Future Reconnaissance

Reducing human sensors

by LtCol Sean Barnes & Maj William Willis

After weeks of tinkering with task organization slides and GCE tribal blue on blue during the Marine Corps 2025 (MC2025) crucible, Marine ground reconnaissance (Recon Battalioin, Force Recon, and LAR) failed to evolve. In fact, 3d Reconnaissance Battalion lost its Charlie Company structure to pay other bills. This brought a tinge of cognitive dissonance when one of our CMC mandates of MC 2025 was to create a force able to "sense, make sense, and act" in the future operating environment. Our thinking was predicated on "to be detected is to be killed." Ground reconnaissance are the GCE assets designed to "detect" the enemy. The message was clear, the Marine Corps needs less human sensors to "sense" and "make sense" on the battlefield.

It is well understood that the future battlefield is dangerous; in that case, we can use manned and unmanned teaming (MUMT) to enhance the capabilities of ground reconnaissance: small aerial drones to expand observation or provide loitering lethal munitions, small disposable unattended ground sensors, electronic warfare nodes to attack, spoof, jam, or deceive in the "battle of signatures." This sounds like the natural evolution of the reconnaissance core mission essential task of bat-

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> "History doesn't repeat itself but it often rhymes."
> —Mark Twain

tlespace shaping. Ground reconnaissance looked inward and redesigned the unit of action, unit of employment, the team and platoon, to deal with the increased "cognitive load" of new tasks, equipment, and added complexity. But when we do not yet have the widgets, and we cannot vividly demonstrate to parochial eyes what this new design can do, these visions fall flat. In the MAGTF WARRIOR-16 Wargame series, one less triangle on the map equals less capability. It was too difficult for some to envision how the new design might be better, except those who did not buy it had a vote that counted. For now, ground reconnaissance is still six Marines with big rucks and an LAV. It is

> "ISR is a very dangerous thing sometimes, said another operator. 'It really allows you to confirm your biases. I think it was seventeen woman [sic] and children [that] were killed on that target." [2]
> —Relentless Strike

2018 and amphibious reconnaissance is still a platoon of Marines bobbing in the water along a line of 550 cord (to be fair, the Navy has an unmanned underwater vehicle that recon Marines have tested with great success, but that is recent and only gained traction as a result of the CMC innovation contest). The nuances of ground/amphibious reconnaissance may not have translated in a wargame, but thankfully we did not fall into the computer modelling trap that the U.S. Army did, divesting of all its manned reconnaissance-except one.

The Army already has been down this road. In 2016, the Army decided to deactivate its active duty long-range reconnaissance patrol (LRRP), retaining some units in the Army National Guard. The Army's decision was predicated on computer modeling. Computer modeling coded LRRP units as small infantry teams meant to locate and close with enemy units, not clandestinely shaping the battlespace, reporting, or developing the situation. In the wargame, no credit was given to the LRRP potential to influence the battlespace. The computer data points, along with general risk aversion and the pension for unmanned systems sent, made the LRRPs "go the way of the Dodo."

Maybe it is easier to imagine an all automated reconnaissance force? If one looks through the Ground Reconnaissance Training and Readiness Manuals, we can automate most of those tasks. If it can be automated, it must be more effective and buys down risk. We should automate ground reconnaissance wholesale, why would we not? Clearly, the optimal solution is to buy a fleet of various sized drones to fly, drive, and swim

to create a perfect, realtime, full motion video current operating picture.

We know machines can outperform humans. Artificial intelligence can defeat human fighter pilots, but we instead chose to keep using the less effective human. Why? If a weapon is fully automated, then what happens when (not *if*) our adversaries "get a hold of the keys?" Dependence on technology is dangerous. Given Moore's Law and the glacial pace of our material acquisitions, our "first move"—or the current competitive advantages our widgets may initially have—could quickly become obsolete. Consider one of the revolutions in military affairs: the tank. The United States and Great Britain had the technology, but the Germans *employed* it most effectively.

If we, as a fighting Service, hold effectiveness and reduction of risk as the primary driver of military evolution, then I will submit that we purchase as many "slaughterbots" as possible—as depicted in a short film by a UC Berkeley professor titled, *Slaughterbots*.[1] This cautionary tale depicts micro-UAVs filled with explosives and operating on artificial intelligence breaching the U.S. Congressional Chamber to target and kill specific individuals with facial recognition software. If we follow the line

of thinking of effectiveness and low risk to humans, acquisition of the weapon system like this must be a forgone conclusion.

In the case of ground/amphibious reconnaissance, the human component offers two distinct advantages over automation.

1. Proximity: Small low probability of detection drones would likely not have the legs to be deployed from the MAGTF headquarters to the objective. Much like an expeditionary advanced base, proximity will be required for the drones to gain access to the target. Special insertion reconnaissance techniques and LAVs cover distances and access areas of the battlespace the MAFTG cannot.

2. Execution in a denied environment: The *Marine Corps Operating Concept* (Washington, DC: HQMC, 2016), addresses a battle of signatures where we expect to fight in a communications degraded or denied environment. Not only can reaconnaissance units gain proximity to the target, the reconnaissance units—as the first "human in the loop"—understand and will execute commanders intent when our adversaries "shut the lights off." Harkening back to the days of the Banana Wars and Evan Carlson's "Long

Patrol" when communication from higher was infrequent, operations were still highly effective because of the Marines' aggressive, creative execution of commander's intent. We will likely surprise ourselves at how much more effective we can be when not drunk on data in an attempt to control battlefield chaos.

Maritime Rangers?

As alluded to earlier, the U.S. Army kept one ground reconnaissance unit. The 75th Ranger Regiment retains a Ranger Reconnaissance Company (RRC) under the Regimental Special Troops Battalion. RRC is tasked with providing "worldwide reconnaissance and operational preparation of the environment in support of the Regiment and other special operations units." Rangers writ large have special reconnaissance as a core mission. The capabilities of the RRC and recon battalion/force recon are similar in terms of hard skills (fire support/shaping, close quarter battle, special insertion). The divergence is in the reconnaissance skill sets. RRC is mandated to conduct operational preparation of the environment (OPE) and within OPE, a subset of advanced force operations (AFO). Uniquely special operations force (SOF) activities, the Marine Corps does not doctrinally conduct OPE, special reconnaissance, nor AFO. These "SOF activities directly support access assurance and forcible entry, two core tasks for the Marine Corps." A master's thesis written in 2013 by LtCol Ian Fletcher details the erosion of Marine Corps AFO capabilities:

> AFO has evolved beyond the Marine Corps current concepts and capabilities. Therefore, the Marine Corps is at risk of becoming dependent on SOF to gain access into the operating environment … Without a relevant AFO force, the Marine Corps will become dependent upon SOF to land on foreign shores.

An example of this was the Task Force 58 (TF-58) deployment into Afghanistan: The 75th Ranger Regiment had raided Objective Rhino two weeks prior to the arrival of TF-58 and cleared the

The advisability of having an actual human observation vice "machine" observation was emphasized since information obtained by surface craft, submarine, aerial observation and photography, might be unable to disclose if emplacements were manned or reveal carefully camouflaged machinegun positions. Against an alert enemy the attacker will have to depend upon landing parties to gain information regarding the enemy's strength and dispositions on shore. The landing parties may consist of agents, patrols, or reconnaissance in force.

—1938 publication of FTP 167 Landing Operations Doctrine*. (Detailed in* FMFRP 21-12.*)*

objective prior to the Marines arrival. In addition, Navy SEAL reconnaissance teams conducted the pre-assault reconnaissance for TF-58. The TF did not employ its twelve Marine reconnaissance teams as an advance force.

However, there is a caveat to this issue. Lest Marine commanders think they can rely on SOCOM to conduct their reconnaissance for them, the Special Operations *Joint Publication 3-05, Special Operations*, (Washington, DC: July 2014) definition of special reconnaissance specifically says: "However, CF-SOF integration does not mean that SOF will become dedicated reconnaissance assets for CF." I lost count of how many times I heard commanders say, "The SOF guys will do that for us," when referring to advanced force operations. Furthermore:

> MARSOC was to be the Marine Corps' bridge between USSOCOM OPE and AFO activities but the elements only deployed with the MEUs for a year before SOF requirements removed them from ARG shipping and focused them solely on meeting USSOCOM priorities. The removal of MARSOC again left the Marine Corps with a gap in capabilities to satisfy its AFO requirements.

The significance of this quote lies in two spate points. First, the Marine Corps

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"It's all about authorities and capability."
—*JSOC Officer,*
Relentless Strike

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should shift its vision of reconnaissance from six Marines with big rucks to a temporal pre-crisis model where commanders seek to shape their areas of influence and interest long before conflict. Our current model is reactive and reliant on others. Achieving the appropriate permissions, authorities, titles, and training to conduct such operations is a challenging subject outside the scope

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of this article. The closest we come to achieving this now is the PROTEUS program, where reconnaissance and intelligence Marines augment SOCOM collection requirements which feed back into the larger intelligence community databases accessed by the MAGTF.

Second, consider MAGTF ground reconnaissance as the "bridging force" between SOF and the MAGTF. Picture SOF access and placement in an area where the MAGTF will conduct joint forcible entry. A logical link would be the deployment of reconnaissance Marines to infiltrate and link up with SOF on the ground. The handshake of the two units has profound potential for MAGTF effectiveness—answering MAGTF intelligence requirements, potential to leverage existing SOF networks, deconfliction of SOF/MAGTF missions, synergistic use of assets, increase in overall combat power of both units, and ultimately an improved understanding of the battlespace by the MAGTF commander. Back on 2012, the Marine Corps Amphibious Capabilities Working Group identified, "integration of Marine multi-capable capacity with SOF authorities and specialized skills [would] provide for an efficient and effective means to project influence and power across a broad range of missions." The Special

Operations Force Liaison Element (SOFLE) program made great strides toward this end. It is a strong link with SOCOM, but ultimately continues to be a "Mother may I" ask from the Marine Corps to ride on the coattails of SOF authorities/permissions. Although identified in 2012, the Marine Corps still cannot conduct its own OPE and AFO.

In Conclusion

Ideally this article opened your aperture of how you view Marine Corps ground reconnaissance, what it is, and what it should be. Moving forward along three lines of effort will increase the strategic value, relevance, and lethality of the MAGTF. First, continue to build manned-unmanned teams. The new normal for ground reconnaissance is a task organized team augmented by air, ground, and amphibious machines. These cross-functional, multi-domain teams could collect, spoof, jam, attack, kinetically and non-kinetically shape, ultimately building an understanding of the battlespace for the MAGTF commander. Second, continue to develop the already recognized value of reconnaissance units as a natural "bridging force" between SOF and the MAGTF. Finally, the Marine Corps should regain its standing as the forward deployed force of choice with the authorities and capabilities to conduct OPE and AFO; truly first to fight, not two weeks after SOF has cleared the area. Our boss was right, we are behind. We are still a work in progress.

Note

1. Stop Autonomous Weapons, "Slaughterbots," YouTube Video, 7:47, (Online: November 2017), available at https://youtube.com.

2. Sean Naylor, *Relentless Strike: The Secret of Joint Special Operations Command*, (New York, NY: St. Martins Press, 2015.)

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