Lockheed Martin SBIRS Team Completes On-Orbit Handover Of First HEO Payload To U.S. Air Force

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Lockheed Martin announced today the successful on-orbit handover of the first Space Based Infrared System (SBIRS) Highly Elliptical Orbit (HEO-1) payload and ground system to the U.S. Air Force in preparation for the start of certified operations later this year.

SBIRS is designed to provide early warning of missile launches, and simultaneously support other missions including missile defense, technical intelligence and battlespace characterization.

Announced to be on-orbit in Nov. 2006, the HEO-1 payload has been exceeding performance specifications during an extensive on-orbit test regimen necessary before it can begin on-orbit operations for the user. The HEO-1 payload and associated ground components will now undergo a final independent operational test and evaluation.

"This major milestone is direct testimony to our entire team's talent and dedication to successfully deliver this vitally important program to the warfighter," said Jeff Smith, Lockheed Martin's SBIRS vice president. "The improved infrared event detection and reporting capabilities provided by SBIRS are critical to our nation's information and intelligence architecture and we look forward to achieving total mission success for our customer."

The SBIRS team is led by the Space Based Infrared Systems Wing at the U.S. Air Force Space and Missile Systems Center, Los Angeles Air Force Base, Calif. Lockheed Martin Space Systems Company, Sunnyvale, Calif., is the SBIRS prime contractor, with Northrop Grumman Electronic Systems, Azusa, Calif., as the payload integrator. Air Force Space Command operates the SBIRS system.

The U.S. Air Force/Lockheed Martin-led team recently announced that the HEO-2 payload is now on-orbit over the northern hemisphere and that its performance meets or exceeds specifications following early on-orbit checkout. In addition to detecting ballistic missile launches from northern polar regions, HEO payloads also have improved sensitivity needed to detect dimmer theater missiles and can be tasked to scan other areas of military interest. The HEO-2 payload is expected to begin operations by early 2009.

The HEO sensor provides an unprecedented infrared view of the battlefield that represents the first steps in an evolving battlespace awareness capability while also providing real-time data on missiles, aircraft and other events.

The team is also progressing through key integration and test activities on the first geosynchronous orbit (GEO) spacecraft. Preparations are now underway to integrate the GEO-1 satellite's solar arrays, deployable light shade, and thermal blankets in preparation for the start of acoustic and pyroshock testing in August when the integrated spacecraft will be subjected to the maximum sound and vibration levels expected during launch into orbit. Thermal vacuum testing of the completed GEO-1 space vehicle, which will validate its performance at temperature extremes greater than those expected during on-orbit operations, is on track for mid-2009 in preparation for launch in Dec. 2009.

As the SBIRS prime contractor, Lockheed Martin Space Systems Company provides program management, the GEO spacecraft bus, HEO and GEO payload pointing, and system engineering and integration. Lockheed Martin Information Systems & Global Services builds and maintains the SBIRS ground segment which has been operational since 2001. Northrop Grumman is the major subcontractor and provides the HEO and GEO payloads and participates in ground system development and systems engineering.

Lockheed Martin's current SBIRS contract includes the two HEO payloads now on-orbit, two GEO satellites, as well as ground-based assets to receive and process the infrared data. The program is in the early stages of adding additional GEO spacecraft and HEO payloads to the planned constellation.

Headquartered in Bethesda, Md., Lockheed Martin 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 2007 sales of $41.9 billion.

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