FTCN Replay: Why NATO, the US Lack an Owner for the Spectrum Mission

Drones and cyber tools are easy to picture. The electromagnetic spectrum that connects them is not, and that may be why no one in NATO or the United States clearly owns the mission, according to Dr. Thomas Withington.

A recent episode of **From the Crows' Nest** brought Withington, editor of **Armada International**, defense commentator and military historian, back to the show to talk with AOC Director of Advocacy & Outreach and host Ken Miller about why EMSO keep slipping out of conversations on the future of warfare – and what NATO could do about it.

Miller pointed to the Department of War's Project Meridian, a 120-day look at future warfare and critical technologies, along with a planned Autonomous Warfare Command. Cyber and autonomy are getting functional commands, he said. EMSO still is not.

An Invisible Problem

Withington said the gap is not unique to the US. Russia has a dedicated electronic warfare command, and China has an organization that owns the strategic and operational spectrum mission. NATO and its allies have no equivalent.

Part of the reason, he said, is perception. Policymakers can easily see what a drone does, but the spectrum is harder to explain.

"You're asking people to imagine a space which we have no ability as humans to sense," Withington said.
His answer is to make everyone "spectrum-minded," from

commanders to businesses to civilians, so they think through how they would respond if access to the spectrum were lost.

Who Owns the Mission?

Withington said the doctrinal building blocks already exist, from joint US doctrine to service-level publications. What is missing is a coordinating body above the services.

Such a body, he said, could deconflict procurement so the Army and Air Force are not buying near-identical kit, manage spectrum use and own strategic and operational doctrine. The services would remain free to decide how they perform the mission at the tactical level. The United Kingdom is raising a Cyber and Electromagnetic Activities Command to do something similar.

Withington said he is wary of adding bureaucracy. But he said it is the logical answer here, and that the need will not fade. “The need is not going to go away,” he said.

NATO’s Opportunity

Miller noted that AOC is advancing a **combat support agency proposal** and got a positive response from NATO-affiliated officials during a spring trip to Europe.

Withington said NATO already has an overarching electronic warfare doctrine, AJP-3.6, but the way nations use it varies. He described doctrine as either sheet music or jazz. “You can look at it as sheet music, written by a composer, and you follow the sheet music to the letter,” he said. That, he said, is the Russian approach. NATO’s is closer to jazz, where “you leave the interpretation up to the player.”

Modern EW also depends on how fast forces develop jamming waveforms and put new capabilities in operators’ hands. That is too big for NATO’s current committees, he said. One option is a NATO center of excellence for EMSO, which could spare individual members from duplicating the cost and improve

coordination and innovation.

“We’ve got the building blocks,” Withington said. “We just have to remember how to do it again.”

Thinking the Unthinkable

To reach decision-makers outside the EW community, Withington recommends practical scenarios. He asked what would happen if severe GPS jamming hit the Baltic.

“Who do I call in NATO when that’s happening?” he said.

The answer, he said, likely involves spectrum regulators, militaries and interior ministries, which makes the case for a central authority.

He also said European civil preparedness advice, such as storing 72 hours of food and water, should include spectrum awareness. People may have to fall back on paper maps and landlines. “D-Day was prepared without a single email ever being sent,” he said.

Distributed, Tested and Ready

What keeps Withington up at night, he said, is Europe’s continued appetite for large, monolithic EW systems on the land battlefield. He wants more investment in “attritable, distributed electronic warfare architectures” built on open designs that are easy to upgrade and replace. European companies, he noted, are already testing such systems daily in Ukraine.

On testing, he cited the maxim “build a little, test a little,” and urged making the electromagnetic environment “as unpleasant as humanly possible” for equipment under evaluation. He also floated a large-scale EW exercise modeled on the US Air Force’s Red Flag – a “Hertz Flag,” he joked – and pointed to EW Live in Estonia as a step in that direction. The land domain, he said, should learn from air and naval

ranges such as Spadeadam in the UK.