

Lockheed Martin Unveils Next Generation Missile Defense Sensor Technology

Platform will serve as basis for Lockheed Martin's offering in U.S. Army's upcoming Lower Tier Air & Missile Defense Sensor (LTAMDS) competition

HUNTSVILLE, Ala., Aug. 7, 2017 /[PRNewswire](#)/ -- Lockheed Martin will unveil its next generation air and missile defense radar demonstrator at the annual Space & Missile Defense Symposium this week in Huntsville, Alabama. The active electronically scanned array (AESA) Radar for Engagement and Surveillance (ARES) is a representative full-scale prototype of the technology to support a modern, 360-degree capable sensor that the U.S. Army will use to address current and emerging air and ballistic missile threats.

This fractional array is representative of Lockheed Martin's potential Lower Tier Air & Missile Defense Sensor solution, built on a modular and scalable architecture to scale to the Army's requirements, once finalized, to replace the aging Patriot MPQ-65 radar. The array on display in Huntsville will be used to mature technology and verify performance to ensure uniform 360 degree threat detection and system performance.

"Incremental upgrades to the existing Patriot radar no longer address current sustainment issues, current threat performance shortcomings, or provide growth for future and evolving threats," said Mark Mekker, director of [next generation radar systems](#) at Lockheed Martin. "Lockheed Martin is prepared to offer a next generation missile defense system that will leverage advances in radar technology to provide a modular, scalable architecture and reduce the total cost of ownership well over its 30 year lifecycle."

View a [brief video](#) of the demonstrator.

Lockheed Martin's active electronically scanned array (AESA) technology incorporates gallium nitride (GaN) transmitter technology and advanced signal processing techniques including recently developed and proven 360 degree sensor/fire control algorithms based on advanced threat sets. These technologies and concepts have been fully integrated into both demonstration and production systems resulting in the industry's first fielded ground based radars with GaN technology.

The AESA technology is also in use in the [AN/TP/Q-53 radar system](#), which Lockheed Martin designed, developed and delivered to the Army on an urgent need timeline in under 36 months, and which continues to be scaled to address emerging threats.

"Our solution for the U.S. Army's new air and missile defense sensor is not a new-start program. It's a combination of technology maturation over several years and includes capability leveraged from our current development programs and battlefield-proven radars. We rely heavily on our modern radar systems such as the Q-53 and the Long Range Discrimination Radar to rapidly bring low-risk, proven technology to the warfighter," Mekker said. "We look forward to the opportunity to participate in this competition that will ultimately drive up performance and reduce costs for the U.S. Army."

As a proven world leader in systems integration and development of [air and missile defense](#) systems and technologies, Lockheed Martin delivers high-quality missile defense solutions that protect citizens, critical assets and deployed forces from current and future threats. The company's experience spans radar and signal processing, missile design and production, hit-to-kill capabilities, infrared seekers, command and control/battle management, precision pointing and tracking optics, as well as threat-representative targets for missile defense tests.

For additional information, visit our website: <http://lockheedmartin.com/missiledefense>.

About Lockheed Martin

Headquartered in Bethesda, Maryland, Lockheed Martin is a global security and aerospace company that employs approximately 97,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services.

SOURCE Lockheed Martin

Additional assets available online: [Photos \(1\)](#)

<https://news.lockheedmartin.com/2017-08-07-Lockheed-Martin-Unveils-Next-Generation-Missile-Defense-Sensor-Technology>