Lockheed Martin To Build 10 Small Satellite Mesh Network In Two Years

Space Development Agency Transport Layer will use commercial approaches with rapid development and launch

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LITTLETON, Colo., Sept. 1, 2020 – The Space Development Agency (SDA) awarded a Tranche 0 contract of the Space Transport Layer to Lockheed Martin (NYSE: LMT) to demonstrate a mesh network of 10 small satellites that links terrestrial warfighting domains to space sensors – all launching in just two years.

The $187.5-million contract for Transport Layer’s Tranche 0 is an initial test and demonstration phase, with two prime contractors building a total of 20 satellites. The first step toward building an interoperable, connected secure mesh network, it will help enable Joint All-Domain Operations, allowing warfighters to stay ahead of emerging threats. By linking nodes together, seamless connectivity is created between all domains, much like today’s smartphones.

“We see a world across all warfighting domains where fourth and fifth-generation fighters and tactical forces on the ground can connect seamlessly with holistic situational awareness,” said Kay Sears, vice president and general manager of Lockheed Martin Military Space. “Interoperability and battlespace connectivity are critical to staying ahead of our adversaries.”

The 10 satellites, operating in Low Earth Orbit, will provide secure high-bandwidth,
low-latency data links. Additionally, new Link 16 network connectivity will be introduced to space. This capability will connect to systems that include fighter aircraft like F-16, F-22, and F-35, missile defense networks like PAC-3 and THAAD, weapons systems, and Integrated Air and Missile Defense (IAMD) networks, and will provide sensor-to-shooter targeting and situational awareness for tactical land and maritime warfighters.

**Changing the Dynamics of Warfighting**

This beyond-line-of-site tracking, targeting and communications will dramatically extend U.S. warfighting options and allows additional coalition and allied partners to eventually bring their capabilities into the network. Interoperability extends into space with prospective data connections to commercial satellite communications (SATCOM) and other military protected satcom systems, which will require close partnership with multiple companies across industry.

**How Software Adds Flexibility to Missions**

Each Transport Layer satellite will be fully-software defined, using SmartSat™, Lockheed Martin’s software-defined platform that makes it easier to dynamically add and quickly change missions in orbit through simple app uploads. The satellites will also be fully cyber-hardened from day one using Lockheed Martin’s Cyber Resiliency Level® model to identify cyber strengths and weaknesses so we can address those early in the design process.

The Transport Layer contributes to resilience in space communications. Mission resilience comes from being able to form a seamless network of networks, with network nodes spanning multiple domains and services provided via multiple tactical data links, making it much harder for an adversary to disrupt because of network diversity and node distribution.

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

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