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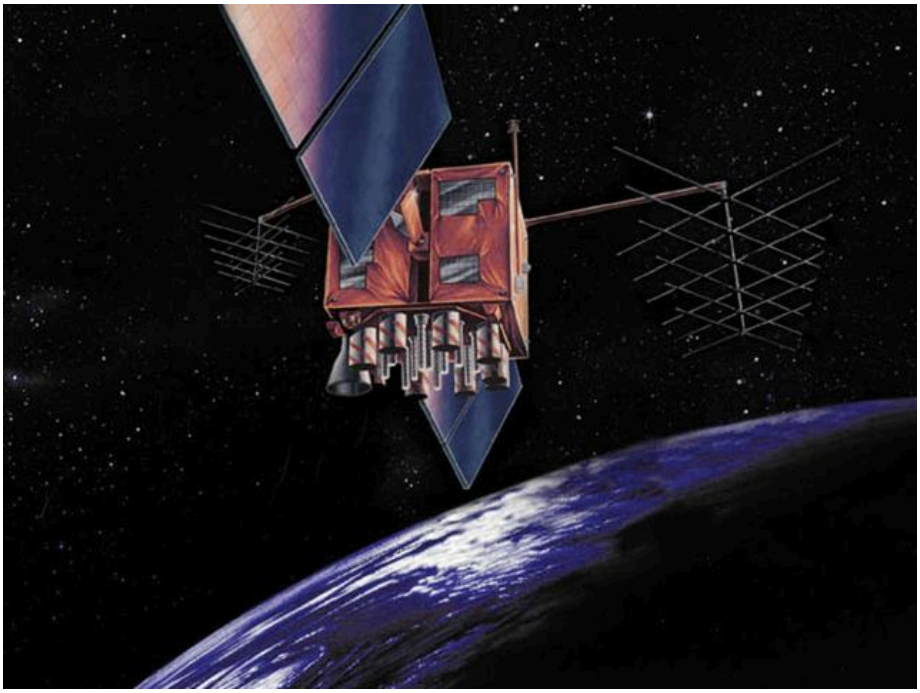
Our Nation's GPS Platform is Facing Significant Threats

Critical Infrastructure Protection drew much strategic attention after the terrorist attacks on September 11th, 2001. The priority at that time was to protect our critical infrastructure from terrorist attacks. Twenty-five years later, elements of our nation's critical infrastructure,specifically our nation's Global Positioning System (GPS) platform and the systems underpinning its core capabilities,face new threats. Those threats include benign neglect, jamming/spoofing, competing Department of Defense priorities and foreign governments' operations of superior systems.



Congress has seen the value of GPS and has acted accordingly.

In March of 2026, 10 USC 2281: Global Positioning System took effect. The law requires the Department of Defense (DOD) to support Military, *Civil, Commercial*, and *Scientific* users of GPS. It also states:

> "GPS makes significant contributions to safety and efficiency of transportation, and the economic growth, trade, and productivity of the United States."

A Global Collaboration — and a National Vulnerability

GPS and other Global Navigation Satellite Systems are critical to the global geospatial framework, and built with decades of cooperation among US, Russian, European, and Chinese governments. It depends on ground stations and satellite systems with infrastructure around the world.These systems are now **in urgent need of modernization**.

- **Aging infrastructure and competing priorities** — Nine of the 32 in-orbit GPS satellites have exceeded their design life and are "single string," meaning one failure could make them inoperable. The GPS satellite launched in 2026 was warehoused for two years waiting for launch priority. In 2024 and 2026 the US Space Force did not request funds to build new GPS satellites. The Department of Defence FY24 Authorization Request stated: "We are also delaying the purchase of additional GPS satellites" while claiming "The GPS constellation is healthy, with four satellites ready for launch". As with other electronic / mechanical devices, placing satellites in storage is not healthy. These robust satellites take two years to build.

  GPS ground stations and the necessary Very Long Baseline Interferometry (VLBI) equipment are falling into disrepair. VLBI measures radio signals from quasars located up to 30 billion light years away. Simultaneous readings taken with VLBI on different continents measure the position of the earth in space and the random wobble of the earth on its axis. Without these measurements we couldn't tell the earth's wobble from other movements such as plate tectonics ultimately degrading the accuracy of GPS.

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- **Growing threats** — Thousands of localized GPS **jamming and spoofing attempts** occur daily. In a Bloomberg news video, Shell CEO Wael Sawan warned that *"GPS jamming in the Strait of Hormuz is now threatening the world's energy markets."* (Bloomberg, Nov 2025)
- **Rising competition** — China has launched its own Satellite Laser Ranging program and announced it will **no longer share data**, eroding the cooperative global framework that ensures positional accuracy.
- **Threats on the spectrum** — In 2020, the FCC approved Ligado Networks to use a portion of the L-band spectrum for its terrestrial 5G network. This raised concerns about potential interference with commercial GPS receivers and those used by DOD and other federal agencies. In 2025, Ligado's move to allow a satellite company to access this spectrum reignited concerns. (General Aviation News)

Why GPS Matters

The Global Positioning System (GPS) is the invisible infrastructure that powers nearly every sector of the US economy, government operations and industry. It provides both *position* and *precise timing* that underpin:

- **Real-time location services** — navigation, logistics, and mapping
- **Transportation, including aviation safety** — on land, sea, rail, and in the air
- **Telecommunications** — cell calls, texts, and all wireless data rely on GPS timing
- **Financial systems** — stock trades and digital transactions are synchronized by GPS clocks

Our nation runs on GPS timing and spatial accuracy. **cannot afford even one day without it.**

Action Needed Now:

Pass the Weather Act Reauthorization (H.R. 5089)

The Weather Act Reauthorization supports the modernization and protection of these vital space-based systems that underpin the location and precision timing infrastructure that keeps our economy moving and our national security robust.

Without these investments:

- The **U.S. risks losing its global leadership** in GPS.
- We become **dependent on foreign competitors** for essential data and systems.
- A single failure could cause **massive disruptions** across all sectors.

Provide Congressional Oversight

DOD's responsibility under 10 USC 2281: Global Positioning System is clear. The law requires DOD to support Military, Civil, Commercial, and Scientific users of GPS.

Appropriate funds

Funding to build and launch new GPS satellites, maintain ground base stations and VLBI infrastructure, support NOAA activities, and mandate minimum staffing levels is critical to our nation's security and prosperity.
