



## OPEN PNT INDUSTRY ALLIANCE ENDORSEMENT OF U.S. DEPARTMENT OF TRANSPORTATION REPORT ON POSITIONING, NAVIGATION, AND TIMING (3-FEB-2021)

On January 14, 2021, the U.S. DOT published an in-depth report for Congress entitled [Complementary Positioning, Navigation, and Timing \(PNT\) and GPS Backup Technologies Demonstration Report](#) as required by the FY18 National Defense Authorization Act (NDAA). This report follows up a DOT-organized demonstration of 11 PNT providers that was conducted in March 2020. The technology demo was fair to all participants, the evaluation of the results was thorough, and the report itself is comprehensive, data-driven, accurate, and expertly written.

The release of the report is significant and timely because business publications, technology journals, and general media have reported with increasing frequency over the past few years about the importance of the Global Positioning System (GPS) in the United States and other global navigation satellite systems (GNSS) worldwide. The most recent example is a January 23, 2021, story in *The New York Times* entitled "[America Has a GPS Problem](#)," that articulates the United States' sweeping dependencies on GPS and some of the inherent vulnerabilities.

The members of the Open PNT Industry Alliance understand the threats and develop and deploy technologies that back up and augment GPS/GNSS to increase national resilience. The views of the coalition are aligned with the following seminal statement from the Conclusions and Recommendations section of DOT's new report (p. 194):

*"The demonstration indicates that there are suitable, mature, and commercially available technologies to backup or complement the timing services provided by GPS. However, the demonstration also indicates that none of the systems can universally backup the positioning and navigations capabilities provided by GPS and its augmentations. The critical infrastructure positioning and navigation requirements are so varied that function, application, and end-user specific positioning and navigation solutions are needed. **This necessitates a diverse universe of positioning and navigation technologies.**" (emphasis added)*

DOT's findings and guidance are consistent with these core principles of the Open PNT Industry Alliance:

- The technological landscape is diverse enough to allow multiple alternatives to GPS/GNSS with varied operational characteristics to deliver against a complex and ever-expanding set of customer requirements.
- True resilience requires the widest possible diversity, meaning that a singular sole-source technology will not only fail to meet the need in terms of reliability and performance but also be unable to evolve the optimal attack prevention and threat response capabilities.
- The ingenuity of the private sector, spurred by competition and public and private investment, will drive the emergence of multiple cost-effective GPS/GNSS alternatives that evolve according to technological innovations and market dynamics. Similarly, unbridled innovation will address new and still evolving use cases not supported by GPS/GNSS.

Now that the long-awaited report is complete and the primary conclusions are clear, **DOT is in an excellent position to strengthen economic and national security by supporting U.S. Government efforts to accelerate the implementation of many types of backup PNT capabilities for critical infrastructure.**

We encourage government and business leaders to take steps now to adopt alternative PNT for civil and commercial applications. **The market has several innovative technologies and multiple forms of PNT that can meet the wide-ranging performance specifications and operational requirements of critical infrastructure owners and operators.**

### ABOUT OPIA

*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.*