

UTC Project Information	
Project Title	Roadway Traffic Data Collection from Mobile Platforms
University	The Ohio State University
Principal Investigator	Mark R. McCord The Ohio State University Department of Civil, Environmental, and Geodetic Engineering
PI Contact Information	mccord.2@osu.edu
Funding Source(s) and Amounts Provided (by each agency or organization)	\$77,004 NEXTRANS / USDOT \$77,004 The Ohio State University
Total Project Cost	\$154,008
Agency ID or Contract Number	DTRT12-G-UTC05
Start and End Dates	July 2015 - Dec 2016
Brief Abstract of Research Project	<p>Data were manually collected from The Ohio State University transit buses in regular operation. The average flow rates estimated for the same roadway segments determined from data manually collected from buses operating on different bus routes for the same time-of-day period are found to be much more similar than the estimates for the same roadway segments determined from data collected in different time-of-day periods or different academic terms. Moreover, the differences in the estimates for the different time-of-day periods correspond to known commuting traffic patterns (greater inbound flows in the morning, larger outbound flows in the afternoon), and the differences for the different academic terms correspond to known traffic activity (less traffic in the Summer term than in the Spring term)</p> <p>Flows were also collected from LiDAR and video sensors mounted on a van that traversed several of the same segments traversed by the transit buses. The LiDAR data were automatically transformed into vehicle counts and times. Software was developed to allow individuals watching the video recordings in a playback mode to click to record locations and times of vehicle detections. These data were then transformed to input values for use with the modified moving observer method to estimate traffic flows. Since the raw LiDAR and video data are recorded simultaneously from the van, they record the same vehicles. Therefore, the differences in flows estimated from the LiDAR and video data would be expected to be smaller than the differences in flows estimated from data manually collected from the buses. The magnitudes of the relative differences between average flows estimated from the LiDAR and video data are, indeed, much smaller than the magnitudes of the relative differences between flows estimated from buses in different time-of-day periods and different academic terms.</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>	
<p>Web Links</p> <ul style="list-style-type: none">• Reports• Project website	