

# AOC Announces 2025 Future 5 Award Winners

The AOC Foundation has unveiled its [2025 Future 5 award winners](#), recognizing five exceptional young professionals who are actively innovating and driving excellence in electromagnetic warfare, spectrum operations, and information operations. This prestigious annual recognition showcases the next generation of leaders who are shaping the future of national defense and electronic warfare capabilities.

The five honorees represent diverse, cutting-edge approaches to modern warfare challenges, from artificial intelligence integration in testing methodologies to cost-effective electronic attack solutions. Each recipient demonstrates not only technical expertise but also visionary thinking about the evolving landscape of electromagnetic warfare.

Future 5 award winners will be honored at the [2025 AOC International Symposium & Convention](#), December 9-11 in National Harbor, MD.

## Leading Innovation in Test Engineering



**Zachary Cushenberry** of Southwest Research Institute has emerged as a transformative force in electromagnetic warfare test engineering. His career focus centers on addressing what he identifies as critical deficiencies in Department of Defense test technology and methodology, particularly regarding the integration of modern tools

such as AI.

“My primary career goal as an EW engineer is to lead the development and execution of cutting-edge test technologies, ensuring that US EW systems are effective and resilient in the

face of evolving threats,” Cushenberry said. “I want to be a change agent – someone who questions outdated processes and drives innovative, mission-relevant test approaches.”

His standout achievement involved representing Southwest Research Institute’s Ravager project during a major hardware-in-the-loop test event at a prominent DOD EW facility. Cushenberry holds a bachelor’s in computer engineering from the University of Georgia.

## **Bridging Gaps in Defense Technology**



**Luis Garrido** of L3Harris Technologies has distinguished himself through his commitment to connecting cutting-edge technologies with government mission needs. His philosophy emphasizes the critical importance of sustained collaboration between government, industry, universities, and small businesses to leverage emerging technologies.

“My ultimate career goal is to accelerate the development and deployment of critical technologies that help the US military maintain national security and support our allies,” Garrido stated. “I see it as my responsibility to bridge that gap – connecting cutting-edge technologies with government mission needs.”

Garrido’s most significant achievement came through his participation in VALIANT SHIELD 2024 in Hawaii, where his team demonstrated revolutionary EW mission data file reprogramming capabilities with distributed, cloud-connected EW payloads. The journey began with a demonstration in New Jersey that earned recognition from Col. Josh “Mule” Koslov, commander of the 350th Spectrum Warfare Wing, who awarded Garrido his first Challenge Coin. He holds a bachelor’s in electrical and computer science from Rutgers and a master’s in electrical

engineering from Stevens Institute of Technology.

## **Revolutionizing Cost-Effective EW**



**Brandt Lomen** of MITRE Corporation has challenged conventional EW approaches by developing innovative solutions that prioritize operational effectiveness over traditional profit-driven methods. His work focuses on delivering effective electronic attack capabilities that are cost effective.

“Over the past seven years working in electromagnetic warfare, I have witnessed a significant shift in operational priorities. Current conflicts demonstrate that imperfect EW is often more valuable than none at all,” Lomen observed. “My ultimate career goal is to bridge the gap between modern operational EW needs and the industry status quo.”

His most notable achievement is the invention of device of interest that challenges conventional thinking in the field. Despite initial internal skepticism, Lomen persisted in developing this groundbreaking technology, which received validation from an allied air commodore at the Collaborative EW Symposium in 2025. He earned a bachelor’s in electrical engineering from University of Alaska Fairbanks and a master’s in electrical engineering from Worcester Polytechnic Institute..

## **Enhancing Precision in EMS Operations**



**Kane Louderback** of Information Systems Laboratories has dedicated his career to improving accuracy and reducing errors in electromagnetic spectrum operations systems. His work focuses on delivering high-fidelity modeling and simulation capabilities to ensure mission success and protect warfighter lives.

“My ultimate career goal is to make increasingly meaningful contributions to the EMSO and EW communities by improving accuracy and reducing error in our systems, algorithms, and simulations,” Louderback said. “Our warfighters depend on the precision of our tools, and I believe it is our responsibility to provide not just abundant data/training, but the right data/training materials for the mission scenario to ensure realistic and reliable training and preparation for operational success.”

His proudest achievement involves serving as project manager for developing a neural network algorithm under the Advanced Common Electromagnetic Development Environment program at Wright-Patterson Air Force Base. The algorithm addresses the challenging problem of pulse sorting using multipath clutter signatures to distinguish between pulses. The ACEDE team received the Team of the Year award in 2024 from the AOC Kittyhawk Chapter.

## **Empowering Teams for Tomorrow’s Challenges**



**Samantha Schattin** of L3Harris Technologies represents the next generation of technical leadership, focusing on integrating emerging technologies like AI and machine learning to anticipate and solve future battlefield challenges. Her approach emphasizes cross-functional collaboration and strategic thinking.

“The defense industry is evolving rapidly to meet the challenges of a faster, more dynamic threat landscape. My goal is to equip the warfighter with cutting-edge solutions that maximize mission success and enhance safety,” Schattin said. “Rather than reacting to changes in the environment, I strive to anticipate them, integrating innovative capabilities early in development to ensure we maintain a strategic advantage.”

Her greatest achievement involved leading the development and deployment of an advanced electromagnetic warfare capability that efficiently acquires, tracks, and jams RF and PRI-agile threats. Leading a team of approximately 10 engineers across multiple disciplines, she delivered the mission-ready capability within a single year while maintaining rigorous quality standards. Schattin holds bachelor’s and master’s degrees in mechanical engineering from Stevens Institute of Technology.

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## **ABOUT THE AOC FOUNDATION**

[\*\*AOC Educational Foundation\*\*](#) is a 501(c)3 nonprofit foundation that provides grants and scholarships to assist military enlisted personnel, veterans, and US undergraduate students pursuing studies in engineering, physics, mathematics, and related disciplines. The Foundation also supports STEM education relating to the electromagnetic spectrum to middle and high school students around the world.