



Cross Country Dataset for ADS-Equipped Trucks

PROBLEM

Despite a consensus that interstate highway freight is one of the most promising applications for automated driving system (ADS) technologies, there is a large knowledge gap regarding the ADS readiness of the nation’s highway infrastructure and other key metrics for autonomous truck deployments. As a result policymakers, ADS developers, and others have been left guessing or relying on secondary and/or private data to make decisions about where to pilot ADS trucking projects and the infrastructure improvements required for full implementations.

OBJECTIVE

Virginia Tech Transportation Institute (VTTI) in partnership with Pronto, a leading truck ADS developer, are building a first of its kind nationwide dataset for truck ADS deployments. The metrics are of relevance for all road users but are collected and presented as “perceived” by an ADS system that drives the relevant stretch of highway. They include:





 Road quality	 LTE connectivity
 GPS coverage	 ADS video library

Figure 1. ADS-system key metrics

PROGRESS & NEXT STEPS

In late 2021, Pronto deployed a vehicle equipped with autonomous technology to collect an initial dataset. This was the first step in what is an ongoing project that will cover most of the nation’s major freight routes. Prototype interactive maps with initial scores for several of the key metrics were presented at the ITS America conference in December 2021. They represent an opportunity for deeper understanding, greater transparency, data-driven decision making, and informed dialogue by policymakers, industry practitioners, truck fleet operators, and the larger public around trucking ADS projects and related infrastructure priorities.

To stay abreast of the latest developments in this project and discuss opportunities to include freight routes of interest to you in this public dataset, please contact info@pronto.ai.

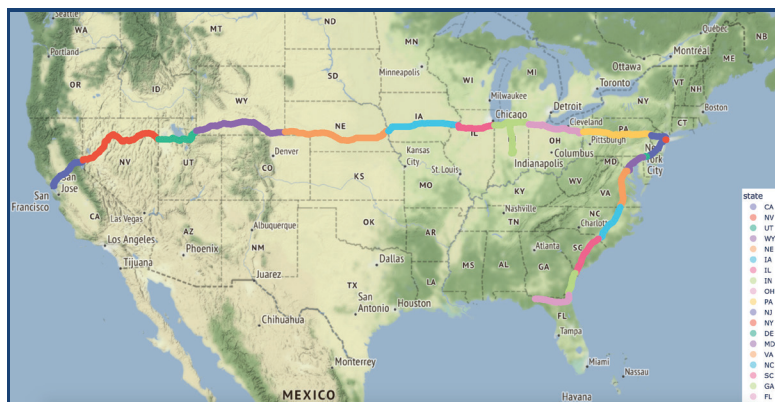


Figure 2. Pronto ADS-equipped truck cross-country deployment

