FTCN Replay: Navigating the Standards Clash: NATO, EW and the Future of Defense Technology

In a recent episode of From the Crows' Nest Podcast, hosted by Ken Miller, Director of Advocacy and Outreach for the Association of Old Crows (AOC), the discussion delved into the intricacies of NATO's operations in the electromagnetic spectrum. The featured guest was Erik Bamford, Branch Chief of Electronic Warfare (EW) for the Norwegian Armed Forces and an AOC Board Member. Together, they explored NATO's approach to EW, the complexities of interoperability and the future of multi-domain operations (MDO).

NATO's Focus on Interoperability in the EW Domain

Erik Bamford began the conversation by providing insight into his recent trip to a NATO Air Force Armaments Group (NAFAC) meeting in Germany. NATO's increasing focus on EW stems from its critical role in ensuring survivability in today's threat landscape.

"EW is high on the list of the current chair… it provides survivability in the threat landscape that we are currently looking at," Bamford shared. His emphasis on EW as a strategic asset underlined the significance of standardizing efforts across all NATO Air Forces.

One of the key challenges in NATO's interoperability is the alignment of standards across nations. NATO aims to provide guidance, but each member country has its own procurement processes. According to Bamford, NATO's objective is to ensure that all countries can work together smoothly, but that's easier said than done.

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> *standardization across the nations to ensure interoperability and industry's pursuit of proprietary solutions to gain an edge in competition."*

The Need for Commonality and Standards

Bamford and Miller addressed the persistent issue of standardization, especially with the rise of cognitive EW and AI-driven systems.

"There's an antagonism between NATO's need for standardization across the nations to ensure interoperability and industry's pursuit of proprietary solutions to gain an edge in competition," Bamford noted. This tug-of-war between NATO's goals and industry's motivations presents significant challenges, particularly in rapidly evolving technological landscapes.

In his reflection on recent field trials, Bamford highlighted how NATO has been conducting EW interoperability trials with small UAVs and RCIDs, marking the progress NATO is making toward fostering unity in defense systems.

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Cognitive EW and Command in Anarchy

As the discussion evolved, Bamford introduced a provocative idea—rethinking the concept of control in future battlespaces. With the rise of cognitive EW, the traditional understanding of control may become obsolete.

"Control is, at best, an illusion in a future force-on-force fight if both sides bring in cognitive capabilities," he asserted. Bamford suggested that rather than striving for control, commanders might need to start with the assumption that anarchy is the norm and adjust their strategies accordingly.

Lessons from Ukraine and NATO's Strategic Adjustments Miller brought up the role of electronic warfare in the ongoing

conflict in Ukraine, which has served as a powerful case study for NATO. Bamford affirmed that Ukraine's experience has been a wake-up call for NATO leadership.

"The Ukraine crisis has been a wake-up call in terms of what works and what doesn't work, particularly when it comes to interoperability," Bamford stated. He further explained how NATO has been supporting Ukraine with EW capabilities and how NATO member nations are aligning their EW efforts to ensure that support is as effective as possible.

The arrival of F-16s in Ukraine was another topic that highlighted the importance of commonality in defense systems. Bamford stressed the need for NATO members to standardize their contributions, particularly in EW, to prevent complications in the battlefield.

"For them [Ukraine] to build a plan on deploying EW, if the variety of systems extends too greatly, we are providing them a problem set instead of a solution," he warned.

Looking Ahead: NATO's EW Strategy and Collaboration with AOC

As the podcast drew to a close, Bamford revealed exciting prospects for future collaboration between NATO and the AOC. He mentioned that there is a strong possibility of hosting a NAFAC meeting alongside the AOC International Symposium in 2024, with a special focus on EW.

"If we can manage to host the NAFAC next year, it will be a big step forward for AOC, but also a big eye-opener for NAFAC and the national representatives," Bamford said, highlighting the potential for the AOC to play a crucial role in shaping NATO's EW strategy moving forward.

Final Thoughts

This episode of From the Crows' Nest provided deep insights into the challenges and opportunities in the world of EMSO and NATO's evolving role in ensuring interoperability and readiness. As Bamford and Miller concluded, it was clear that NATO's focus on EW is not only timely but essential for addressing modern threats in multi-domain operations.

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