Russia Is Winning the Electronic War

by Paul Mcleary via zed - Foreign Policy Magazine *Thursday, Oct 22 2015, 11:30am*
international / prose / post

> It comes at different times, and in different forms. But as they have charted the war in southeast Ukraine over the past year, drones flown by the Organization for Security and Co-operation in Europe have run into the same problem: Russian troops on the ground are jamming them into virtual blindness.

It's just one part of a sophisticated Russian electronic warfare (EW) effort in Ukraine that has proved a sobering experience for the U.S. Army. Faced with how the newly modernized Russian army is operating in Ukraine and Syria — using equipment like the Krasukha-4, which jams radar and aircraft — American military officials are being forced to admit they're scrambling to catch up.

Lt. Gen. Ben Hodges, commander of U.S. Army units in Europe, has described Russian EW capabilities in Ukraine as "eye-watering." Ronald Pontius, deputy to Army Cyber Command's chief, Lt. Gen. Edward Cardon, told a conference this month that "you can't but come to the conclusion that we're not making progress at the pace the threat demands."

The electronic war was on display from the start of the Russian incursion into Crimea in the spring of 2014. Not long after Russian EW equipment began rolling into the region, Ukrainian troops began to find that their radios and phones were unusable for hours at a time. Meanwhile, the Organization for Security and Co-operation in Europe, an international conflict-monitoring group, has consistently reported that its drones watching the conflict in eastern Ukraine have been "subject to military-grade GPS jamming," forcing monitors to scrub missions taking stock of the war below.

At the forefront of the push to get the U.S. Army up to speed is Col. Jeffrey Church, the Army's chief of electronic warfare. But it won't be easy. Dealing with falling budgets, a lack of EW equipment, and a force that is shrinking by tens of thousands of troops, Church says that he has managed to train only a few hundred soldiers — a fraction of the EW forces that are fielded by potential adversaries like Russia and China.

"They have companies, they have battalions, they have brigades that are dedicated to the electronic warfare mission," Church said in an interview with Foreign Policy. Those units are deploying "with specific electronic warfare equipment, with specific electronic warfare chains of command," he said.

Currently, 813 soldiers make up the Army's EW mission, for which just over 1,000 positions have been authorized. And other Army units are guarding against Church's attempts to peel away soldiers

from their ranks to join his. The staffing squeeze is only expected to get worse as the overall Army contracts: At its peak during the wars in Iraq and Afghanistan, the Army had about 570,000 soldiers; it is on pace to be down to 450,000 by the end of 2017. That number could slide even further, to 420,000 over the next several years, if Washington deadlocks over a long-term budget deal in the coming months.

At the moment, U.S. Army battalions typically assign two soldiers to the EW mission, and they will "have to do 24-hour operations" in battle against sophisticated enemies, Church said. That includes planning and coordinating with other battalion units as well as ensuring that their own jammers and advanced communications tools are working. "There's too much to do for those guys in a battalion," Church said. "So how do you maintain in a high-intensity environment against a peer enemy?"

A good amount of the EW equipment the Army bought over the past decade was paid for with supplemental wartime funding accounts. Church said that means it largely sits on shelves, awaiting repair and refurbishments, without regularly budgeted funding to keep it up to date.

In looking at Moscow's capabilities, the U.S. Army's Foreign Military Studies Office assessed this year that Russia "does indeed possess a growing EW capability, and the political and military leadership understand the importance" of such warfare. "Their growing ability to blind or disrupt digital communications might help level the playing field when fighting against a superior conventional foe," the assessment concluded.

Ukraine, which is equipped with easily jammed electronic systems, has proved to be a perfect place for Moscow to showcase its EW prowess. The Russian effort "is likely not aimed at Ukraine as much as it is aimed at NATO and more serious adversaries," said Dmitry Gorenburg, a senior research scientist at CNA, a nonprofit research and analysis organization.

Last March, Deputy Defense Secretary Robert Work created an EW executive committee led by Frank Kendall, the undersecretary for acquisition, technology, and logistics. At the time, Work noted that the Defense Department had "lost focus on electronic warfare at the programmatic and strategic level."

Although the Army is running a number of studies to quickly update and better integrate EW capability, none will be completed soon. In the meantime, Church said, soldiers must start training for new kinds of wars — namely, those that will increasingly depend on the kinds of sophisticated electromagnetic weapons that are becoming a mainstay for America's most powerful conventional adversaries.

"We need to start challenging ourselves a little bit more," Church said. "We should train as we anticipate we will fight.... It's [currently] done very little."

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