From the JED Archives: Russia Developing More Sophisticated Approach to EW

By Hope Swedeen

At a January 2018 panel discussion hosted by The Center for Strategic and International Studies (CSIS), Roger McDermott, senior fellow in Eurasian military studies at King's College in London, spoke to his report, "Russia's Electronic Warfare Capabilities to 2025: Challenging NATO in the Electromagnetic Spectrum."

McDermott stressed that while EW capabilities within the Russian military are advancing, their military is not, by that virtue, an inimitable or unconquerable threat. According to McDermott, the importance of the report is to provide a context for discussions and speculation surrounding Russia's perceived and witnessed military capabilities, particularly their inclusion of EW systems.

McDermott said, "We need to know something about Russia's efforts to integrate C4ISR, the improvements that they've made … and the way that many of these strands of Russian military capability are becoming integrated and feed into one another."

In understanding how EW systems are being implemented into the Russian military's strategy and overall capabilities, McDermott said Russian military leaders are treating the Electromagnetic Spectrum (EMS) as a "potential warfighting domain."

According to McDermott, "The Russian military, for many years, has regarded the EMS as a battle space. It's only now that we're seeing … a closing of the gap between the capabilities, the procurement and their military thinking." That said, if

the EMS is regarded as a domain, “we can’t just strip out the EW capability and look at it separately [from] cyber, SIGINT, air defense,” McDermott said. “[Russia is] using EW with other capabilities to enhance fire control. They’re using it side-by-side with artillery.”

Diving into observations about Russia’s technological advancements within the EW sphere, McDermott said, “They certainly have reached a point … where they do have credible C4ISR capability.” Further, Russia is ensuring its military structure accommodates the need for EW advancements, including enlisting the expertise of “somewhere between 150 and 180 EW specialists” at the tactical level. “They’ve also taken steps to ensure that there’s an EW representation at strategic, operational and tactical levels,” McDermott said.

Michael Kofman, senior research scientist at the Center for Naval Analyses (CNA), spoke to an incident in Syria in early January, when the Russian military successfully stopped 13 armed drones from reaching its Khmeimim Air Base headquarters (on Syria’s coast approximately 15 miles south of Latakia) and Tartus naval base (approximately 40 miles south of Khmeimim Air Base).

“Throughout their military, they have short-range and medium-range point defenses that their ground forces bring along, and there’s absolutely nothing more effective against a drone,” Kofman said. “They also have a lot of electronic warfare systems … and they’re working on systems that are more specific to counter-drone technology.”

Of the attempted attack on the two Russian bases, McDermott said, “One of the reasons the Russian armed forces, and particularly its leadership, are booming with confidence at this point is because they’re gaining such operational experience.” When considering how the Russian and U.S. militaries differ in their efforts to implement EW capabilities and tackle the challenges of the EMS, McDermott

said, “The biggest gap isn’t so much technology, it’s training and how EW is thought about – how it’s exploited. And, that’s the area where it seems that the Russians are making the most progress. It’s the extent to which they’re populating their land [forces] with the systems and with the specialists to engage in this kind of combat.”

According to Kofman, a large obstacle to utilizing and strategizing within the EMS is keeping communications private and “understanding how to reduce the extent to which we’re cooperative in this environment.”

When asked how serious a threat Russia’s EW capabilities may pose to NATO and the U.S. military, McDermott said, “We are by no means attempting to exaggerate the Russian threat, or to say that they have suddenly developed a capability that is a ‘game changer.’” That said, McDermott speculated about the possible outcome of Russian response to future NATO military intervention. “They will build the EW component into their response, and their response will be about making any NATO operation in the Baltic, or elsewhere on NATO’s eastern flank, as difficult, as costly, as complex as possible,” he said. “They will use this [EW] capability to play into the asymmetric advantages that they know they have.”

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