

TRAINING FOR THE ENEMY UAV THREAT

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A large number of senior Army leaders are preaching a return to the kind of operations that occupied the Army's training focus before 9/11. As we move back to core competencies and basic military occupational specialty (MOS)-specific skills, there are some doctrinal and tactical gaps in our reaction to near-peer enemies.

Direct action rotations have started again at the National Training Center (NTC) at Fort Irwin, Calif., but it is still difficult for commanders and small unit leaders to conceptualize a sophisticated, mechanized opposing force (OPFOR) with warfighting capabilities that match ours. No doubt some of this inability is a result of not having faced a competitive mechanized or armor enemy in many decades and focusing so intently on counterinsurgency (COIN) and military operations other than war (MOOTW) for the last 11 years. One specific enemy capability that most commanders and tactical leaders may be unprepared for is the deployment of enemy intelligence collection assets (IC), specifically unmanned aerial vehicles (UAVs).

A recent article in *Foreign Policy* by Marine LtCol Lloyd Freeman is characteristic of the misunderstanding American officers have about UAVs. His bold assertion for the future of warfare is that "[I]and forces will no longer win wars. Computers, missiles, planes, and drones will." I submit that computers, missiles, planes, and drones will be important, but no serious strategist will discount the importance of formations of Armor and Infantry to any protracted military engagement. This lesson has had to be learned again and again by militaries all over the world in conflicts where merely deploying Special Forces or heavy bombing campaigns failed to achieve a decisive result. For examples of this, we can study the Balkans, Chechnya, and Vietnam — three countries in which enormous bombing campaigns failed to destroy or demoralize tenacious ground forces. LtCol Freeman is right to focus on IC assets and high-dollar system capabilities, but it is just as important to prepare for our future enemies' technology as it is to develop and field our own. It will be our countermeasures and our own protection capabilities against observation and strikes executed by enemy unmanned platforms that will guarantee our freedom of maneuver on the battlefields of the future.

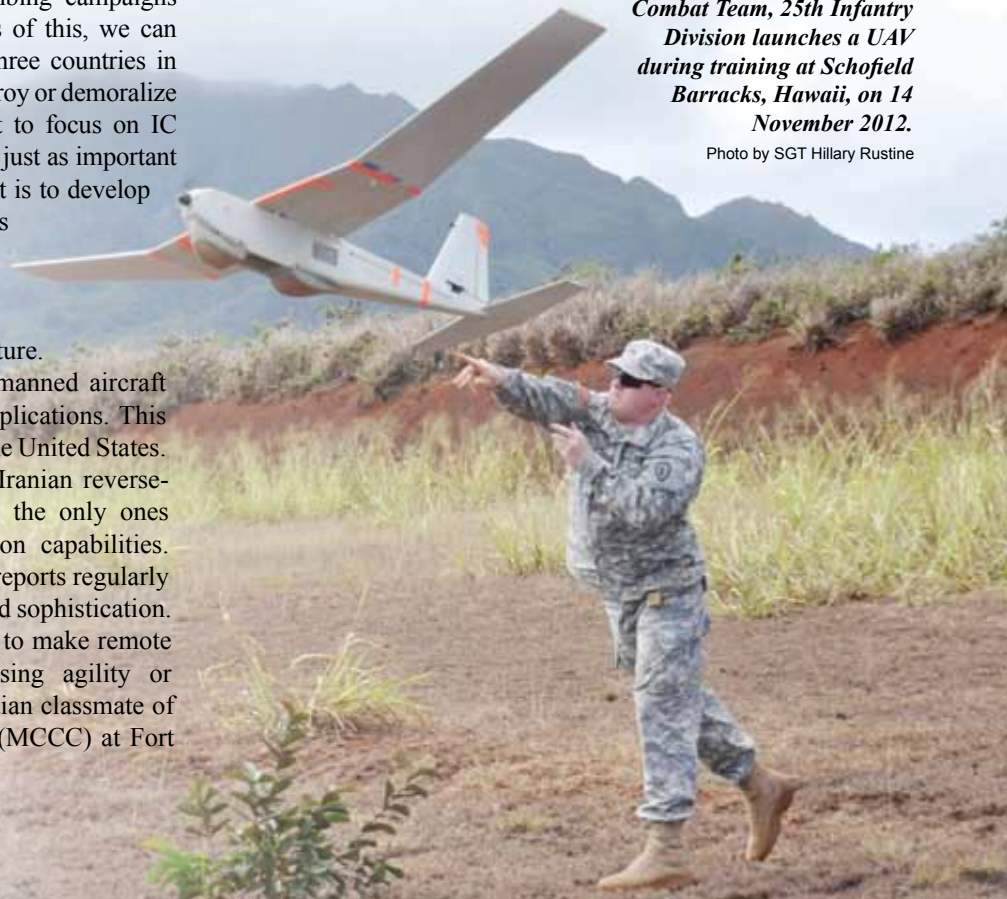
The last five years have seen a boom in unmanned aircraft systems (UAS), both in civilian and military applications. This expansion in technology has not been limited to the United States. In 2011, Iran claimed it captured a U.S. UAV. Iranian reverse-engineering might take time, but they are not the only ones working on matching our intelligence collection capabilities. Small Unmanned Aircraft System (sUAS) News reports regularly on China's UAV fleet, which is growing in size and sophistication. Let us not forget either that it is easier than ever to make remote control airborne vehicles that possess surprising agility or capabilities in a well-equipped garage. An Egyptian classmate of mine at the Maneuver Captains Career Course (MCCC) at Fort

Benning shared the story of a battalion commander in his army that did just that, creating three small UAVs out of remote-controlled airplanes that could be controlled from inside a military vehicle. With observation of the opposing force (OPFOR) formations, his battalion easily won the next round of force-on-force exercises.

Our myopia cannot be entirely blamed on tactical leaders; not every commander will foresee every future problem. Few if any Army ground force commanders have encountered enemy UAVs, and Army doctrine and informational literature do not seriously consider enemy IC assets. The Project Office for Unmanned Aviation Systems, which falls under the Program Executive Office for Aviation, is charged with development, fielding, and logistics, which seems comprehensive, but what about a project office for building anti-UAS weapons? ATTP 3-04.15, *Multi-service Tactics, Techniques, and Procedures for Unmanned Aircraft Systems*, is an excellent guide to the use of UAS, but it does not describe enemy system capabilities or counter-surveillance techniques. This is tantamount to an Infantry manual that only discusses offensive operations, leaving defensive preparations to the imagination of the reader. To defeat enemy close combat attack (CCA) or close air support (CAS), the Army has fielded phenomenally successful weapons like the Javelin, Stinger, and Avenger. We expect to have air superiority because we will counteract the enemy ground installations with high-speed anti-radar missiles (HARM), enemy aircraft with ground-to-air missiles, and enemy missiles with Patriot batteries. Why don't we give the same thought to the battle

A Soldier with the 3rd Brigade Combat Team, 25th Infantry Division launches a UAV during training at Schofield Barracks, Hawaii, on 14 November 2012.

Photo by SGT Hillary Rustine



for low-level air superiority? The battlefield of the future might well be crisscrossed by drones of all sizes, and ours will not be the only ones carrying missiles.

There is one place where enemy UAVs are integrated into training, and that is during NTC direct action rotations. I recently completed a direct action rotation at NTC as the executive officer for a mechanized Infantry company in a combined arms battalion. During a deliberate area defense, my company — securing the right flank of the brigade’s area of operation (AO) — had the challenge of integrating air defense artillery (ADA) protection assets which were attached at the last minute. Because my commander conscientiously utilized all combat multipliers, he ensured that the senior NCO in the Avenger section gave him a capabilities brief and assigned them a position inside our assembly area hidden by an intervisibility line. We established our battle positions, hide positions, and rehearsed our course of action (COA) for about 36 hours before the anticipated enemy attack. Although we did not receive direct or indirect enemy fire, we did experience one form of contact for which we were not prepared — aviation, specifically by an OPFOR Raven UAV.

The morning that the enemy attack was anticipated, our two Infantry platoons and attached armor platoon, with one section of tanks in reserve, moved to their hide positions and began to scan their sectors. After a couple of hours, one of the Bradley commanders reported a small UAV loitering overhead. He may have even called it a “Raven.” Our reaction was: nothing. The UAS quickly disappeared. If the enemy had sent their IC assets an hour later, they would have discovered our battle positions instead of our hide sites and been able to fire accurately.

This vignette is just one example of the lack of preparation for contact with enemy UASs that is taking place at the company and platoon levels. In the short term, units — especially units preparing for a CTC rotation — need to plan for aerial surveillance and develop standard operating procedures (SOPs) for reacting to unmanned IC assets. A dedicated air guard or rigidly enforced priority information requirement (PIR) that included the presence or absence of UAS in the AO could lead to enemy IC

LINE	INFORMATION	EXAMPLE
1	Unit call sign and frequency	Red 1, FHXXX
2	Unit location	6- or 8-digit grid
3	Location of IC asset	Grid or distance and direction from reporting unit location
4	Time IC asset spotted/detected	DTG
5	Estimated time on site	Was IC asset approach observed or was it spotted overhead? How long might it have been there?
6	Flight characteristics	Is IC loitering in one spot (possibly already spotted reporting unit), is it flying straight (en route to loitering location), or is it flying randomly (searching)?
7	Estimated size, elevation, and physical description	Wingspan, height, color, tail configuration, etc.

Figure 1 — Suggested Format for Reporting Enemy IC Assets

assets being spotted before they can see us so appropriate action can be taken. Because some UAV have fixed cameras that show only a tiny portion of the battlefield, often compared to looking through a straw, an attentive air guard could quite possibly spot a UAV before it can spot them. During our defense, we had not talked about an air guard in the operation order so we were thoroughly explored. Our company was already using hide positions to deny enemy forward observers the ability to pinpoint our battle positions and preplan fires, and this was a successful tactic. During our end-of-rotation after action review (AAR), we saw the picture the OPFOR Raven took and our battle positions could not be identified. We could have hidden even better if we had used camouflage netting over the turrets of some of the Bradleys and tanks. This could have led to the enemy gaining an incomplete picture of our composition as well as our position.

At an absolute minimum, any complete battalion SOP should include a reporting format for enemy UAS, and that report should be practiced during situational training exercise (STX) lanes before deployment to a combat zone or CTC rotation. A suggested format for reporting IC assets is outlined in Figure 1.

These are all quick fixes that require no additional resources except time during training. As a long-term goal, the Army should develop anti-UAS devices. Being able

to destroy the enemy’s capability to control unmanned platforms either by jamming the signals to and from a UAS, disabling the cameras onboard, or physically destroying them will be an invaluable asset for ground combat commanders. LtCol Freeman has a very good point — without protection from unmanned aircraft “on today’s battlefield, movement means death.”

In any case, commanders must plan for all eight forms of contact, including aviation in the form of UAVs. CTC rotations stress the existence of near-peer competitors for a reason; the technology gaps between our Army and the most advanced conventional armies around the world are shrinking quickly. UAV technology, especially the smaller ones deployed at the company level, are extremely low-tech compared to the fighters, tanks, and armed UAVs on which military journalists usually focus. It is not inconceivable that some day one of the hooah videos of UAVs destroying unsuspecting dismounts will have to be subtitled for American audiences. Let’s be prepared for that day.

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