

VTM – Ubiquitous Traffic Volume from Probe Data “Taking it from the Lab to the Street”

The Eastern Transportation Coalition (formerly I-95 Corridor Coalition)



A new frontier in probe data & analytics

The Eastern Transportation Coalition (formerly I-95 Corridor Coalition) sponsored research to achieve accurate volume estimates through outsourced probe data for both operations and planning purposes.

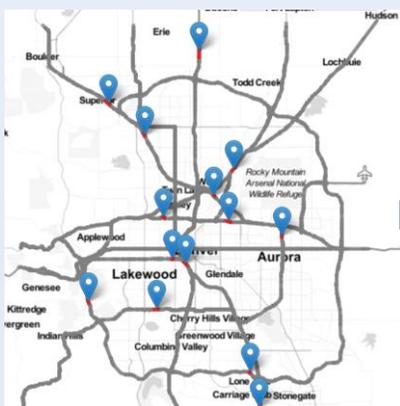
Phase II is now on track to commercialize this data

For many agencies, network-wide volume data remains a key missing dimension for complete and actionable situational awareness, accurately assessing transportation system performance and developing targeted, cost-effective mobility projects and programs.

Phase II tasks in process:

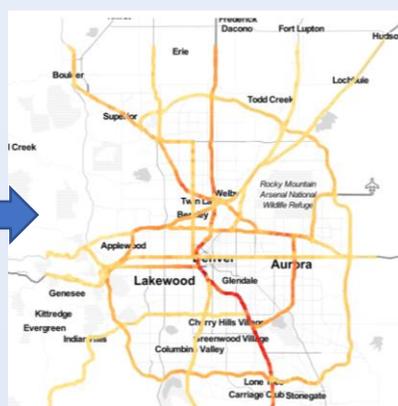
- Testing implementation of Phase I with agency partners
- Confirming volume estimates can be used for AADT, ADT and real-time operations applications
- Expanding calibration to arterials and low volume roads
- Quantifying acceptable error bounds / thresholds for planning uses and for operations
- Exploring if probe data can be used to test accuracy of non-ATR counters
- Summarize lessons learned and tips to address conflation needs

From Point Data



To

Ubiquitous Traffic Volume Data



THE EASTERN
TRANSPORTATION
COALITION

► Phase I Accomplishments

- Created a practical and logical framework for the delivery of probe-based volume estimates.
- Developed methods to ensure and measure the accuracy of the volume estimator.
- Developed the algorithms and methods using machine learning.

► Co-Principal Investigators

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**Get involved in a
pilot study!**

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► Why do we need more and better volume data?



Operations

- Detect real-time traffic volume in the network
- Traffic volume during inclement weather, special events

Planning & Performance measures

- Assess user costs
- Utilization of existing capacity
- AADTs – measured, not modeled



Economic & Energy assessment

- Estimate economic impact of congestion
- Quantify VMT and energy use



► What our members are saying



"Having robust estimated volume data derived from probe data would be a tremendous asset for DVRPC, complementing the speed and travel time data we're already using from the VPP Project to facilitate analysis of our entire road network, including problem identification, project development, and comprehensive, accurate system performance evaluation."