# Lockheed Martin GPS III Team Completes Key Flight Software Milestone

NEWTOWN, Pa., March 15, 2011 /PRNewswire/ -- The Lockheed Martin-led team developing the U.S. Air Force's next generation Global Position System, known as GPS III, has successfully completed the program's first major flight software integration milestone at the company's software integration laboratory in Newtown, Pa.

The test event successfully integrated the initial flight software builds and flight-like computer processors for the satellite bus On-Board Computer (OBC), the Navigation Payload Mission Data Unit (MDU) and the Communications Payload Thin Communications Unit (TCU). The successful test demonstrated the ability to communicate between the GPS III satellite bus, network communications and navigation elements, and is a key step in reducing risk for the program's flight software development.

"The entire government/industry team is focused on delivering GPS III affordably and efficiently to meet the ever-expanding needs of the nearly one billion GPS users worldwide," said Keoki Jackson, Lockheed Martin's GPS III program manager. "Completion of this flight software milestone demonstrates our continued positive momentum and is another step forward in reducing risk and increasing mission assurance for this vital program."

The GPS III team will now work to fully qualify the flight software prior to integration on the GPS Non-Flight Satellite Testbed (GNST), which will serve as the program's ground pathfinder and vehicle demonstrator for the first complete GPS III satellite. The entire GPS III development and production sequence will utilize the GNST to provide space vehicle design level validation; early verification of ground, support, and test equipment; and early confirmation and rehearsal of transportation operations.

The GPS III team successfully completed the program's Critical Design Review (CDR) in August 2010, and is proceeding steadily in the manufacturing phase. Having completed more than 50 percent of the program's Manufacturing Readiness Reviews (MRRs) and now with completion of the first major flight software milestone, the team is on track to deliver the first GPS IIIA spacecraft as planned in 2014.

GPS III will improve position, navigation and timing services and provide advanced anti-jam capabilities yielding superior system security, accuracy and reliability. The first increment, in a planned three increments, GPS IIIA will deliver signals three times more accurate than current GPS spacecraft and provide three times more power for military users, while also enhancing the spacecraft's design life and adding a new civil signal designed to be interoperable with international global navigation satellite systems.

The GPS constellation provides critical situational awareness and precision weapon guidance for the military and supports a wide range of civil, scientific and commercial functions - from air traffic control to navigation systems in cars, cell phones and wristwatches. GPS is increasing productivity in areas as diverse as farming, mining, construction, surveying, package delivery and supply chain management. The system is also enhancing public safety by reducing response times for ambulances, firefighters and other emergency services.

Lockheed Martin, Newtown, Pa., along with teammates ITT of Clifton, N.J., and General Dynamics of Scottsdale, Ariz., is under contract to deliver the first two GPS IIIA spacecraft to the Global Positioning Systems Directorate of the U.S. Air Force Space and Missile Systems Center, Los Angeles, Calif., and has also begun advanced procurement of long lead part for the third and fourth GPS IIIA spacecraft. Air Force Space Command's 2nd Space Operations Squadron (2SOPS), based at Schriever Air Force Base, Colo., manages and operates the GPS constellation for both civil and military users.

Headquartered in Bethesda, Md., Lockheed Martin is a global security company that employs about 132,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services. The Corporation's 2010 sales from continuing operations were $45.8 billion.

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*Low- and high-resolution JPEG image files of GPS satellites are available at:* http://www.lockheedmartin.com/GPS/

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