

<b>UTC Project Information</b>	
Project Title	MPC-665 – Remote Sensing of Transportation Assets Using Drones and Artificial Intelligence
University	North Dakota State University
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Funding Source(s) and Amounts Provided (by each agency or organization)	<p>USDOT, Office of the Assistant Secretary for Research and Technology \$183,000</p> <p>North Dakota State University \$183,000</p>
Total Project Cost	\$366,000
Agency ID or Contract Number	69A3551747108
Start and End Dates	September 17, 2021 to July 31, 2023
Brief Description of Research Project	<p>The rapid acquisition, processing, and visualization of data can enhance the effectiveness of transportation planning, traffic operations, and incident response. Hence, agencies can benefit from data sensed remotely from transportation assets like roads, bridges, railroads, pipelines, freight yards, rights-of-way, and other essential assets such as signs and signals. So far, however, the remote sensing of transportation assets has been based primarily on satellite images, video, or photography from manned aircrafts. The commercial development of unmanned aircraft systems, commonly called drones, can enable remote sensing with many advantages because drones can generate more information, faster, at lower cost, and more safely. The intersection of artificial intelligence (AI) methods and sensor packages can further enhance those advantages. Therefore, the goal of this research is to distill and identify essential characteristics at the intersection of drones, sensors, and AI methods to advance applications in the remote sensing of transportation assets.</p>

Describe Implementation of Research Outcomes (or why not implemented)  Place Any Photos Here	
Impacts/Benefits of Implementation (actual, not anticipated)	
Web Links <ul style="list-style-type: none"><li>• Reports</li><li>• Project Website</li></ul>	