

<b>UTC Project Information</b>	
Project Title	MPC-600 – Developing a Prototype System for Establishing Passing and No-Passing Zones of Two-Lane Highways
University	University of Wyoming
Principal Investigator	Khaled Ksaibati, Ph.D., P.E. Ahmed Farid, Ph.D. Suresh Muknahallipatna, Ph.D. Victor Bershinsky, P.E.
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Funding Source(s) and Amounts Provided (by each agency or organization)	<p>USDOT, Research and Innovative Technology Administration \$109,472</p> <p>Wyoming Department of Transportation \$171,899</p>
Total Project Cost	\$281,371
Agency ID or Contract Number	69A3551747108
Start and End Dates	April 16, 2019 to July 31, 2024

<p>Brief Description of Research Project</p>	<p>The Wyoming Department of Transportation (WYDOT) implements the two-vehicle method to measure passing sight distances on Wyoming’s two-lane roads comprising thousands of miles in order to establish passing and no-passing zones. However, the apparatus used to conduct the method is no longer functional. Therefore, WYDOT and local jurisdictions in Wyoming are in dire need of a functional, advanced, accurate, cost-effective, easy-to-use, durable, upgradable system to conduct the method. It is essential that the system be accurate because WYDOT is continuously establishing the zones statewide and establishing the zones is costly. With the advanced system, WYDOT will also be able to evaluate existing zone designs. WYDOT is not only establishing zones statewide but also re-establishing the zones due to changes in speed limits, construction or placement of sight obstructions near horizontal curves, roadway re-alignment, crashes, complaints from citizens and other reasons. Hence, the aim of the project is to provide WYDOT with two state-of-the-art prototypes of the two-vehicle method with all advanced intelligent transportation system (ITS) features. One functional prototype, Prototype 1, will be developed, tested at multiple locations and provided to WYDOT while the other, Prototype 2, with all the cutting-edge ITS features, is being developed. Once Prototype 2 is fully developed and tested it will be provided to WYDOT and Prototype 1 will be retrieved for upgrading. Prototype 1 will be enhanced by incorporating the advanced ITS features and tested before being provided to WYDOT once more. The prototypes’ manuals will be provided to WYDOT as well.</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"> <li>• Reports</li> <li>• Project Website</li> </ul>	<ul style="list-style-type: none"> <li>• Journal Paper – <a href="#">Estimating Passing Sight Distances for Overtaking Truck Platoons – Calibration and Validation Using VISSIM</a></li> <li>• Journal Paper – <a href="#">Two-Lane Highway Crash Severities: Correlated Random Parameters Modeling Versus Incorporating Interaction Effects</a></li> <li>• Journal Paper – <a href="#">Introducing a New Apparatus for Designating Two-Lane Highway Passing and No-Passing Zones</a></li> <li>• Journal Paper – <a href="#">Modeling Two-Lane Highway Passing-Related Crashes Using Mixed Ordinal Probit Regression</a></li> </ul>