MUOS-5 Secure Communications Satellite Reaches Orbit, Begins Pre-Operational Testing



MUOS-5 completes the U.S. Navy's network of orbiting satellites and relay ground stations that is revolutionizing secure communications for mobile military forces.

SUNNYVALE, Calif., Nov. 4, 2016 /<u>PRNewswire</u>/ -- The fifth Mobile User Objective System (<u>MUOS</u>) satellite built by Lockheed Martin (NYSE:LMT) for the U.S. Navy has reached orbit, successfully deployed its solar arrays and antennas, and is beginning preoperational, on-orbit testing.

Originally launched from Cape Canaveral Air Force Station on June 24, MUOS-5 experienced an anomaly with its orbit raising propulsion system on its way to geosynchronous orbit on June 29. Out of caution, the Navy and Lockheed Martin engineering team immediately placed the satellite in a safe mode in transfer orbit as they investigated and examined their options.

"In the end, the Navy and Lockheed Martin engineering team were able to isolate the issue and develop a work-around using alternative propulsion," said Mark Woempner, director of Narrowband Communications Systems at Lockheed Martin. "Once we had a plan together, in early October we carefully re-started orbit

raising maneuvers."

MUOS-5 completed orbit raising on Oct. 22, and successfully deployed its solar arrays for power generation and its antennas for mission operations on Oct. 30. The satellite will begin on-orbit testing before being turned over to the Navy for further testing and eventual commissioning into service.

For the Navy, MUOS-5 completes a network of orbiting satellites and relay ground stations that is revolutionizing secure communications for mobile military forces. Users with MUOS-capable terminals will be able to seamlessly connect beyond line-of-sight around the world and into the Global Information Grid, as well as into the Defense Switched Network. <u>MUOS' capabilities</u> include simultaneous, crystal-clear voice, video and mission data over a secure high-speed Internet Protocol-based system.

The MUOS network provides near-global coverage, including <u>communications reach deep into polar</u> <u>regions</u>. Once fully operational, the network will provide users with 16 times more communications capacity than the legacy system it will eventually replace.

The <u>Navy's Program Executive Office for Space Systems</u> and its Communications Satellite Program Office responsible for the MUOS program are based in San Diego. Lockheed Martin assembled and tested all five now-on-orbit MUOS satellites at its Sunnyvale, California, facility.

For additional MUOS information, photos and video visit: www.lockheedmartin.com/muos.

About Lockheed Martin

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Pre-Operational-Testing