

Lockheed Martin Advances Modernization Of Current GPS Ground Control System For U.S. Air Force

CUP2 Operational Control Segment Upgrades Now Fully Operational

COLORADO SPRINGS, Colo., Dec. 1, 2016 /PRNewswire/ -- Lockheed Martin (NYSE: LMT) has completed a major upgrade to modernize the current ground control system of the U.S. Air Force's Global Positioning System (GPS) satellite constellation.

The Commercial Off-the-Shelf (COTS) Upgrade #2 (CUP2) project is the latest step in the Air Force's multi-year plan to refresh technology and transform the legacy Operational Control Segment -- known as the Architecture Evolution Plan (AEP) -- into a modern, high-performance command and control system. On October 15, CUP2 became fully operational and began managing the 31 GPS IIR, IIR-M and IIF satellites that make up today's GPS constellation.

"Under CUP2, Lockheed Martin and the Air Force installed modern commercial hardware and a major software upgrade that enhances the system's ability to protect data and infrastructure from cyber threats, as well as improves its overall sustainability and operability," said Vinny Sica, vice president and general manager of Mission Solutions for Lockheed Martin. "Continued modernization and cyber-hardening of the GPS control system is vitally important to the sustainment of navigation services for our military and all global GPS users."

The Air Force awarded Lockheed Martin the CUP2 project in November 2013 under its [GPS Control Segment \(GCS\) contract](#), and the system is now fully deployed into the AEP's GPS Master Control Station and the Alternate Master Control Station. This is the third major technology refresh of the GPS command and control system since the GCS contract began in January 2013.

This upgrade to the existing ground control system provides the Air Force with flexibility. In May, as part of Contingency Operations (COps) under the GPS III contract, Lockheed Martin demonstrated a preliminary design to build off CUP2 and further upgrade the AEP to support next generation [GPS III satellites](#) as they perform their positioning, navigation and timing mission. COps is a temporary gap filler prior to the entire GPS constellation's transition onto the next-generation Operational Control System (OCX) Block 1, which is currently in development.

The [Global Positioning Systems Directorate](#) at the U.S. Air Force Space and Missile Systems Center contracted the CUP2 upgrade. [Air Force Space Command's 2nd Space Operations Squadron](#) (2SOPS), based at Schriever Air Force Base, Colorado, manages and operates the GPS constellation for both civil and military users.

For additional GPS Ground Control System information, photos and video visit: <http://www.lockheedmartin.com/us/products/gpsgcs.html>.

About Lockheed Martin

Headquartered in Bethesda, Maryland, Lockheed Martin is a global security and aerospace company that employs approximately 98,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services.



U.S. Air Force GPS satellite operators at the master control station, Schriever Air Force Base, Colo. (photo courtesy of the U.S. Air Force)

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