Lockheed Martin Delivers Key Hardware For Missile Warning System

Lockheed Martin has achieved another major step in the development of the nation's next-generation missile warning system with the successful delivery of the spacecraft core structure with an integrated propulsion subsystem for the first Space-Based Infrared System High (SBIRS High) geosynchronous orbit (GEO) satellite.

Developed and tested at Lockheed Martin's Mississippi Space & Technology Center, an advanced propulsion, thermal, and metrology facility located at the John C. Stennis Space Center, the propulsion subsystem is essential for maneuvering the satellite during transfer orbit to its final location as well as conducting on-orbit repositioning maneuvers throughout its mission life. The SBIRS propulsion subsystem consists of 18 reaction engine assemblies, a fuel tank, two oxidizer tanks, and a liquid apogee engine. The design is based on Lockheed Martin's flight-proven A2100 geosynchronous spacecraft series.

The system was delivered to Lockheed Martin's facilities in Sunnyvale, Calif., in preparation for spacecraft assembly, integration and test scheduled to begin later this year. In addition to housing the propulsion subsystem, the delivered SBIRS core provides the load-bearing structure for all other satellite components including the scanner and starer infrared payloads. More than 95% of the flight components for the first SBIRS spacecraft have been delivered.

"The team has achieved a key hardware milestone and moved the nation's next-generation missile-warning capability one step closer to reality," said Mark Crowley, Lockheed Martin's SBIRS High vice president. "The core structure represents the backbone of the GEO satellite, which will provide unprecedented capabilities for the warfigther. We look forward to our continued progress as we enter the critical integration phase of this first- of-its-kind, highly sophisticated system."

Lockheed Martin Space Systems, Sunnyvale, Calif., is developing the SBIRS High program under contract to the U.S. Air Force Space and Missile Systems Center, Los Angeles Air Force Base, Calif. Northrop Grumman Electronic Systems, Azusa, Calif., is the payload provider.

When fully operational, SBIRS High will comprise two payloads in highly elliptical orbit (HEO), four satellites in geosynchronous orbit (GEO), as well as fixed and mobile ground-based assets to receive and process the infrared data. The team has completed the HEO payloads and is on track to begin final integration and test of the first GEO satellite later this year in preparation for launch aboard an Evolved Expendable Launch Vehicle in fiscal year 2008.

In addition to providing early warning of missile launches, SBIRS will support other critical missions simultaneously, including missile defense, technical intelligence and battlespace characterization.

SBIRS will support missile defense by providing the earliest possible warning of ballistic and theatre missile attacks and accurate information to effectively cue other ballistic missile defense system elements to support intercept and negation of the threat. Improved capabilities for technical intelligence will enable combat commanders the flexibility to gain valuable insight into an adversary's battlespace and provide both tactical and strategic missile warning around the globe.

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 2004 sales of $35.5 billion.

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