



October 9, 2023

Mid-Ohio Regional Planning Commission SMART Grant Proposal: Position, Navigation and Timing (PNT) Resiliency for Vehicles in GPS Degraded Environments

To:

The Honorable Pete Buttigieg

Secretary

United States Department of Transportation

1200 New Jersey Avenue SE

Washington, DC 20590

Dear Secretary Buttigieg,

NextNav, a leader in resilient GPS, is committed to supporting the Mid-Ohio Regional Planning Commission (MORPC) and partnering with Ohio State University on the SMART Grant Proposal "Position, Navigation and Timing (PNT) Resiliency for Vehicles in GPS degraded environments". For more than fifteen years, NextNav has been focused on solving the challenges of GPS, specifically in GPS-degraded environments, and has deep engineering expertise in resilient PNT. The demonstration of a vehicular system with GPS equivalent functionality amidst GPS cyberthreats and interference (particularly in urban areas) will deliver extensive knowledge and information to further the safety of connected and autonomous vehicles, and will build on much of the work that NextNav has already done with resilient PNT systems and network deployment (including at both NASA Langley and NASA Ames for drone testing).

NextNav will offer the following services:

- Engineering and technical expertise for network deployment and operation
- Data gathering and analysis, in partnership with OSU
- Knowledge sharing from the network design, deployment and initial operation, including publishing a report with on vehicle positioning accuracy with a resilient PNT system integrated with inertial sensors in GPS-denied scenarios

NextNav's TerraPoiNT system has undergone extensive federal government testing, including by the DOT and the DHS. Through this SMART grant, the knowledge gained will further improve connected vehicle safety, both from cybersecurity threats and from general GPS interference in urban areas where GPS is vulnerable. All results will be aligned with the 2023 DOT Complementary Action Plan and with MORPC's Vision Zero Action Plan to eliminate traffic fatalities. Further, the demonstration network will be deployed in an urban area of Columbus - representative of other urban centers in the country - so the results will be replicable elsewhere.

NextNav looks forward to supporting MORPC and working with Ohio State University and the Department of Transportation on these initiatives. Thank you for your consideration.

Sincerely,


Ganesh Pattabiraman, Chief Executive Officer