



The Consolidated Appropriations Act for Fiscal Year 2022 (H.R. 2471) promotes robust positioning, navigation, and timing (PNT) technologies and preserves competition that drives innovation in the market.

Important Funding for PNT Services

The FY 2022 Appropriations Act, passed by the U.S. Congress and signed into law by President Biden on March 15, 2022, provides [\\$15 million](#) for the U.S. Department of Transportation (U.S. DOT) to establish a program that will support the U.S. Government's pursuit of many types of alternative PNT. The legislation aligns with U.S. DOT's January 2021 "[Complementary PNT and GPS Backup Technologies Demonstration Report](#)" and summarizes how the funding will be applied.

OPIA encourages U.S. DOT to apply this funding to procure alternative PNT services and supplementary solutions that will protect critical infrastructure. Our members are prepared to engage civil government officials and critical infrastructure owners and operators to match needs with solutions.

Critical Change to Existing PNT Law

The National Timing Resilience and Security Act of 2018 (NTRSA) focused attention on the need to reinforce GPS. Congress subsequently recognized that NTRSA would be harmful to the commercial PNT market. The FY 2022 Appropriations Act [revises](#) the NTRSA to align with the U.S. DOT's 2021 report that "the best strategy for achieving resilient PNT service is to pursue multiple technologies to promote diversity in the PNT functions that support transportation and other critical infrastructure sectors."

This straightforward change to the NTRSA is as follows: "Section 312(a) of title 49 United States Code, shall be amended by striking 'land-based,' after 'operation of a'." When the revised objective of the NTRSA is read in context, it is evident that the law is now fully inclusive of multiple forms of alternative PNT:

Subject to the availability of appropriations, the Secretary of Transportation shall provide for the establishment, sustainment, and operation of a ~~land-based~~, resilient, and reliable alternative timing system (1) to reduce critical dependencies and provide a complement to and backup for the timing component of the Global Positioning System (referred to in this section as "GPS"); and (2) to ensure the availability of uncorrupted and non-degraded timing signals for military and civilian users in the event that GPS timing signals are corrupted, degraded, unreliable, or otherwise unavailable.

This move by Congress comports with the findings of the U.S. DOT's report on PNT which state that "suitable and mature technologies are available in the private sector and offer owners and operators of critical infrastructure a diverse array of complementary PNT services to meet their GPS backup

ABOUT OPIA

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The Open PNT Industry Alliance is a coalition of manufacturers and service providers that have dedicated themselves to helping their customers back up GPS/GNSS by delivering alternative forms of positioning, navigation, and timing (PNT). Its mission is to promote open market concepts that preserve industry's long-term ability to harness its collective ingenuity to protect GPS/GNSS with multiple solutions that are technologically advanced, commercially viable, and based on a sustainable long-term funding framework.

needs. Because such needs are application-specific, GPS resilience across all critical infrastructure sectors will require a plurality of diverse PNT technologies to meet multiple use cases.”

The commonsense modification to the NTRSA allows multiple alternatives to GPS and other global navigation satellite systems (GNSS) to deliver against a complex and ever-expanding set of institutional and end-user requirements.

The alignment with OPIA’s bedrock principles is clear:

- A diverse technological landscape offers varied operational characteristics to support all critical infrastructure sectors.
- True resilience requires diversity that a sole-source technology cannot meet in terms of reliability, performance, and the flexibility to address evolving attack prevention and threat response needs.
- The ingenuity of the private sector marketplace will drive the emergence of multiple cost-effective GPS/GNSS alternatives that evolve according to technological innovations and market dynamics.

Open PNT Industry Alliance members provide what critical infrastructure needs for resilience: alternative forms of PNT that complement GPS/GNSS as well as augmentation services, security solutions, and hardware/software for time synchronization, navigation, and location applications.

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