

Request for Information

The North/West Passage Corridor Coalition (NWP) is a multi-state operations-focused partnership among the states of Idaho, Minnesota, Montana, North Dakota, South Dakota, Washington, and Wyoming. These states are crossed by major passenger and commercial vehicle highway corridors Interstates 90 and 94. Recognizing the value of coordinated, cross-border collaboration, Minnesota initiated a meeting in 2002 with representatives from each of the states within the corridor. The group established itself as a Transportation Pooled Fund in 2003 through the Federal Highway Administration (FHWA). The vision of the North/West Passage Corridor is to develop effective methods for sharing, coordinating, and integrating traveler information and operational activities across state and provincial borders.

Request for Information: Multistate Demonstration of Truck Platooning and/or Related Connected and Automated Trucking Technologies

The purpose of this Request for Information (RFI) is to solicit information to identify parties who may be interested in collaborating with the North/West Passage Corridor Coalition (NWP) to conduct a multi-state demonstration of truck platooning and/or other connected and automated trucking technologies. According to the Federal Motor Carrier Safety Administration (FMCSA), truck platooning is the coordinated operation of two or more trucks via cooperative adaptive cruise control (CACC). With CACC, the lead truck is wirelessly connected to following trucks and sending messages that affect throttle, brakes, and brake lights (longitudinal control) with drivers still behind the wheel to steer and identify hazards (lateral control). In summary, truck platooning is the linking of two or more trucks using connected technologies and automated driving supported systems, allowing for closely spaced operations between vehicles. Following at close distance reduces the aerodynamic drag of the trucks in the platoon, reducing fuel consumption and vehicle emissions.

Project Background

The NWP's Freight Task Force (Task Force) is interested in truck platooning and other forms of connected and automated trucking technologies and has conducted research to learn more about the topic and explore its relevance to the NWP.

Project Scope

The Task Force encourages interested parties to propose a demonstration that meets their own goals and objectives while also evaluating the following aspects of truck platooning and/or other forms of connected and automated trucking technologies:

- Overcoming multi-state barriers and facilitating multi-state coordination for a multi-state platoon demonstration.
- Field testing of connected and automated trucking technologies which could include:
 - favorable or adverse weather conditions (including wind, rain, snow, and fog)
 - urban or rural environments
 - areas of high or low visibility
 - challenging geographies (including mountainous terrain)
- Testing operation of varied configurations (such as three-truck platoons or truck combinations with double trailers)

- Intermodal integration with deep-water ports
- Commercial vehicle service applications such as truck parking, EV charging infrastructure, and/or overweight permitting

A platooning demonstration in the NWP would give trucking companies and research or educational institutions the opportunity to evaluate the business case for platooning or other forms of connected and automated trucking over a large area and long periods of time and in multiple types of terrain and weather conditions. The NWP states will seek grant opportunities to support this effort.

The Interstate corridors that traverse the region are shown in Figure A-1.



Figure A-1: Key Regional Corridors

Source: CPCS

Respondents may propose on any configuration of Interstate corridors that includes at least three of the seven states within the NWP region. Any proposed route that meets this requirement will be considered.

Enabling Environment

Each state within the region has its own regulations and policies relating to truck platoons and the testing of connected and autonomous trucking technologies. Figure A-2 summarizes for each state whether a prior demonstration has been conducted and if there are known legislative barriers to a demonstration in the state. This figure does not indicate whether truck platoons or other technologies can be fully deployed in a state. Several states in the region have already had demonstrations of these technologies within their borders. All states within the NWP are committed to working with potential Respondents to resolve any potential or perceived barriers.

Testing of Platooning **No Potential Legislative Barriers** State **Technologies Conducted** Identified for Demonstration of Truck **Platooning Technologies Previously** Washington **√** Idaho √ Montana **√** Wyoming **North Dakota** ✓ South Dakota Minnesota

Figure A-2: Summary of NWP Platoon Technology Testing/Demonstration Environment

Information Requested

The Task Force seeks to improve its understanding of platoon operations and challenges to platoon demonstrations and is open to partnering on testing platooning and/or other connected and automated trucking partnership opportunities. Respondents should describe their vision for conducting a multistate demonstration in their submission. The following topics can be used by interested parties as a starting point to structure their responses:

- **Technical Capabilities.** Respondents should provide information on the platooning and/or other connected or automated trucking technologies to be tested as part of the demonstration.
- Safety Considerations. Respondents should describe how their systems are intended to keep both truckers and other roadway users safe during platoon operations.
- Partnerships. Respondents are encouraged to introduce potential partners such as technology companies, commercial vehicle operators, and research institutions and briefly describe the proposed roles of the team.
- Prior Experience. Respondents should list and briefly describe any prior demonstrations and collaborators.
- Demonstration Plan. Respondents should describe the proposed approach to a demonstration, including potential locations, duration and timeline, and what the Respondent hopes to accomplish and test with the demonstration.
- Public Partner Support. Respondents should describe needed support or assistance from public partners or any areas of potential roadblocks, including policy or regulatory impediments, to ensure a successful effort.
- Media Coverage. Respondents can speak to the level of media coverage that would be permissible as well as any procedures related to media relations during the demonstration.

Submission Requirements

In submitting a response to this RFI, the Respondent acknowledges that this is a Request for Information only. It does not constitute a Request for Proposal (RFP) or the promise to issue an RFP in the future. This RFI does not commit NWP to contract for any future service. All costs associated with responding to this RFI will be solely at the Respondent's expense.

The responses to this RFI will be shared among the NWP member states. Respondents are advised not to include trade secrets within their submittals or other correspondence related to this RFI. Please keep submissions to the desired 10-page limit.

All responses must be emailed as PDF or Word documents to:

Dave Huft, Chair, North/West Passage Freight Task Force dave.huft@state.sd.us

Any questions regarding the RFI may also be sent to the address above.

Responses are due no later than 7:00 pm CST April 30, 2021.