

Lockheed Martin Team Conducts Major Compatibility Test Of First Mobile User Objective System Satellite

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Lockheed Martin has demonstrated the interface compatibility of the first Mobile User Objective System (MUOS) satellite's dual legacy and next-generation Ultra High Frequency (UHF) communications payloads with ground user test terminals.

This major milestone ensures that mobile users of the existing UHF Follow-On (UFO) system will have a smooth transition to MUOS, which will provide significantly improved and assured communications for U.S. mobile warfighters. With the adaptation of state-of-the art 3rd-Generation (3G) mobile technology, the Lockheed Martin design will deliver simultaneous voice, data and video services as well as the ability to increase capacity and features over the life of the program.

The successful test, conducted at Lockheed Martin's Space Systems facilities in Sunnyvale, Calif., validated the compatibility of the dual UHF payloads with legacy radios and MUOS test terminals using the newly developed Wideband Code Division Multiple Access (WCDMA) waveform and ground system. A simultaneous WCDMA data call and legacy voice call was performed to validate simultaneous operations of the dual payload configuration.

The test was successfully completed under a multi-beam area communications environment. Two simultaneous network circuits were established including a dedicated 25-KHz legacy channel supporting 16 Kbps voice and a WCDMA 5-MHz channel point-to-network supporting 9.6 Kbps data. The legacy signal was also subjected to propagation loss due to environmental and atmospheric conditions to simulate an operational environment.

"This successful satellite-to-terminal test demonstrates that MUOS will be able to serve legacy communications users for many years to come, effectively extending the life of current UHF radios," said Mark Pasquale, Lockheed Martin's MUOS vice president. "We look forward to our continued progress and delivering this critical capability to the mobile warfighter."

Lockheed Martin Space Systems, Sunnyvale, Calif., is the prime contractor and systems integrator for the MUOS program. MUOS satellites are being developed at the company's facilities in Newtown, Pa., with final assembly and test taking place in Sunnyvale.

MUOS satellites will be the largest of Lockheed Martin's flight-proven A2100 spacecraft series ever built. The first MUOS satellite along with the associated ground system provided by

General Dynamics C4 Systems, Scottsdale, Ariz., are scheduled for on-orbit hand-over to the Navy in 2011.

The Navy's Program Executive Office for Space Systems, Chantilly, Va., and its Communications Satellite Program Office, San Diego, Calif., are responsible for the MUOS program.

Headquartered in Bethesda, Md., Lockheed Martin is a global security company that employs about 140,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services. The corporation reported 2008 sales of \$42.7 billion.

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