



Acquiring Travel Times and Speeds Using Probe Technology

After just three years, ten states are now receiving and using real-time data to power their 511 systems, provide travel times statewide and comply with the forthcoming interstate traffic monitoring requirements of 23 CFR 511. This is the result of the multi-state collaborative effort among the Coalition, University of Maryland and INRIX. Coverage is continuous from New Jersey to Florida.

Objective: The project's objective is develop and maintain a corridor wide traffic monitoring system to deliver travel times and speeds on freeways and arterials. Based on probe technology, the system aids member agencies in monitoring and managing their transportation network, providing accurate traffic information to their users and assessing network performance.

Applications in Use: Member agencies have found numerous uses for the data beyond the original purpose of traffic monitoring and travel information, including the use of archive data for performance measures. And, the list of uses keeps growing! Several agencies are using the probe data for their 511, web and phone services. Other agencies are using the data to calculate and post travel times on changeable message signs. Performance measures and travel time reliability, particularly in congestion prone areas, are being calculated using real-time and archived Vehicle Probe Project (VPP) data. The VPP Suite, a new Coalition product, is a set of tools that uses VPP data as an input, to enable agencies to measure system performance. I-95 Corridor Coalition member agencies use the project monitoring site to observe traffic patterns within its boundaries and across state lines to anticipate the impact of recurring and non-recurring congestion due to incidents. VPP data is also being used as input to the Coalition's long-distance trip planner website, www.i95travelinfo.net, as well as variable message signs and/or kiosks at airports, welcome centers and regional malls to enhance traveler information.

Coverage: The initial core area from New Jersey through North Carolina has been expanded to over 7,000 centerline freeway miles, more than 20,000 freeway and arterial miles in all, including continuous coverage of the I-95 corridor from New Jersey through Florida. Coverage also exists in Rhode Island. The network includes full coverage of freeways and major arterials in North Carolina and the Tidewater area of Virginia, full or nearly full coverage of limited access roads in New Jersey, Maryland and South Carolina and the northern and eastern portions of Florida. In addition, coverage now includes ramps at 160 major highway-to-highway interchanges, with all states having interchanges included except Georgia.

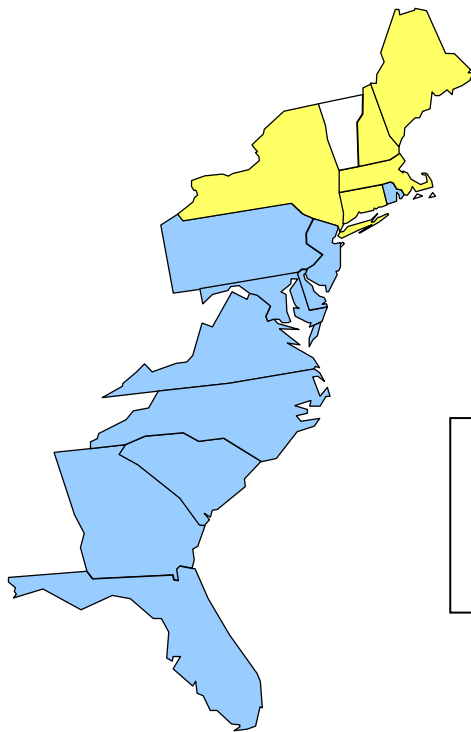
Data Validation: The ongoing VPP validation program has set the standard for quality control for outsourced traffic data. This comprehensive validation program, initiated in 2008, continues to monitor freeway data quality on a monthly basis, and has expanded to analyze probe data quality on ramps and arterials. Through this project, validation efforts have analyzed numerous corridor facilities, under a wide variety of operating conditions including light to severe congestion, holidays, snow storms, overnight work zones, all seasons, daytime and nighttime, weekdays and weekends. Through June 2011, data were collected on an almost monthly basis at 30 test sites in seven states, producing a total of nearly 35,000 hours of data across more than 650 miles.



Contract payment is linked to satisfaction of the specifications and validation results. To date, the data have satisfied the contract specifications. All methods used, data and analysis are made available to the transportation community for review.

Commitment:

As the value of the data from the Vehicle Probe Project is realized through the various applications and the continued quality via the validation efforts, the member states have increased their commitment to this project. In fact, all of the participating states have committed their own funds to continue this project and many have increased their coverage far beyond the initial core area. Currently the member states are investing two and half times the amount of funds that the Coalition is providing to this project. This translates to each of the 10 states with coverage contributing at least 50 percent of the funds for coverage in their state. As of the 2011 fiscal year, state member contributions now fund more than 70 percent of the total project.



States Participating in the Vehicle Probe Project

 States Participating in and committing funds to Vehicle Probe Project (for Year 19)

The I-95 Corridor Coalition is a partnership of the Departments of Transportation and related agencies, from Maine to Florida, working together to accelerate improvements in long-distance freight movement and passenger travel.