U.S. Air Force/Lockheed Martin Team Achieves Major Operational Milestone On First SBIRS HEO System

Lockheed Martin announced today that the U.S. Air Force has certified readiness for dedicated operational utility evaluation and trial period operations of the first Space Based Infrared System (SBIRS) Highly Elliptical Orbit (HEO-1) payload and associated ground system in preparation for use by the warfighter.

SBIRS is designed to provide early warning of missile launches, and simultaneously support other missions including missile defense, technical intelligence and battlespace awareness. Announced to be on-orbit in Nov. 2006, the HEO-1 payload has been exceeding expectations during an extensive on-orbit test regimen necessary before beginning on-orbit operations for the user.

"The HEO system's outstanding performance and reliability is a true testament to the dedication, skill and operational excellence of our entire SBIRS team," said Col Roger Teague, the U.S. Air Force's SBIRS Wing Commander. "We look forward to successfully executing the next step's necessary to making this critical national asset operational for the warfighter this year."

As part of the operational utility evaluation, the system will enter trial period operations in which for the first time, live HEO data will be injected into the warfighters operational networks providing critical warning and intelligence data. This will culminate with United States Strategic Command's final certification of the HEO-1 payload and ground processing elements later this year when the HEO sensor and its data will be declared operationally proven and accepted.

"Our number one priority is delivering mission success for our customer," said Jeff Smith, Lockheed Martin's SBIRS vice president. "We take great pride that the HEO system is providing superior detection and reporting capabilities for the warfighters, and we look forward to further enhancing the SBIRS mission with the launch of the first geosynchronous spacecraft next year."

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.

"With its high-quality sensor performance, SBIRS will provide substantial mission utility to the warfighter," said Steve Toner, vice president of the SBIRS program for Northrop Grumman. "We are confident that HEO-1 will operate well throughout the trial period."

The U.S. Air Force/Lockheed Martin-led team recently announced that the HEO-2 payload is now on-orbit and that its performance meets or exceeds specifications following early on-orbit checkout. In addition to detecting ballistic missile launches from 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 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 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 2007 sales of $41.9 billion.

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