Space Tracking and Surveillance System Delivers Sensor Payload

Air Force Lieutenant General Henry “Trey” Obering III announced that the Missile Defense Agency’s (MDA) Space Tracking and Surveillance System (STSS) Program accomplished a major milestone recently by delivering the first Block 2006 sensor payload. This marks a major step in our ability to provide a space-based tracking capability for the Ballistic Missile Defense System.

Comprised of refurbished hardware, originally built as flight demonstration satellites, the STSS Program will provide significant and unique capabilities for missile defense. The payload sensor suite, consisting of an acquisition sensor and a track sensor, is capable of detecting visible and infrared light. The satellites will demonstrate the ability of an STSS constellation to provide global coverage 24 hours a day, 7 days a week of ballistic missile events and continuous tracking of missile and re-entry vehicles (warheads) through all phases of flight. Infrared sensing is expected to provide a sensor capability not subject to some limiting factors of radars and improve target acquisition by interceptor missiles.

Two STSS research and development satellites will launch into low earth orbit in 2007 on a single Delta II launch vehicle. These satellites will demonstrate the key functions of a space based sensor and will aid in closing the fire control loop to the Ballistic Missile Defense System. The satellites will pass missile tracking data to missile defense interceptors with the accuracy and timeliness necessary to enable them to successfully intercept missile targets.

The STSS Block 2006 satellites will perform on-orbit testing of sensor performance against ground targets, airborne targets, and short and long range missile targets. The satellites are expected to support the Ballistic Missile Defense System for at least two years after launch.

The STSS payload was built by the Raytheon Company in El Segundo Calif., and delivered to the STSS prime contractor Northrop Grumman Corporation in Redondo Beach, Calif.

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