Vehicle Probe Project - Overview

William Stoeckert
Information and Payment Services Program Coordinator
I-95 Corridor Coalition

Transportation Research Board
January 2010
Session 531
Agenda

• The I-95 Corridor Coalition
• Vehicle Probe Project
• Agency & Coalition Applications
The I-95 Corridor Coalition is....

- An alliance of transportation agencies, toll authorities and related organizations, including public safety from Maine to Florida with affiliates in Canada
- A successful model for interagency cooperation and coordination since the early 1990’s
Coalition 2040 Strategic Vision

Develop an architecture for state-of-the-art regional operations and management, including real-time information.
Vehicle Probe Project

- This is a groundbreaking initiative among public, private and academia.

- 18 months of real-time data to seven contiguous states – New Jersey to South Carolina

- Continuous, comprehensive data validation, improving access to information, and expanding project limits.
Milestones

- Initial Task Order: February 2008
- *NJ Expansion Task Order: June 2008*
- *Service Operational: July 1, 2008*
- Initial Validation: July – October 2008
- *NC Expansion Task Order: November 2008*
- SAFETRIP Task Order: January 2009
- Initial Validation Results Published: January 2009
- *SC Expansion Task Order: August 2009*
Project Highlights

Contract
- 3 years – options to 10 years
- Task Order contract with U of Md
- Member agencies can:
  • Expand coverage, Add source data
  • Access consulting services, Extend project duration

Core Task
- Traffic data feed
- Monitoring web site
- Data archive
- Coverage
  • ~1500 freeway miles
  • ~1000 arterial miles (donated)
Project Requirements

**RFP Requirements**

*What*
- Avg Error: 10 MPH
- Avg Bias: 5 mph
- For 4 Bins: <30, 30-45, 45-60, >60 MPH
- Latency: ≤ 8 minutes
- Update Rate: ≤ 5 minutes
- Data Reliability: ≥ 95%
- Data Availability: ≥ 99%

*When*
- Flow > 500 VPH on a segment

*Where*
- Core Freeways, Expansions
- Not Core Arterials

**Validation**

*Through September 2009*

<table>
<thead>
<tr>
<th>Speed Range</th>
<th>Avg Absolute Error (MPH)</th>
<th>Avg Bias (MPH)</th>
<th>Hours of Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirement</td>
<td>&lt; 10 MPH</td>
<td>&lt; +/-5 MPH</td>
<td></td>
</tr>
<tr>
<td>0 – 30 MPH</td>
<td>4.8</td>
<td>2.7</td>
<td>233</td>
</tr>
<tr>
<td>30 – 45 MPH</td>
<td>6.0</td>
<td>2.1</td>
<td>288</td>
</tr>
<tr>
<td>45 – 60 MPH</td>
<td>2.1</td>
<td>0.0</td>
<td>1911</td>
</tr>
<tr>
<td>&gt; 60 MPH</td>
<td>2.0</td>
<td>-1.9</td>
<td>9249</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2.2</td>
<td>-1.4</td>
<td>11681</td>
</tr>
</tbody>
</table>
Project Status

Current Coverage
- Freeways: ~ 4700 Centerline miles
- Arterials: ~ 900 Centerline miles
- From NJ to SC
- ~ 11,000 Road Segments

Data Access (through 12/7)
- 15 agencies executed DUA
- >300 monitoring site users
- >30 data feed users

Availability since July 1, 2008
- Monitoring Site: 99.90%+
- Data Feed: 99.93%+

New…Traffic Tile Overlays/SAFETRIP

www.i95travelinfo.net
Vehicle Probe Project – Agency & Coalition Applications

- Web applications
- VP monitoring site to monitor freeways and detect issues
- Combining VPP data with other sensor data
- 511 operations
- Planning
- Performance measures
- SafeTrip 21
Thank You

www.I95Coalition.org