

# FTCN Replay: Next Generation Jammer Mid-Band Moves From Development to Deployment

The U.S. Navy's Next Generation Jammer Mid-Band (NGJ-MB) has reached a significant milestone, transitioning from years of development to active combat deployment. In a recent episode of the [From the Crows' Nest](#) podcast, host and AOC's Director of Outreach and Advocacy Ken Miller talked with Chuck Angus, Director of Requirements and Capabilities for Electronic Attack Systems at [Raytheon](#), who provided insights into this game-changing electronic warfare capability and its impact on modern military operations.

## Revolutionary Technology Replaces Vietnam-Era System

The NGJ-MB represents a revolutionary leap forward from the decades-old ALQ-99 jamming system that has served on Navy aircraft since the Vietnam War. "It is really a revolutionary change from where the Navy came with ALQ-99," Angus explained. "You no longer have the mechanically scanned antennas. You don't have the missionization that you had with the ALQ-99."

The heart of the NGJ-MB's advanced capabilities lies in its Gallium Nitride (GaN) technology. This technological breakthrough enables the system to deliver "simultaneous targets with extremely high power with instantaneous switching," creating capabilities that "nobody else worldwide has seen," Angus said.

## Combat-Proven Performance

The NGJ-MB achieved Initial Operational Capability (IOC) in December 2024 and has already seen combat operations. Notably, its first combat deployment supported Air Force operations, highlighting the system's joint-service value. "The first

combat operation that NGJ saw was supporting the Air Force,” Angus noted. “The Air Force took their biggest, baddest airplane they have into combat and what’d they take with them? They took with them a Growler with NGJ.”

This real-world deployment has provided valuable lessons learned, with Raytheon field service representatives working directly with operators aboard the USS Abraham Lincoln during its initial deployment. The collaboration has enabled continuous improvements and modifications to optimize the system’s performance.

## **Production and International Partnerships**

Raytheon has secured multiple production contracts, including recent awards for Lot 4 and Lot 5 production. The company expects to continue receiving annual production awards for the next eight to 10 years, with the Navy’s program of record calling for 129 ship sets, totaling 258 pods.

International partnerships are also expanding, with Australia serving as a cooperative development partner. “Australia has been a great partner for us for many, many years,” Angus said. The Royal Australian Air Force is expected to receive its first pod this summer.

## **Enhanced Frequency Coverage**

The NGJ-MB program has evolved beyond its original specifications with the Mid Band Extended (MBX) capability, which extends frequency coverage to address emerging threats. “The Navy came to us and said, hey, can you improve the frequency coverage on this system? And technology had evolved to a point where we could take that existing AESA array, make some modifications with the GaN, and extend that frequency coverage,” Angus explained.

## **Critical Role in Modern Warfare**

The importance of electronic warfare capabilities in today’s

threat environment cannot be overstated. Angus emphasized that offensive electronic attack is “critical, critical, critical, critical,” pointing to conflicts in Ukraine and recent tensions between Iran and Israel as examples of how electronic warfare dominates modern combat scenarios.

The NGJ-MB’s role extends beyond traditional jamming missions. It can support weapons to target, potentially reducing the number of missiles needed for mission success. “Imagine if you’re going to shoot 10 JASSMs at a target to have the combat effect you’re after. Imagine if you had jamming and you could shoot five,” Angus illustrated. “So what have you done? You’ve increased your magazine depth.”

## **Future Expansion and Capacity Challenges**

Looking ahead, Raytheon is exploring ways to adapt the NGJ technology for other platforms, including bombers, fighters, unmanned aerial systems, and maritime patrol aircraft. The company is also developing smaller form factors to accommodate international platforms like the F-16 and Eurofighter.

“It’s a great time to be an EW guy right now,” Angus concluded, reflecting the growing recognition of electronic warfare’s critical importance in modern military operations. As the NGJ-MB continues its production run and operational deployment, it represents a cornerstone capability for maintaining electromagnetic spectrum dominance in an increasingly complex threat environment.

---

## **LEARN MORE ABOUT NGJ-MB**

The July 2025 issue of the Journal of Electromagnetic Defense (JED) featured a cover story about the evolution of the Next Generation Jammer and how the Mid-Band is bridging critical generational and technological gaps. Read the full story and explore past issues of JED today at [crows.org/jed](https://crows.org/jed).