

# FTCN Replay: The Evolving Role of EW in Conflicts Overseas

In a recent episode of From the Crows' Nest, Nathan Mintz and Porter Smith, co-founders of CX2, discussed their views on the future of warfare, particularly the critical role of electronic warfare (EW). Their perspectives, shaped by years of military and industry experience, echo recent developments on the battlefield and in the geopolitical landscape, underscoring the urgency of adapting to the rapidly evolving nature of modern conflict.

## **The Escalation in the Middle East**

Recorded on Oct. 1, just after news broke of a missile salvo fired by Iran into Israel, the interview began by addressing the unfolding events. According to Porter Smith, Israel's layered air defense system—including systems like Arrow, David's Sling, and the Iron Dome—was activated. However, despite its sophistication, Israel's defensive network may have been stretched as the Patriot layer was triggered, signaling that the missile strike penetrated through multiple defensive levels.

Smith highlighted a strategic curiosity: the absence of drone-based attacks in this latest strike. Unlike previous attacks that included kamikaze drones, this salvo consisted mainly of ballistic missiles. He speculated that Iran might be conserving its drone assets, or perhaps reallocating them for use in other conflicts, such as the war in Ukraine. "There's a lot of diplomatic brinkmanship going on under the surface that we're only seeing kinetically," he remarked, suggesting a deeper layer of complexity behind the missile attack.

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## **The Complexity of Modern Electronic Warfare**

The conversation soon shifted toward the broader implications of these events for electronic warfare. Mintz, a 20-year defense industry veteran and CEO of CX2, noted that electronic warfare is becoming central to any military engagement. “We are entering an era where spectrum dominance is key,” he emphasized, reinforcing a point he and Smith made in their recent Wall Street Journal op-ed, “The Future of Warfare is Electronic.”

Smith, who has experience piloting both Apache and Little Bird helicopters, added a critical operational perspective. “Quantity has a quality of its own,” he explained, noting that even the most advanced defense systems can be overwhelmed by sheer volume. The challenge now, Smith argued, is not just having cutting-edge defense systems, but also managing the massive volume of data and electromagnetic signals on the battlefield.

Electronic warfare is no longer just a supplementary tool for militaries—it is becoming the primary domain of conflict. Israel’s recent operations, which included simultaneous detonation of pagers and push-to-talk radios to disrupt Hezbollah’s communications, showcase how nations are now leveraging EW for tactical advantage. The days of merely relying on kinetic warfare are fading; success in modern conflicts depends increasingly on who can dominate the electromagnetic spectrum.

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## **Lessons from Ukraine**

The war in Ukraine has been a proving ground for EW and has provided valuable lessons for the future of warfare. Russia and Ukraine have both deployed drones on a massive scale. According to Mintz, Ukraine is set to produce one million drones this year, while Russia is expected to build up to half

a million. In contrast, the United States lags significantly behind with projected production of only 20,000 drones in the same period.

“This is the new reality,” Mintz said. “We’ve gone from one plane launching a handful of guided bombs to swarms of one-way drones launched daily. The war has gone fully autonomous.”

These drones are not only proliferating in numbers but are also evolving in sophistication. Recent reports from the battlefield suggest that Russia has deployed fiber-optic drones to counter the congested and contested spectrum. In this environment, Mintz stressed, securing and controlling the electromagnetic spectrum is as critical as controlling air or ground territory.

### **Embracing Commercial Time Scales**

One of the key barriers to innovation within the Department of Defense (DOD) is its lengthy procurement process, which, according to Mintz, slows down innovation and makes it difficult for the U.S. to stay competitive in rapidly evolving technological landscapes. Drawing on commercial development practices, Mintz argues that the DOD must shift toward quicker, more iterative development cycles. This involves adopting commercial Continuous Integration and Continuous Deployment (CICD) practices, allowing for frequent software updates—up to six times a day in some cases.

Smith agrees, noting that the traditional two-year defense funding cycle is too slow to keep pace with modern innovation needs. He suggests the DOD needs to focus on buying assets that are reprogrammable and adaptable, emphasizing the importance of modular and scalable systems. The key is to move away from building multifunctional systems that take years to field, and instead, adopt a more nimble approach, where systems can be iterated upon rapidly, both in software and hardware.

### **Fostering an Innovation Ecosystem**

Nathan Mintz also stresses the importance of creating a fair

and open playing field for startups in the defense sector. He points to the Defense Innovation Unit (DIU) as a positive example of a government organization providing opportunities for startups by lowering barriers to entry. Mintz believes that rethinking the Planning, Programming, Budgeting, and Execution (PPBE) process is crucial. He suggests that the process should not only incentivize innovation but also re-compete contracts every few years to ensure that new technologies continue to emerge and evolve.

Porter Smith adds that building strong relationships with customers early on is critical. He underscores the importance of working closely with stakeholders, including legislators and defense officials, to align the goals of industry with the needs of the DOD. Smith's experience shows that trust and collaboration are essential for any startup aiming to scale in the defense sector.

## **Conclusion**

As warfare evolves, the role of electronic warfare is becoming ever more critical. The rapid proliferation of drones, the reliance on spectrum dominance, and the increasing importance of networked autonomous systems are reshaping the battlefield. As Mintz and Smith highlighted, the future of warfare is electronic, and those who can adapt to this new reality will hold the upper hand in conflicts to come.

## **Start Listening Now**