

Raytheon Selects Orolia's Time and Frequency Platform to Support Next-Gen Missile Defense System



Raytheon
Missiles & Defense

Background

Raytheon Technologies (Raytheon) was selected by the U.S. Army to provide its next-generation, 360-degree-capable radar in October 2019. The Army needs the new Lower Tier Air and Missile Defense Sensor (LTAMDS) to help defeat increasingly complex and technologically advanced threats, like hypersonic weapons. Mission timing and frequency systems are an essential sub-system of radar solutions, providing the ultra-precise base reference frequency required to successfully transmit and receive high powered radio pulses. Raytheon needed a supplier with the timing expertise and experience to meet the stringent requirements for this sophisticated threat detection and alert program.

Solution

Raytheon chose Orolia to provide a customized mobile time and frequency reference system to support the LTAMDS radar program for its ability to meet a complex set of requirements including precision time and frequency, low-phase noise to minimize vibration noise, ruggedized small SWaP (Size, Weight and Power), and configurability of the inputs, outputs and form factor. Orolia' was chosen based on its core expertise in resilient positioning, navigation and timing (PNT) systems for challenging environments together with its proven track record of successfully delivering time and frequency platforms for other Raytheon Programs of Record. Orolia was also the first company to receive approval for a time and frequency reference system on the Defense Information Systems Agency (DISA) Department of Defense Information Network (DoDIN) Approved Products List for network interoperability, with its flagship SecureSync system.



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Ultra-precise mission timing and sync technology are fundamental building blocks for the Resilient PNT systems that warfighters rely on for continuous operations in contested environments. We are proud to be a Raytheon Missiles and Defense partner on LTAMDS and other programs that utilize GPS signals for timing, frequency and network synchronization across critical military systems.

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Hironori Sasaki

President of Orolia Defense & Security

Results

Less than five months after the U.S. Army chose Raytheon to produce the new Lower Tier Air and Missile Defense Sensor, the first LTAMDS radar antenna was built and the first round of indoor testing was completed. Orolia's customized solution is the high performance, easily integrated timing and frequency sub-system supporting this major U.S. defense program.

From critical timing solutions to GPS/GNSS simulation and, PNT cybersecurity, Orolia is the industry leader in end-to-end NAVWAR and Resilient PNT solutions to protect, augment and strengthen military systems for GPS-denied environments.

Orolia is the world leader in Resilient Timing and Synchronization solutions for missions where failure is not an option.

Time and Location You Can Trust.™