

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: April 1, 2017 – June 30, 2017

PARTICIPATING AGENCIES: Minnesota Department of Transportation and the Clear Roads Technical Advisory Committee

PROJECT MANAGER:

Debra Fick/ Tom Peters

SP&R PROJECT NO:

MnDOT Contract No.
1026092

PROJECT IS:

Planning
 Research & Development

LEAD AGENCY: Mn/DOT

Federal Project Number:
TPF-5(218)

PRINCIPAL INVESTIGATOR:

Ming-Shiun Lee, PhD, PE

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

PROJECT EXPENDITURES TO DATE: \$14,328.28

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 (90% complete) – The consultant team developed survey questions and design. An online survey was subsequently conducted. Preliminary results were analyzed and summarized.
- Task 3: Interviews and Case Studies (7% complete) – Based on the survey results, the consultant team worked on identifying criteria and developing a method to select the candidate states for case studies.

SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:

- Task 2: Survey – Survey responses will be analyzed and summarized.
- Task 3: Interviews and Case Studies – Criteria and methodology for selecting candidate case study agencies will be developed. Recommendations on case study agencies will be developed. The consultant team will also develop a list of interview questions and contact agencies to schedule for on-site interviews.

STATUS AND COMPLETION DATE:

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