U.S. Air Force/Lockheed Martin SBIRS Team Completes On-Orbit Checkout Of Second HEO Payload

Nation's newest high-performance space-based sensor will deliver revolutionary new global surveillance capabilities to the warfighter

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A joint U.S. Air Force/Lockheed Martin team announced today that it has successfully completed on-orbit checkout of the second Highly Elliptical Orbit (HEO-2) payload in the Space Based Infrared System (SBIRS) constellation.

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

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 successful deployment and checkout of the nation's second of a new generation of SBIRS sensors demonstrated that its performance meets or exceeds specifications. Equipped with a sophisticated scanning sensor, the HEO-2 payload joins the first HEO payload, which continues to perform with outstanding results as it is readied to begin on-orbit operations for the user later this year.

In addition to detecting ballistic missile launches from northern polar regions, HEO payloads also have improved sensitivity needed to detect dim theater missiles and can be tasked to scan other areas of military interest. 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 second HEO sensor is performing as advertised and we are delighted for our Air Force customer. This further confirms the capability that we can expect with the forthcoming launch of the GEO constellation," said Joanne Maguire, Space Systems Company executive vice president. "This event is another major step forward in our commitment to provide unparalleled space surveillance capabilities that will put critical, near real-time information in the hands of our warfighters."

SBIRS geosynchronous (GEO) satellites, the first of which is on track for launch in late 2009, feature a scanning sensor that will provide for short revisit times over its full field of view and a staring sensor that can be tasked for step-stare or dedicated stare operations over smaller areas. The GEO scanner and other payload components such as the focal plane assembly, and processing algorithms are identical to those used on HEO payloads.

"With the second HEO sensor on-orbit and providing the same revolutionary capability as the first sensor, SBIRS is now providing outstanding persistent surveillance of the northern hemisphere," said Jim Pitts, Northrop Grumman's corporate vice president and president, Electronic Systems, the payload integrator. "We're proud of role in bringing this unparalleled capability to the warfighers."

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 Integrated Systems & Solutions 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.

"The SBIRS team takes great pride in providing the U.S. military with significantly improved surveillance capabilities," said Jeff Smith, Lockheed Martin's SBIRS vice president and program manager. "The performance of this sophisticated payload reflects the talent and dedication by a joint government-industry team relentlessly focused on achieving mission success on this program. We look forward to further expanding SBIRS mission capabilities with the launch of the first GEO satellite."

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.

Media Contacts: Steve Tatum, 408-742-7531;
e-mail, Stephen.o.tatum@lmco.com
Chip Manor, 408-742-3397;
e-mail, Charles.manor@lmco.com

First Call Analyst:
FCMN Contact:

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