

New Military Communications Satellite Begins Final Round Of Testing At Lockheed Martin

The first Advanced Extremely High Frequency (AEHF) military communications satellite built by Lockheed Martin for the U.S. Air Force has entered final testing at the company's Sunnyvale, Calif. facilities.

AEHF will provide global, highly secure, protected, survivable communications for all warfighters serving under the U.S. Department of Defense. The AEHF system is the successor to the five-satellite Milstar constellation which has accumulated over 50 years of combined on-orbit operations.

With the successful completion of all spacecraft environmental testing, the Lockheed Martin-led team is now executing the final integrated spacecraft and system test procedures necessary to prepare the vehicle for flight. Over a 75-day period, the satellite will go through a series of factory tests to verify all spacecraft interfaces, demonstrate full functionality and evaluate satellite performance.

"The start of final integrated system testing is a major milestone for the team that moves this sophisticated space vehicle another step closer to the launch pad," said John Miyamoto, Lockheed Martin's AEHF vice president.

Col. Michael Sachet, commander of the Protected Satellite Communications Group at the U.S. Air Force's Space and Missile Systems Center said, "We are on track for delivery early next year and look forward to the ultimate deployment of this satellite, which will provide substantially improved high-speed, protected communications for our warfighters."

The first AEHF spacecraft is planned for a 2010 launch aboard an Atlas V launch vehicle. The second and third AEHF satellites are also progressing through final integration and test activities and are on track for launch in 2011 and 2012 respectively.

Lockheed Martin Space Systems, Sunnyvale, Calif., is the Advanced EHF system prime contractor and is providing a militarized version of its flight-proven A2100 spacecraft bus and the mission control segment, which will consolidate Milstar and Advanced EHF satellite control and communication resource planning into a single, modernized mission control system.

Northrop Grumman Aerospace Systems, Redondo Beach, Calif., is the payload integrator and provider of the payload processors, nulling antennas, the inter-satellite crosslinks, RF antenna equipment, and phased array antennas. Advanced EHF satellites will also feature an electric propulsion system, provided by Aerojet of Sacramento, Calif.

A single AEHF satellite will provide greater total capacity than the entire Milstar constellation currently on-orbit. Individual user data rates can be up to five times higher than Milstar's highest speed. The faster data rates will permit transmission of tactical military communications, such as higher-quality real-time video and quicker access to battlefield maps and targeting data.

In addition to its tactical mission, AEHF will also provide the critical survivable, protected, and enduring communications to the National Command Authority including presidential conferencing in all levels of conflict.

Lockheed Martin is currently under contract to provide three AEHF satellites and the Mission Control Segment to the Military Satellite Communications Systems Wing, located at the Space and Missile Systems Center, Los Angeles Air Force Base, Calif. The program has begun advanced procurement of long-lead components for a fourth AEHF satellite.

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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