

PennDOT Automated Vehicle Location (AVL) System Pilot

PennDOT began a pilot including 119 plow trucks in 2014-15 with the Automated Vehicle Location (AVL) system, which uses in-truck technology to log and share data in real-time for that truck. The AVL unit in each truck sends a cellular signal through the system showing where a truck is located and whether or how much material is being spread from the truck.

This winter, 516 PennDOT dump trucks and 212 contracted rental trucks on interstates and expressways across the state will have the technology installed. Statewide, PennDOT has 2,200 total department-force trucks and also rents approximately 270 trucks and their operators to maintain the more than 40,000 miles of roadway for which PennDOT is responsible.

PennDOT will use AVL to:

- Monitor vehicle movement and plow-route coverage.
- Monitor the system during winter storms or emergencies and, if needed, see the closest truck to an area that needs additional service and direct trucks to that location.
- Review data on effectiveness in returning traffic to pre-storm conditions.
- Review usage of materials such as salt and anti-skid through the various stages of a weather event.
- Interface with other department technology to combine real-time weather and road conditions with corresponding material-usage rates.

The AVL system pilot is part of Governor Wolf's GO-TIME initiative that leverages inter-agency coordination and collaboration to maximize efficiency, modernize state government operations, and provide the highest quality services. The pilot, as one of seven GO-TIME projects identified by PennDOT in 2016-2017, is expected to realize a cost savings of \$1.4 million over the next four to six years based on a combination of reduced salt usage and better use of department equipment.

PennDOT plans to make the AVL data available to the public later this year through its traveler information website, www.511PA.com.

What the public can expect from AVL:

- This winter AVL will only be installed on interstate and expressway trucks, and these installations will occur throughout the winter.
- Trucks with AVL installed will not be the only trucks servicing these routes. Especially during storms, trucks are routinely rerouted from other plow routes to assist with conditions on heavily traveled roadways. For that reason, the plow viewer will not show every truck on a roadway.
- In addition, if a truck with AVL installed is off the road for service, it is replaced with another vehicle that will not have AVL installed, but the route is still receiving service.