

ADVANCING THE GPS MISSION

For more than 40 years, L3Harris' satellite payloads and subsystems have enabled the U.S. Air Force Global Positioning System (GPS). Our ongoing investments will continue to make this essential service more accurate, reliable, and resilient.

PRECISION NAVIGATION

The world relies on GPS for applications across a wide range of industries, including the Department of Defense, aviation, agriculture, finance and banking, and transportation. L3Harris' signal waveform expertise is behind the system's ongoing availability, accuracy, and integrity. L3Harris' new GPS Mission Data Unit is 70% digital and offers excellent performance, exceeding Air Force requirements.

ESSENTIAL TIMEKEEPING

Though known primarily as a navigation system, GPS is also used to disseminate precise time, time intervals, and frequency. GPS carrier signals originate from onboard atomic clocks that are monitored by ground control stations and send global time 24 hours a day. L3Harris' atomic timekeeping systems have flown on 20 GPS satellites and are recognized as the most accurate ever flown.

MODERNIZATION

L3Harris is developing and integrating the satellite navigation payloads for the next generation of GPS and is providing the key navigation processing elements and precision monitor station receivers for the GPS Opera-

tional Control Segment (OCX) program. GPS modernization will provide users with even greater accuracy, security, and reliability.

ENCRYPTION

L3Harris is the leader in signal encryption and M-code, the name given to a signal designed to improve both the security and anti-jamming properties of military GPS navigation. We provide key super-succession, key upload, and over-the-air-rekeying (OTAR). Superior security is evident in the flexible reprogrammable design of a crypto engine, which is certifiable and modular. It includes information security and information assurance boundaries. We also have the ability to produce a signal using modernized NAVSTAR Security Algorithm (MNSA) encryption.

INVESTMENTS FOR TOMORROW

L3Harris research and development investments are leading to the next-generation, fully digital navigation payload for future satellites. Benefits will offer enhanced performance, on-orbit reprogrammability and the ability to add new signals.



Evolving a Global Utility with Mission-Critical Navigation Payload Solutions

L3HARRIS PROVIDES:

- > Proven and vetted development and production process
- > Mature and qualified supply chain supporting production runs
- > Established testing infrastructure and security certifications
- > Significant investments for future improvements



ADVANCING THE GPS MISSION WITH MISSION-CRITICAL NAVIGATION PAYLOAD SOLUTIONS

ON ALL 70+ GPS SATELLITES



Every GPS satellite ever launched has used L3Harris navigation technology

800 YEARS FAILURE FREE



L3Harris' GPS payloads have a successful cumulative track record of on-orbit operation

NAVIGATION PAYLOADS



L3Harris' GPS navigation payloads include atomic clock timing systems, radiation-hardened computers, and powerful signal transmitters

THE BRAINS OF GPS SATELLITES

The Mission Data Unit, designed and built by L3Harris, creates and delivers the accurate, robust navigation signals for the GPS satellite constellation

PRECISION TIMEKEEPING



L3Harris' atomic timekeeping systems have flown on 20 GPS satellites and are the most accurate ever flown

NEXT-GEN GPS ADVANTAGES

Our new GPS navigation payloads deliver more signals, more robust signal generation and power, and greater user accuracy

230 DEDICATED EMPLOYEES



Located in Clifton, NJ, L3Harris' team of positioning, navigation, and timing professionals are delivering the GPS mission

PROTECTING GPS SIGNALS

The new, 70% digital mission data unit for GPS improves information assurance capabilities and delivers 8x more anti-jamming power

\$20 MILLION INVESTMENT



L3Harris' R&D investment has resulted in the next-generation, fully digital navigation payload for the GPS Follow-On satellites

Advancing the GPS Mission

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L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.



L3HARRIS™
FAST. FORWARD.

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