

Lockheed Martin's First TPY-4 Radar Completes Production, Bringing Unmatched Tracking Precision And Speed To The U.S. And Its Allies

Syracuse, New York, May 4, 2022 – The world's most advanced and capable transportable or fixed air defense long-range radar, Lockheed Martin's first AN/TPY-4 radar – recently selected by the U.S. Air Force for the Three Dimensional Expeditionary Long Range Radar (3DELRR) Rapid Prototyping program – has completed production marking availability to the world. The technology that enables TPY-4 provides the capability required for today's threats and unprecedented flexibility to adjust quickly to those that emerge over time.

"Lockheed Martin is committed to investing in advanced defense technology, and the TPY-4 radar is a direct result of those investments," said Rick Herodes, Director of Ground Based Air Surveillance Radars at Lockheed Martin. "TPY-4 meets the needs of a rapidly changing battlefields, marked by technological growth and the emergence of increasingly challenging threats."

Milestones & Maturity Development

Lockheed Martin has been on the fast track to provide this radar both in the U.S. and internationally.

In March, the U.S. Air Force selected the TPY-4 radar as the best radar for the 3DELRR program. The 3DELRR contract includes production options for 35 long-range radar systems, planned to reach Initial Operational Capability.

In July 2021, the radar received official nomenclature from the U.S. Government and Kongsberg Defence & Aerospace (KDA) delivered the Platform Electronics Subsystem (PES) for the first TPY-4 radar. The Lockheed Martin and KDA partnership leverages Lockheed Martin's state of the art radar technology and KDA's experience in defense industry solutions, resulting in a next generation sensor that meets and exceeds current long range surveillance requirements.

The World's First Truly Software-Defined Radar

TPY 4 is intentionally designed as a multi-mission system capable of tracking current and emerging threats, and will integrate seamlessly into existing air defense systems. TPY-4 is an internationally available, transportable, multi-mission radar that can operate in contested RF environments. The radar integrates the latest mature commercial technologies to create a revolutionary radar architecture.

The radar system is fully digital at every transmit/receive element with an unprecedented software-defined sensor architecture, allowing the radar to quickly adjust to tomorrow's threats and missions. It's individually software-controlled digital transmitters and receivers provide flexibility to quickly change performance for new missions and environments while providing ease of adaptation to future advanced threats. Performance and operational changes can be made rapidly via software enhancements without the design or hardware changes required by older radar architectures.

TPY-4 outperforms other systems in these key areas:

Target Detection: TPY-4 detects smaller, harder-to-detect next generation threats in heavy clutter.

Mission Diversity: The radar operators can quickly pivot from one mission to another, enabling them to address threats in a contested environment. The radar will operate in extreme climates and environments.

Software Defined: The system is digital at every element with operation and performance defined software enabling quick upgrades to combat emerging threats. TPY-4 adheres to open hardware, software, and interface standards to ensure long-term supportability and ease of integration.

Transportability: The system is available in both fixed and transportable variants able to be transported via C-130, C-17, truck, rail, or helicopter.

About Lockheed Martin

Headquartered in Bethesda, Maryland, Lockheed Martin is a global security and aerospace company that employs approximately 114,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services.

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