

State of Wisconsin/Department of Transportation
RESEARCH PROGRESS REPORT FOR THE QUARTER ENDING: September 30, 2005

Program: SPR-0010(36) FFY99	Part: II Research and Development
Project Title: Vehicle Classification from Single Loop Detectors	Project ID: 05-02
Administrative Contact: Nina McLawhorn	Sponsor: MRUTC
WisDOT Technical Contact: Jason Bittner	Approved Starting Date:
Approved by COR/Steering Committee:	Approved Ending Date:
Project Investigator (agency & contact): Ohio State University, Benjamin Coifman	

Description: The goal of this research is to utilize the advances in velocity and length estimation from single loop detectors to develop a vehicle classification methodology. It is envisioned that the classification work will also improve length-based classification at dual loop detectors. The research promises to extend vehicle classification to existing stations using only single loop detectors and offers viable options in the event that one of the loops in a dual loop detector fails.

- Task 1: Meet with ODOT engineers and potentially teleconference with other state departments of transportation (DOT's) in the MRUTC to establish properties of existing classification systems and desired properties of the classification system, e.g., number of bins and length thresholds between bins.
- Task 2: Collect additional detector data. Particular emphasis will be on stations with significant truck demand. Each location will need an external measure for verification. ODOT will be the primary source to log individual vehicle data from several of their stations. The researchers will collect concurrent video at several stations to manually verify the vehicle class.
- Task 3: Develop and test the single loop detector classification against the Weigh in Motion or axle classification. In parallel, the researchers will further improve the length estimation techniques from single loop detectors.
- Task 4: Use the manually extracted vehicle class from video to verify the methodology.
- Task 5: Work with ODOT and other state DOT's to deploy the resulting length-based classification methodology for single loop detectors.

Total study budget	Current FFY budget	Expenditures for current quarter	Total Expenditures to date	Percent Complete
\$39,998	\$39,998	\$0	\$0	0

Progress This Quarter:

(Includes project committee mtgs, work plan status, contract status, significant progress, etc.)

All of the paperwork was finally completed this quarter and the funding became available at the end of September.

Work Next Quarter:

Work will begin on the tasks as per the relative time line in the proposal from October 1, 2005.

Circumstances affecting progress/budget:

The original proposal consisted of two companion proposals submitted, each approximately \$20,000, submitted independently to MRUTC and ODOT, with the remaining funds and matching coming from OSU. It took considerably longer for the red tape to be worked through than anticipated.

