



Billing Code 4910-9X

DEPARTMENT OF TRANSPORTATION

Office of the Secretary of Transportation

[DOT-OST-2019-0051]

Demonstration of Backup and Complementary Positioning, Navigation, and Timing (PNT)

Capabilities of Global Positioning System (GPS)

AGENCY: Office of the Secretary (OST), U.S. Department of Transportation (DOT).

ACTION: Request for information (RFI).

SUMMARY

The U.S. Department of Transportation (DOT) is planning to conduct a field demonstration of technologies with a Technology Readiness Level (TRL) of six or higher, as described in the Federal Highway Administration *Technology Readiness Level Guidebook*¹, that are capable of providing backup positioning, navigation, and/or timing services to critical infrastructure (CI) in the event of a temporary disruption to GPS. This demonstration effort also is expected to encompass technologies capable of providing complementary PNT functions to GPS by either expanding PNT capabilities, including cross checks, or extending them to GPS or Global Navigation Satellite System (GNSS)-denied or degraded user environments. DOT is issuing this Request for Information (RFI) to seek levels of interest and additional information from PNT technology vendors on participation in the demonstration. The information requested can be found in the supplemental information section of this RFI.

¹ Federal Highway Administration Exploratory Advanced Research Program *Technology Readiness Level Guidebook*, FHWA-HRT-17-047, September 2017.

DATES: Responses should be filed by [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN FEDERAL REGISTER].

ADDRESSES: You may file responses identified by the docket number DOT-OST-2019-0051 by any of the following methods:

- Federal Rulemaking Portal: go to <http://www.regulations.gov> and follow the online instructions for submitting comments.
- Mail: Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Ave., SE, West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.
- Hand Delivery or Courier: West Building Ground Floor, Room W12-140, 1200 New Jersey Ave., SE, between 9:00 a.m. and 5:00 p.m. ET, Monday through Friday, except Federal holidays.
- Fax: (202) 493-2251

Instructions: You must include the agency name and docket number DOT-OST-2019-0051 at the beginning of your submission. All submissions received will be posted without change to <http://www.regulations.gov>, including any personal information provided, unless proprietary and other sensitive information is so marked with requested disposition instructions.

Privacy Act: Anyone is able to search the electronic form of all submissions received in any of our dockets by the name of the individual submitting the document (or signing the submission, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's

complete Privacy Act statement in the Federal Register published on April 11, 2000 (65 FR 19477-78), or you may visit <http://DocketsInfo.dot.gov>.

Docket: For access to the docket and comments received, go to <http://www.regulations.gov> or to the street address listed above. Follow the online instructions for accessing the docket.

FOR FURTHER INFORMATION CONTACT: Karen L. Van Dyke, Director, Positioning, Navigation, and Timing & Spectrum Management, Office of the Assistant Secretary for Research and Technology, U.S. Department of Transportation, 1200 New Jersey Ave., SE., Washington, DC, 20590, 202-366-3180, karen.vandyke@dot.gov.

SUPPLEMENTAL INFORMATION:

1. Overview

As a co-chair and member of the National Executive Committee for Space-based PNT, a provider and user of U.S. critical infrastructure (CI) services, and as the lead civil agency for PNT in the Federal Government, DOT is interested in leveraging PNT service technology initiatives currently being undertaken by industry.

Section 1606 of the National Defense Authorization Act for Fiscal Year 2018 (P.L. 115-91), directed the Secretary of Defense, the Secretary of Transportation, and the Secretary of Homeland Security to jointly develop a plan for carrying out a backup GPS capability and complementary PNT demonstration.

This RFI outlines the information requested for DOT, in coordination with the Department of Homeland Security and Department of Defense, to conduct a demonstration of

candidate technologies capable of serving as a backup and/or complement to GPS in order to ensure resilient PNT services for U.S. CI operations.

2. Technical Information

DOT is seeking the following information from technology vendors for the purpose of conducting a successful demonstration, and to develop an efficient schedule for scenario development, deployment of demonstration systems, and completion of data collection and analysis. The respondents are being asked to provide the information below with respect to their proposed PNT backup technology(ies), and may also provide supplemental information that they believe to be relevant to a successful demonstration if they so choose. The information requested consists of the following:

1. A description of the technology(ies) and CI application(s), including cybersecurity and other security measures inherent in the system, and if the technology(ies) is/are for timing only, location only, or both timing and location.
2. Identify the TRL for the proposed technology(ies).
3. Identify whether the vendor is willing to participate in the demonstration by providing material (hardware and user equipment when applicable), engineering (technology deployment, configuration, and data collection support), and logistical support during the preparation and execution phases of the demonstration.
4. Identify whether this support is contingent on the government providing some funding.
5. Provide information about the needed infrastructure (e.g. power, network, etc.) that would be necessary to deploy the vendor technology(ies) at a DOT-furnished demonstration site.

6. Identify any constraints on participation, e.g. lead-time, demonstration timelines, funding, infrastructure (HVAC, power, shelter, and equipment space, etc.).
7. Identify radiofrequency bands and transmit power levels in terms of peak Effective Isotropic Radiated Power (EIRP). This is needed during the planning phase depending on the selected demonstration site(s).
8. Identify where the technology(ies) is/are currently deployed and in use, if applicable. Provide location, date of deployment, and if the deployment is available for examination.

Abbreviations should be defined either on first use or in a glossary. Charts and graphics should have quantitative data clearly labeled. Assumptions should be clearly identified. Proprietary and other sensitive information should be so marked with requested disposition instructions. Submitted responses shall be UNCLASSIFIED unless prior arrangements are made with the Contracting Office. Submitted materials will not be returned.

Responses are limited to fifteen (15) 8.5" x 11" pages with 1" margins, and 12-point font (Arial or Times New Roman), including any appendices and other supporting materials. Pages must be numbered and submitted electronically via e-mail as Microsoft Word or Adobe Acrobat files. Please send responses to the contact information provided in the For Further Information Contact section of the notice.

DOT will be developing a demonstration plan taking into consideration the information received pursuant to responses received under this RFI. This is an RFI only. This request is for planning purposes, and shall not be construed as a solicitation announcement, invitation for bids, request for proposals, quotes or an indication that the Government will contract for the items contained in this notice.

Additionally, responses will be treated only as information for the Government to consider. Respondents will not be entitled to payment for direct or indirect costs that are incurred in responding to this RFI. Further, this request does not constitute a solicitation for proposals or the authority to enter into negotiations to award a contract. Interested parties are responsible for adequately marking proprietary, restricted or competition sensitive information contained in their responses.

Issued This Day of April 29, 2019, In Washington, D.C.

Diana Furchtgott-Roth,
Deputy Assistant Secretary for Research and Technology,
U.S. Department of Transportation.

[FR Doc. 2019-09092 Filed: 5/2/2019 8:45 am; Publication Date: 5/3/2019]