Lockheed Martin Achieves First Light In Latest Laser Lab Demonstration

The demonstration verifies beam quality of our affordable 50 kW-class laser architecture designed to meet U.S. Army's modernization strategy

BOTHELL, Wash., Jan. 23, 2023 – Lockheed Martin (NYSE: LMT) achieved first light from the Directed Energy Interceptor for Maneuver Short-Range Air Defense System (DEIMOS) system, which verifies that the laser's optical performance parameters align with the system design parameters.

Lockheed Martin's 50 kW-class DEIMOS system is a ruggedized, tactical laser weapon system that can be integrated into the Stryker combat vehicle to deliver robust directed energy capability to the U.S. Army's challenging maneuver-short range air defense (M-SHORAD) mission.

"The 50 kW-class laser weapon system brings another critical piece to help ensure the U.S. Army has a layered air defense capability," said Rick Cordaro, vice president, Lockheed Martin Advanced Product Solutions. "DEIMOS has been tailored from our prior laser weapon successes to affordably meet the Army's larger modernization strategy for air and missile defense and to improve mission success with 21st Century Security solutions."

Why It Matters

Lockheed Martin's DEIMOS first light demonstration is a crucial milestone along the path to helping the Army perform its DE M-SHORAD mission, which is intended to deliver a maneuverable laser system capable of negating unmanned aerial systems, rotary-wing aircraft and rockets, artillery and mortars.

First light measures the expected beam quality of the system while testing end-to-end performance of our game-changing, low-cost Spectral Beam Combination (SBC) architecture. The key benefit of the company's SBC is that power can be scaled while retaining the excellent beam quality of the individual fiber lasers.

In 2022, Lockheed Martin demonstrated Layered Laser Defense (LLD) capability by defeating two surrogate cruise missiles at tactically relevant ranges. This LLD capability:

- Shares many common elements with the DEIMOS system architecture, such as allowing for a single operator to engage and destroy SHORAD targets.
- Can be seamlessly integrated into various platforms.
- Can fit on tactical platforms such as a Stryker vehicle because it was designed with constraints in terms of size, weight and power (SWaP).

What's Next

Utilizing a philosophy of "build a little, test a little, learn a lot," Lockheed Martin will expand the DEIMOS test program in 2023, culminating with field integration tests in 2024. This thorough approach is designed to reduce risk, to enable soldier touchpoints and to provide proof points of compelling mission capabilities.

The Army's Rapid Capabilities and Critical Technologies Office (RCCTO) is leading the DE M-SHORAD prototyping effort and is expected to transition the program to the Program Executive Office (PEO) Missiles & Space in 2024.

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

About Lockheed Martin

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