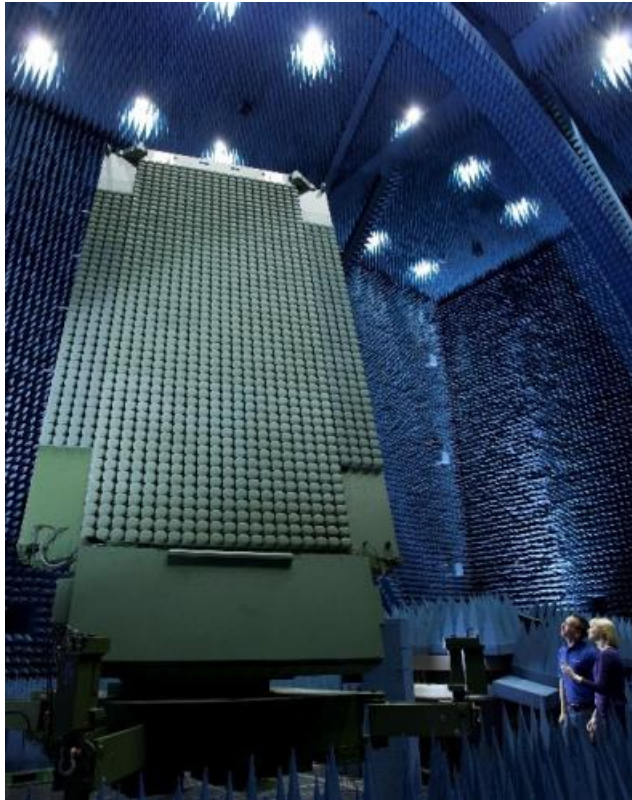


TPY-4 Radar Earns Official U.S. Government Designation, Setting New Standard In Airspace Threat Detection

Lockheed Martin's investments ensure radar meets future unprecedented needs in highly contested environments



TPY-4 is a fully digital, software-defined sensor architecture, allowing users to maintain ongoing surveillance throughout the mission. Photo courtesy Lockheed Martin

SYRACUSE, N.Y., Sept. 13, 2021 - As the world's most capable and flexible ground based multi-function long-range radar, [Lockheed Martin's TPY-4](#) has received its official U.S. Government nomenclature - AN/TPY-4(V)1 - officially marking the radar's maturity and its ability to deliver fully-digital technology, and therefore setting a new standard for the future of radars.

"Our team has worked diligently to deliver this advanced radar supporting domestic and international air surveillance requirements," said Chandra Marshall, vice president and general manager at Lockheed Martin. "This designation represents our commitment to furthering our radar capabilities to specifically overmatch emerging, complex, and advanced threats."

Lockheed Martin's specialized team has spent more than 10 years and more than \$100 million in research & development funds for the TPY-4 radar, including the construction, operation, and testing of prototype radar systems. TPY-4 offers multi-mission capabilities, such as early warning, situational awareness, tactical ballistic missile surveillance and air defense. It also integrates the latest mature commercial technologies to create a revolutionary radar architecture.

Recent Testing Achievements

The first TPY-4 is well ahead of any competition and [already in production to be unveiled later this year](#). The radar's production sub-assemblies are passing environmental and performance tests, attributed to the foundation built and validated under Lockheed Martin's investment and the commonality with the [U.S. Army's Sentinel A4 radar](#). The radar's test results continue to surpass model predictions, as validated by open air testing, furthering the qualification of this advanced radar.

The TPY-4 Radar: A Fully Digital Solution for Today's and Tomorrow's Threats

TPY-4 is an internationally available, transportable, multi-mission radar that can operate in contested RF environments and provide the warfighter an ability to detect and track threats better than any previous radar available today. It accomplishes this with a fully digital, software-defined sensor architecture, allowing users to maintain ongoing surveillance throughout the mission.

That's because the TPY-4 radar users are not locked by the system's hardware. Users have the ability to transmit *and receive* digitally, allowing for more enhanced target identification and classification. Earlier radars may have some level of digitization, but Lockheed Martin's software-defined TPY-4 radar is digital at every element and across the entire architecture. Users don't have to account for downtime for time-consuming actions, like hardware upgrades or manual data transfers.

"Our digital transmitter and receiver architecture provides flexibility to adjust performance for evolving missions, threats, and environments," said Rick Herodes, Lockheed Martin's Radar and

Sensor System's Ground Based Air Surveillance program director. "TPY-4 provides unprecedented flexibility through software updates without invasive or time-consuming architectural redesigns, therefore making it the most effective risk management solution for national defense."

Lockheed Martin Radar Family History

TPY-4 was developed to include all the experience that Lockheed Martin's radar product family offers. The technology investments include Gallium Nitride (GaN), which Lockheed Martin has been [delivering worldwide since 2017](#), providing greater efficiency and improved reliability as compared to legacy systems.

Lockheed Martin's long range and medium range surveillance radars have set the industry standard for ground-based air surveillance for decades. With more than 60 years of experience developing and delivering ground-based radar solutions to its customers around the world, Lockheed Martin has a long history of high-performing, high-reliability radar systems.

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. For additional information, visit our website: www.lockheedmartin.com.

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<https://news.lockheedmartin.com/2021-09-13-TPY-4-Radar-Earns-Official-US-Government-Designation-Setting-New-Standard-in-Airspace-Threat-Detection>