

# Lockheed Martin Team To Build Mobile User Objective System Using Latest Cellular Technology

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MONTEREY, Calif.

A Lockheed Martin -led team will employ third-generation (3G) commercial cellular technology to build the Mobile User Objective System (MUOS), an advanced narrowband tactical satellite communications system that will provide significantly improved and assured communications for U.S. warfighters, the company announced today at MILCOM 2004 in Monterey.

With the first satellite scheduled for launch in 2010, MUOS will replace the current Ultra High Frequency Follow-On (UFO) system. MUOS satellites will be fully compatible with the existing UFO system and associated legacy terminals, while dramatically increasing military communications availability by leveraging 3G commercial cellular advancements, which represent significant improvement over previous networking technologies.

The MUOS 3G Wideband Code Division Multiple Access (WCDMA) waveform and Universal Mobile Telecommunications System (UMTS) infrastructure are the main technologies that will transmit text, voice, video, and multimedia to a wide range of platforms, including handheld terminals with an "always-on" connection that will be significantly faster than previous systems. MUOS also will maximize the full feature capability of the future Joint Tactical Radio Systems (JTRS) terminals now under development.

"This vital system promises to be the hallmark for narrowband tactical military communications for the next 20 years," said Leonard F. Kwiatkowski, vice president, Lockheed Martin Space Systems, "and will be the solution to the warfighters' long-sought capability of real-time communications on the move. The entire Lockheed Martin team is extremely excited to have been selected to build this critical defense capability."

Lockheed Martin Space Systems, Sunnyvale, Calif. the MUOS prime contractor and system integrator, was recently awarded a \$2.1 billion contract to build the first two satellites and associated ground control elements by the U.S. Navy Space and Naval Warfare Systems Command (SPAWAR), on behalf of the Program Executive Office - Space Systems, San Diego, Calif. The contract also provides for options on three additional spacecraft. With all options exercised, the contract for up to five satellites has a total potential value of \$3.26 billion.

MUOS satellites will be developed at the company's Commercial Space Systems unit in Newtown, Pa.; final assembly and test will occur in Sunnyvale. Lockheed Martin's award-winning A2100 bus, which has achieved over 100 years of on-orbit service, will serve as the MUOS spacecraft platform.

Other teammates include:

-- General Dynamics C4 Systems, Scottsdale, Ariz., which will lead the user-entry and integrated ground segments of the MUOS program, supplying a secure ground network, satellite control and network management, and a JTRS-compliant terminal solution.

-- Boeing Satellite Systems (BSS), El Segundo, Calif.; The satellite-manufacturing arm of Boeing Integrated Defense Systems will provide the legacy UHF payload.

-- Ericsson, Plano, Texas. The leader in 2G and 3G mobile technology systems will provide portions of the integrated ground segment.

-- Harris Corporation, Melbourne, Fla. A world leader in spaceborne, unfurlable mesh reflectors, Harris will provide the large reflectors for the MUOS program. The reflectors, two per satellite, will be manufactured at Harris facilities as part of the MUOS geo-synchronous satellite's ultra high-frequency (UHF)-band antenna system.

Other MUOS teammates include Northrop Grumman, Aurora, Colo., InterDigital, Valley Forge, Pa.,

Epsilon, San Diego, Calif., and Pinnacle Network Systems, Virginia Beach, Va.

Headquartered in Bethesda, Md., Lockheed Martin employs about 130,000 people worldwide and is principally engaged in the research, design, development, manufacture and integration of advanced technology systems, products and services. The corporation reported 2003 sales of \$31.8 billion.

For an image of the Mobile User Objective System (MUOS) go to:

<http://www.lockheedmartin.com/wms/findPage.do?dsp=fec&ci=16046&rsbci=0&fti=111>

&ti=0&sc=400

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