Lockheed Martin Delivers Key Software, Hardware For New Missile Warning Satellite

Extensive Test Phase of First SBIRS GEO Spacecraft Underway

The Lockheed Martin team developing the Space-Based Infrared System (SBIRS) has successfully delivered a critical payload subsystem and associated software integral to the program's first geosynchronous orbit (GEO) satellite.

SBIRS, with its highly sophisticated scanning and staring sensors, will provide the nation with significantly improved missile warning capabilities and support other missions simultaneously including missile defense, technical intelligence and battlespace characterization.

The software will provide for the effective control and testing of the spacecraft's Pointing and Control Assembly (PCA), both of which were delivered to Northrop Grumman Electronic Systems, Azusa, Calif., for payload integration and testing. The GEO PCA features Lockheed Martin's patented reaction-less gimbal system, which allows the satellite to rapidly and repeatedly scan an area of interest for infrared activity while not interfering with the satellite's ability to simultaneously stare at another area.

The completed payload is scheduled to be delivered to Lockheed Martin's facilities in Sunnyvale, Calif., in mid-2007 for final spacecraft assembly, integration and test in preparation for launch in fiscal year 2008.

"The PCA and its associated software are essential to the vital capabilities that SBIRS will provide to the warfighter," said Mark Crowley, Lockheed Martin's SBIRS vice president. "The team continues to perform with sustained momentum and a relentless focus on achieving mission success on this critical national program."

Spacecraft Functional Testing Progressing

The team is also in the midst of an important spacecraft test phase at Lockheed Martin's facilities in Sunnyvale, Calif. Known as Spacecraft Functional Testing (SCFT), this major milestone will verify the functional requirements of the GEO spacecraft and further assure that the structure is assembled to specification.

The spacecraft is tested at ambient conditions to verify correct operation of the electrical power, command and data handling, thermal management, guidance navigation and control, communication and propulsion subsystems.

Following successful completion of SCFT, the team will prepare the spacecraft for engineering thermal vacuum testing which will verify the spacecraft performance at temperature extremes greater than those expected during on-orbit operations.

Lockheed Martin is currently under contract to provide two payloads in highly elliptical orbit (HEO) and two GEO satellites, as well as fixed and mobile ground-based assets to receive and process the infrared data. The team has delivered both HEO payloads and is on track to launch the first GEO satellite in fiscal year 2008.

Headquartered in Bethesda, Md., Lockheed Martin employs about 135,000 people worldwide and is principally engaged in the research, design, development, manufacture and integration of advanced technology systems, products and services. The corporation reported 2005 sales of $37.2 billion.

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