

## State Planning and Research Program Quarterly Report

**PROJECT TITLE:** Utilization of AVL/GPS Technology: Case Studies

**OBJECTIVES:** The goal of this project is to help state DOTs make more informed decisions with respect to implementation of AVL/GPS technology for winter maintenance. Much is known about what winter maintenance AVL/GPS technologies are available from different vendors as well as which highway agencies are making use of them. Highway agencies will significantly benefit from a deeper examination of winter maintenance AVL/GPS implementation. Detailed agency case studies developed in this project will bring to light more nuanced issues related to winter maintenance AVL/GPS. The project will highlight the types of issues that agencies should consider, provide guidance for successful implementation, and serve as possible templates for agencies to get the best value out of different levels of AVL/GPS applications.

**PERIOD COVERED:** July 1, 2017 – September 30, 2017

**PARTICIPATING AGENCIES:**

Minnesota Department of Transportation and the Clear Roads Technical Advisory Committee

**PROJECT MANAGER:**

Debra Fick/ Tom Peters

**LEAD AGENCY:** Mn/DOT

**PRINCIPAL INVESTIGATOR:**

Ming-Shiun Lee, PhD, PE

**SP&R PROJECT NO:**

MnDOT Contract No.  
1026092

Federal Project Number:  
TPF-5(218)

**PROJECT IS:**

Planning  
 Research & Development

**ANNUAL BUDGET:** \$113,697.53 (Project Budget)

**PROJECT EXPENDITURES TO DATE:** \$26,808.62

**WORK COMPLETED:**

- Task 1: Literature Search (100% complete) – The consultant team conducted literature search and review. A literature summary report was delivered and approved in April 2017.
- Task 2: Survey (100% complete) – The consultant team developed survey questions and design. An online survey was subsequently conducted. Results were analyzed and summarized.
- Task 3: Interviews and Case Studies (30% complete) – Based on the survey results, the consultant team developed a method to select the candidate states for case studies, and subsequently made recommendations. Initial contacts to the agencies selected for case study interviewed were made. The development of interview questions has been initiated.

**SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:**

- Task 3: Interviews and Case Studies – The consultant team will develop a list of interview questions and visit agencies for on-site interviews. Interview summaries and draft case study reports will be developed.

**STATUS AND COMPLETION DATE:**

The project is on schedule and on budget and will be completed by July 31, 2018.