



Global Security team plays major role in recent launch of new GPS instrumentation

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A team of fourteen satellite payload operators in Global Security’s Intelligence and Space Research Division recently completed the Early On-orbit Test (EOT) of the Los Alamos Electromagnetic Pulse (EMP) and X-Ray sensing payloads hosted on the recently launched Global Positioning System (GPS) satellite. This satellite (GPS III-02) is the second “Block III” variant to join the constellation of 30+ GPS satellites that orbit 22,000 km above the Earth’s surface. GPS satellites provide global position, navigation, and timing services as well as nuclear test treaty monitoring capability, thanks to a suite of sensors provided by the Los Alamos and Sandia National Laboratories.

Nicknamed “Magellan”, GPS III-02 was launched in the summer of 2019. Its payloads were tested by the ISR operations team post-launch last fall. The satellite was then placed in a stable, non-functioning configuration for 6 months while readiness of the satellite ground control system was confirmed. Last month the satellite was stirred from its rest by U.S. Space Force operators and the Laboratory’s payloads were tested during nine consecutive nights of operations from the Classified Satellite Operations Center. Testing included active stimulation from the Los Alamos Portable Pulser. In addition to working long and unusual hours to support the EOT, the operations team observed new “social distancing” guidelines put into place to address the COVID-19 threat.

The EMP sensing payload is the Burst Detector V-sensor (BDV); The X-Ray sensing payload is the Combined X-ray and Dosimeter (CXD). The next GPS launch with the next set of Los Alamos National Laboratory’s sensing payloads is currently scheduled for later this summer.