through the Chosin Reservoir to be evacuated by the Navy.

The First and Second Phase Offensives—as the above attacks were named—are an excellent example of how intelligence can, and should, drive operations. But passive intelligence collection does not provide enough decisive information to drive operations and depends wholly on the enemy to make mistakes in protecting their information. The Marine Corps requires both a concept and a force tasked with the proactive reconnaissance and counter-reconnaissance fight.

In 2014, just such a concept was proposed in the *Marine Corps Gazette*. In an article titled "Operate to Know," LtCol Drew Cukor, Col Matthew L. Jones, Capt Kevin Kratzer, and 2ndLt Sy Poggmeyer proposed a four-point concept designed to ascertain and utilize intelligence to drive operations. The article states,

> We effectively ask our most important expeditionary combat forces to operate nearly blind, relying primarily on limited theater and national surveillance capabilities to develop a meaningful picture of the battlespace.[5]

Such tools are important but can never in and of themselves unveil the entire picture of an operating environment. The four aspects of the concept intended to alleviate this problem are: 1) intelligence and operations integration, 2) pervasive and persistent surveillance and reconnaissance, 3) a continuous operations and intelligence picture, and 4) integration with the global knowledge environment (GKE).[6]

The key is a multifaceted approach that analyzes both the enemy and the environment through a variety of means: aerial and satellite surveillance, reconnaissance, interaction with the human terrain, the electromagnetic spectrum, signals and human intelligence, and the GKE. Once the information from those means is analyzed, it then needs to influence the decision making of commanders. Currently, the MAGTF has no one unit that can leverage all of those different means and then disseminate the knowledge resulting from the analysis thereof.

The MAGTF does, however, have a variety of means available to conduct reconnaissance and counterreconnaissance. *MCDP 1-0, Marine Corps Operations,* defines reconnaissance as,

> A mission undertaken to obtain, by visual observation or other detection

Force reconnaissance units from platoon to battalion will need to strengthen interoperability relationships—both joint and combined. (Photo by Nelson Duenas.)

methods, information about the activities and resources of the enemy or adversary, or to secure data concerning the meteorological, hydrographic, or geographic characteristics of a particular area ...[7]

and counterreconnaissance as, "All measures taken to prevent hostile observation of a force, area, or place."[8] It also describes the various means available to the MAGTF to conduct both missions, such as radio battalion, reconnaissance battalion, and light armored reconnaissance battalion. While the MAGTF has a wide variety of such means, they do not fall under one command authority; the fight for information violates the principle of unity of command. A MAGTF WARRIOR exercise found that, during the execution, there were seven entities with responsibilities in the security area of the MAGTF, all of which had a different chain of command and none of which had any authority over the others.

The problem identified at MAGTF WARRIOR is twofold. First, the employment of reconnaissance/counterreconnaissance assets in such a manner is a detriment to the security of the MAGTF as information and action is fuzzed at the MAGTF headquarters, which in turn hampers initiative and the bold action required by maneuver warfare.

Second, any information garnered by such units is filtered through various staff processes impeding unity of effort and rapid dissemination throughout the MAGTF—if that information proliferates at all.

While fighting for information is vital, so is preventing the ability of the enemy force to probe and test friendly positions as the Chinese did in 1950. The purpose of screening and guarding missions is to prevent just such a situation; however, screen and guard must be applied in all domains. Marine Corps reconnaissance assets must therefore be invested with full-spectrum intelligence capabilities while retaining their current ability to fight and win if need be while simultaneously falling under a single commander tasked with the mission.

21st Century Reconnaissance and Counterreconnaissance

To conduct reconnaissance and counterreconnaissance in the 21st century, the detailed information formerly available to the cavalry or infantry unit must be combined with the full spectrum of modern sensing, acquisition, and intelligence collection capabilities while retaining sufficient combat power. This requirement is not limited to major combat operations. In "small

wars" or counterinsurgency fights, there is a need for effective reconnaissance to map the human and urban terrain and assess insurgent actions. While reconnaissance assets must surely be prepared to fight, their proper role is much less "shoot, move, and communicate" and more "sense, make sense, and communicate." Such assets are not currently employed and equipped to accomplish the latter.

MCDP 1-0 describes reconnaissance operations as those that, "Use visual observation or other detection methods to obtain information about the activities and resources of an enemy or adversary," and counterreconnaissance as, "All active and passive measures taken to prevent hostile observation of a force or area."[9] For the 21st century, reconnaissance will have to rely much more on other detection methods—such as electronic and signature detection—rather than visual observation. Counterreconnaissance will have to employ more active measures to "ping" and "probe" the enemy in order to either deceive them as to the whereabouts and plans of friendly forces or unmask their force employments.

Fighting for and generating intelligence, preventing the enemy from doing the same, and leading the MAGTF's military deception efforts is a task as daunting as it is necessary and thus will require a maneuver commander assigned mission and employing a task-organized force combining reconnaissance, information and electronic warfare assets, and all source intelligence capabilities into one command. This will better enable the MAGTF to identify enemy critical vulnerabilities, protect its own, and exploit that knowledge through decisive action.

The role of reconnaissance forces in the future will resemble the "Long Patrol" of the 2d Raider Battalion on Guadalcanal in 1942. The battalion, led by LtCol Evans Carlson, initially landed at Aola Bay, east of the main American position protecting Henderson Field. Then-MajGen Archer Vandegrift tasked Carlson to

> scout west toward the perimeter to determine the strength of enemy forces between Aola Bay and Henderson

Field, as well as to interdict any of the fifteen hundred Japanese troops ... [10]

During its month-long operation through Japanese-held territory, the battalion fought dozens of skirmishes and small fire fights with enemy troops as well as a major battle at Asamana village.[11] After eliminating Japanese artillery positions and locating the main Japanese movement corridor, the Raiders then eliminated Japanese positions overlooking Henderson Field by attacking their hill top positions from the rear. All told, the Raiders inflicted 488 casualties on the enemy while suffering only 16 killed and 18 wounded themselves, although malnutrition and disease plagued the unit as well.[12]

Carlson's patrol simultaneously conducted reconnaissance, disrupted enemy movements and attacks, and prevented the enemy from conducting its own reconnaissance. The Raiders' specialized training allowed them to move quickly and evade enemy counterattacks, but when a fight could not be avoided, they were able to prevail. Modern reconnaissance forces need to be able to do the same but will need assets to do so which were not available to Evans Carlson.

Conclusion

Modern reconnaissance forces are the heirs to the horse cavalry's mastery of fighting for information on land. Increasingly though, both reconnaissance and counterreconnaissance efforts will need the ability to detect and fight for information in the air, sea, space, and cyberspace realms. Capabilities such as unmanned aircraft systems, the ability to counter them, electromagnetic sensing and detection, and the full spectrum of intelligence gathering will need to be brought together on a routine basis. All of the capabilities needed to conduct 21st century reconnaissance and counterreconnaissance are currently housed throughout the MAGTF: task forces tailored and devoted to the fight for information will be necessary.

The changing nature of the fight for information leads to a few questions that should drive Marine Corps efforts to modernize its reconnaissance/counterreconnaissance concepts:

UASs are only one part of our reconnaissance capability. (Photo by Cpl Ricky Gomez.)

• How can we best equip the MAGTF to conduct reconnaissance and counterreconnaissance in all domains?
• How can we organize, train, and equip the MAGTF to achieve surprise on the 21st century battlefield?
• How can we organize, train, and equip the MAGTF to deceive our adversaries?
• How can we best protect our intent and determine the intent of our adversaries?
• How can we conduct the reconnaissance/counterreconnaissance to control and manipulate tempo?

As reconnaissance is a vital part of maneuver warfare, these questions should guide Marine Corps concepts and force structure in order to conduct maneuver warfare in the 21st century.

Notes

1. Thomas Gibbons-Neff, "ISIS used an armed drone to kill two Kurdish fighters and wound French troops, report says," *The Washington Post*, (Washington, DC: 11 October 2016), accessed at https://www.washingtonpost.com.

2. Marc Lindemann, "Laboratory of Asymmetry," *Military Review*, (May–June 2010), 109.

3. T.R. Fehrenbach, *This Kind of War*, (Washington, DC: Potomac Books, 2001), Kindle edition, Location 3729.

4. Ibid., Location 3863.

5. Drew Cukor, Matthew L. Jones, Kevin Kratzer, and Sy Poggemeyer, "Operate to Know: A Proposed Operating Concept for Intelligence and Operations to Enhance Combat Effectiveness," *Marine Corps Gazette*, (Quantico, VA: April 2014), 58.

6. Ibid., 59.

7. Headquarters Marine Corps, *MCDP 1-0, Marine Corps Operations*, (Washington, DC: August 2011), Glossary 28.

8. Ibid., Glossary 10.

9. Ibid., 6-4.

10. John Wukovits, *American Commando: Evans Carlson, His WWII Marine Raiders, and America's First Special Forces Mission*, (New York: Penguin, 2009), 182.

11. Ibid., 193.

12. Richard B. Frank, *Guadalcanal: The Definitive Account of the Landmark Battle*, (New York: Penguin, 1992), 424.

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