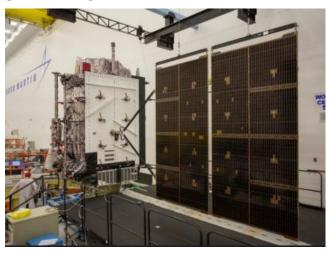
## U.S. Air Force Awards Lockheed Martin GPS M-Code Early Use (MCEU) Ground System Upgrade Contract

MCEU will accelerate deployment of modernized GPS signals to warfighters

DENVER, Sept. 12, 2017 /PRNewswire/ -- The U.S. Air Force awarded Lockheed Martin (NYSE: LMT) a \$45.5 million contract to provide Military Code (M-Code) Early Use (MCEU) capability to the Global Positioning System (GPS).

Part of the Air Force's overall modernization plan for the GPS, M-Code is an advanced, new signal designed to improve anti-jamming and protection from spoofing, as well as to increase secure access, to military GPS signals for U.S. and allied armed forces.

MCEU will provide command and control of M-Code capability to eight GPS IIR-M and 12 GPS IIF satellites currently on orbit, as well as <u>future GPS</u> III satellites, which the Air Force expects will begin launching in 2018. MCEU is envisioned as a way to accelerate M-Code's deployment in order to support testing and fielding of modernized user equipment in support of the warfighter.



The Military Code (M-Code) Early Use (MCEU) contract will accelerate deployment of command and control of M-Code capability to GPS IIR-M and GPS IIF satellites currently on orbit, as well as future GPS III satellites (like GPS III SV02 above).

The Air Force's MCEU contract directs Lockheed Martin to upgrade the existing Architecture Evolution Plan (AEP) Operational Control System (OCS) allowing it to task, upload and monitor M-Code within the GPS constellation. The contract includes new software and hardware development which will be deployed in 2019 to world-wide ground facilities that support the Air Force's GPS.

"When people think of GPS, they often think of the satellites that provide the signals, but do not remember the important ground system behind it. We recognize the 'ground' is critical for any major space mission constellation and we are proud that we can help the Air Force with this part of their GPS modernization plan," said Mark Stewart, Lockheed Martin's vice president for Navigation Systems.

The AEP OCS -- currently maintained by Lockheed Martin under the GPS Control Segment (GCS) Sustainment Contract -- controls the 12 GPS IIR, 8 IIR-M and 12 IIF satellites in orbit today. The company has successfully implemented several recent projects to modernize and sustain the system for the Air Force.

In June, Lockheed Martin deployed the first of its state-of-the-art GPS Monitor Station Technology Improvement Capability (MSTIC) receivers at Cape Canaveral Air Force Station. The software-defined MSTIC system replaces 30-year-old hardware, positioning the Air Force to take advantage of commercial off-the-shelf technology enhancements in processing power, reliability and cybersecurity in the future. Six Air Force AEP OCS monitoring stations around the world will receive the MSTIC upgrade by the end of 2017.

In February 2016, the Air Force awarded Lockheed Martin the GPS III Contingency Operations (COps) contract to upgrade the AEP OCS with new capabilities so it could support the more powerful, next generation GPS Block III satellites. The COps program passed a successful Critical Design Review milestone with the Air Force in December 2016.

Also in 2016, under the GCS contract, Lockheed Martin completed the <u>Commercial Off-the-Shelf Upgrade #2 (CUP2) project</u> -- part of a multi-year plan to modernize the AEP OCS' technology and enhance the system's ability to protect data and infrastructure from internal and external cyber threats, as well as improve its overall sustainability and operability. CUP2 is now fully operational

and managing the current GPS constellation.

For additional GPS III information, photos and video visit: www.lockheedmartin.com/gps.

## **About Lockheed Martin**

Headquartered in Bethesda, Maryland, Lockheed Martin is a global security and aerospace company that employs approximately 97,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services.

SOURCE Lockheed Martin		

 $\frac{https://news.lockheedmartin.com/2017-09-12-U-S-Air-Force-Awards-Lockheed-Martin-GPS-M-Code-Early-Use-MCEU-Ground-System-Upgrade-Contract\\$