U.S. Air Force Successfully Launches Upgraded GPS Satellite Built By Lockheed Martin

A Global Positioning System (GPS) satellite built by Lockheed Martin for the U.S. Air Force was successfully launched today from Cape Canaveral Air Force Station, Fla. The satellite features significant upgrades, including an advanced antenna panel, which will deliver greater performance and power for GPS receivers. Today's launch represented the 50th GPS mission for the nation.

GPS IIR satellites are designed to improve global coverage and increase the overall performance of the global positioning constellation. Lockheed Martin has delivered 21 of these satellites to the U.S. Air Force Space and Missile Systems Center, Los Angeles Air Force Base, Calif. There are now a total of 28 GPS satellites on orbit, including 10 new-generation GPS IIR spacecraft.

"We are proud of our partnership with the Air Force in providing the warfighter, as well as civil, scientific, and commercial users around the globe, with high performance positioning and timing capabilities," said Dave Podlesney, GPS IIR Program Director, Lockheed Martin Space Systems in Valley Forge, Pa. "The 50th GPS mission is a major program milestone and we look forward to achieving a successful on-orbit checkout to quickly place the satellite's advanced navigational capabilities into operational service."

The Global Positioning System allows any properly equipped user to determine precise time and velocity and worldwide latitude, longitude and altitude to within a few meters. Although originally designed as a guidance and navigational tool for the military, GPS has proven beneficial in the commercial and civil markets for transportation, surveying and rescue operations. U.S. Air Force Space Command, Schriever Air Force Base, Colo., manages and operates the GPS constellation for both civil and military users.

The very first GPS satellite was launched on February 22, 1978 aboard a Lockheed Martin-built Atlas rocket from Vandenberg Air Force Base, Calif. The GPS IIR satellites are compatible with the first-generation global positioning spacecraft and provide improved navigation accuracy, achieved by using an ITT Industries payload system. Increased autonomy and longer spacecraft life are other features inherent in the Lockheed Martin satellite design.

To bring new capabilities to the GPS constellation, Lockheed Martin is under contract to modernize eight existing GPS IIR spacecraft already built and in storage. These spacecraft, designated GPS IIR-M, will incorporate two new military signals and a second civil signal to provide military and civilian users of the navigation system with improved capabilities much sooner than previously envisioned.

GPS modernization is being performed by Lockheed Martin at its Space Systems Company facilities in Valley Forge, Pa., and ITT Industries in Clifton, N.J. The first launch of a GPS IIR M satellite is scheduled for March 2005.

Lockheed Martin is also leading a team to develop the U.S. Air Force's next-generation Global Positioning System satellite, GPS III. The team, which includes Spectrum Astro, Raytheon, ITT, and General Dynamics, is currently under contract for GPS III concept definition and plans to compete for the future development.

GPS III will address the challenging military transformational and civil needs across the globe, including advanced anti-jam capabilities, improved system security and accuracy, and reliability. The new satellite system will enhance space-based navigation and performance and set a new world standard for positioning and timing services. The team selected to meet this challenge will provide system and sustaining engineering, satellite development and production, control segment upgrades, and continuous research and development for this evolutionary system.

Headquartered in Bethesda, Md., Lockheed Martin employs about 130,000 people worldwide and is principally engaged in the research, design, development, manufacture and integration of advanced technology systems, products and services. The corporation reported 2003 sales of $31.8 billion.

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Low- and high-resolution JPEG image files of GPS IIR satellites are available

at: http://lmms.external.lmco.com/photos/military_space/ and click on GPS

For more information about Lockheed Martin Space Systems -Sunnyvale, see our

website at http://lmms.external.lmco.com

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