

Resiliency of the Global Positioning System (GPS)

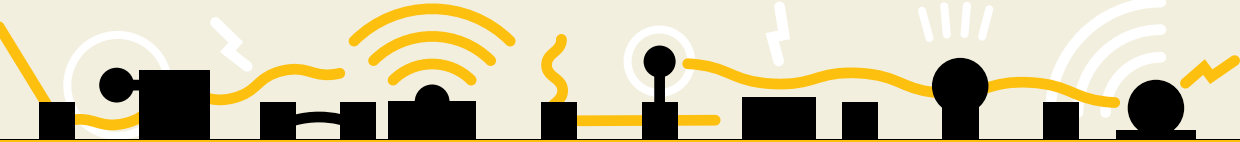


GPS is a U.S. government owned and operated network of satellites that provide precise position, navigation, and timing (PNT) information to military and civilian users all over the world.

GPS receivers are susceptible to disruption and interference, including jamming and spoofing attacks. **The need for reliable sources of PNT is more important now than ever.**

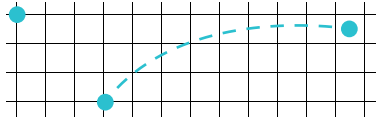
The FY2018 National Defense Authorization Act gave authority to the **U.S. DOT**, the **Department of Defense**, and the **Department of Homeland Security** to conduct demonstrations of GPS Backup/Complementary PNT.

In support of and collaboration with the **Office of the Assistant Secretary for Research and Technology** and the **U.S. Space Force's Space and Missile Systems Command**, the Volpe Center conducted demonstrations of 11 vendor technologies that might provide a backup in the event of a GPS outage or disruption.



WHAT TECHNOLOGY IS BEING DEMONSTRATED?

Sends **positioning** and/or **timing** information



At a **technical readiness** level of 6 or higher



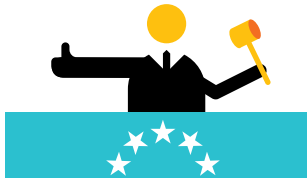
Independent from GPS/Global Navigation Satellite System



Able to **interface** with the U.S. government's data collection



Meets **regulatory compliance** and without licensing restrictions



Must not produce information that threatens **national and economic security**

