

UTC Project Information	
Project Title	Documenting and Determining Distributions, Trends, and Relations in Truck Times at International Border Crossing Facilities
University	NEXTRANS The Ohio State University
Principal Investigator	Mark R. McCord, Professor, Civil, Environmental, and Geodetic Engineering, The Ohio State University,
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Funding Source(s) and Amounts Provided (by each agency or organization)	\$150,000 CEVA Logistics \$10,000 Michigan Tech Research Institute \$13,500 OSU \$138,000 NEXTRANS
Total Project Cost	\$311,111
Agency ID or Contract Number	DTRT12-G-UTC05
Start and End Dates	10-01-2015
Brief Description of Research Project	In a separate project, we previously developed a geo-fence based approach to capture the times trucks incur in various activities associated with crossing an international border. We collaborated with a large freight hauler (CEVA Logistics) that regularly traverses the Ambassador Bridge (AMB) and Blue Water Bridge (BWB) international border crossing facilities to implement the approach on its trucks, to determine times for activities of interest to CEVA at the facilities (e.g., time-of-day and day-of-week patterns in overall crossing times, time spent in duty free facilities), and to use the CEVA trucks as probe vehicles to determine general truck activity times of interest to planners and operators (e.g., overall crossing times, queuing times, inspection times). Validation studies supported the results obtained. In prior NEXTRANS projects, we continued to collect data and produce summary statistics. In addition to providing “snapshot” summaries of truck activity times, the extensive dataset we have now compiled can allow unique longitudinal analysis of crossing time activities and estimation of model-based associations of times incurred in activities with other, explanatory variables. Although there were some sporadic efforts in the past to

	<p>determine truck times at the busy and valuable AMB and BWB border crossing facilities, ours are the only data that have been collected on an ongoing basis and with great spatial detail. The Michigan Department of Transportation (MDOT) is now planning to implement a system to provide real-time information on wait times at the publicly owned and operated BWB facility. However, MDOT is not implementing a system at the busier, but privately owned and operated AMB facility. In addition, MDOT has not presently devoted funding to conduct off-line analysis of temporal patterns in the wait times. In this project, we would continue to collect and process data to provide updated summary statistics of crossing time activities at the AMB and BWB facilities, develop and interpret longitudinal and relational models of important activity times, complement MDOT efforts, and continue to develop stakeholders.</p>
<p>Describe Implementation of Research Outcomes (or why not implemented)</p> <p>Place Any Photos Here</p>	
<p>Impacts/Benefits of Implementation (actual, not anticipated)</p>	

Web Links

- Reports
- Project website