



I-95 CORRIDOR
COALITION

I-95 Corridor Coalition Vehicle Probe Project Validation

ITS World Congress

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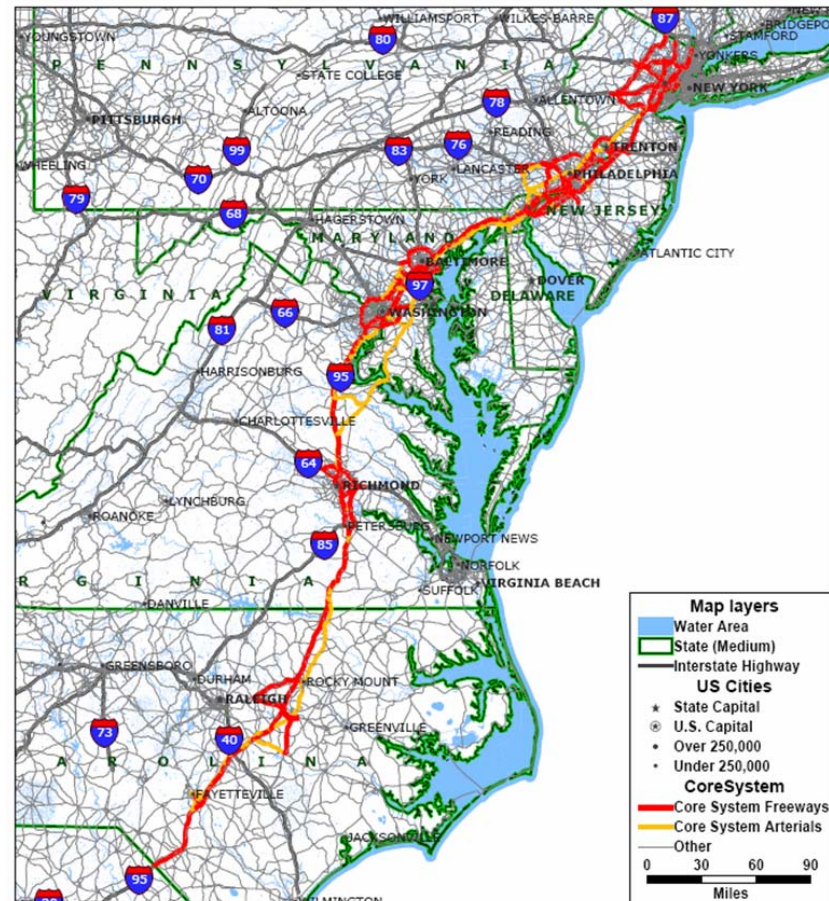
Network Coverage

Core Coverage

- 1500 Freeway miles
- 1000 Arterial miles
- New Jersey to North Carolina

Expansions

- All NJ Freeways
- NC Freeways
- in planning



Program Features

- **Data Feed Content**

- Real-time Speed, Travel Time, Confidence level
- Average Speed, Free Flow Speed
- Travel Time Updates Every Two Minutes

- **Monitoring Site**

- Agency Access Only
- View data in real-time



Data Quality Specifications

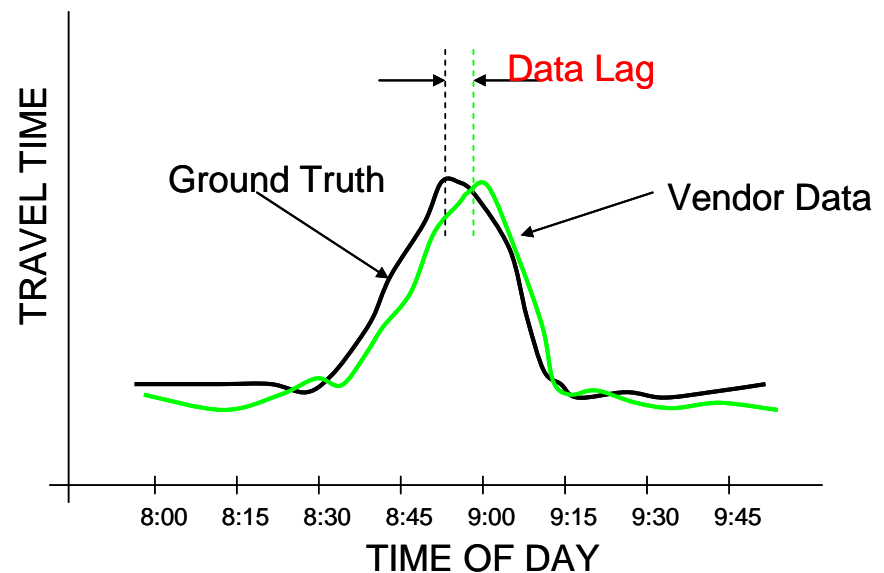
Specs are applied to freeways with flows/demand exceeding 500 vehicles per hour per direction

- Travel Time / Speed Data
 - Accuracy is assessed in four flow regimes
 - 0 - 30 MPH 30-45 MPH
 - 45-60 MPH > 60 MPH
 - In each range the following apply
 - Max average absolute speed error 10 MPH
 - Speed error bias +/- 5 MPH Max
- Based on space mean speed - (distance/travel time)

Data Quality Specifications cont'd

- Data Lag - Maximum 8 minutes

Data Lag is the difference between the time the traffic flow is perturbed as a result of an incident and the time that the change in speed is reported in the traffic data.



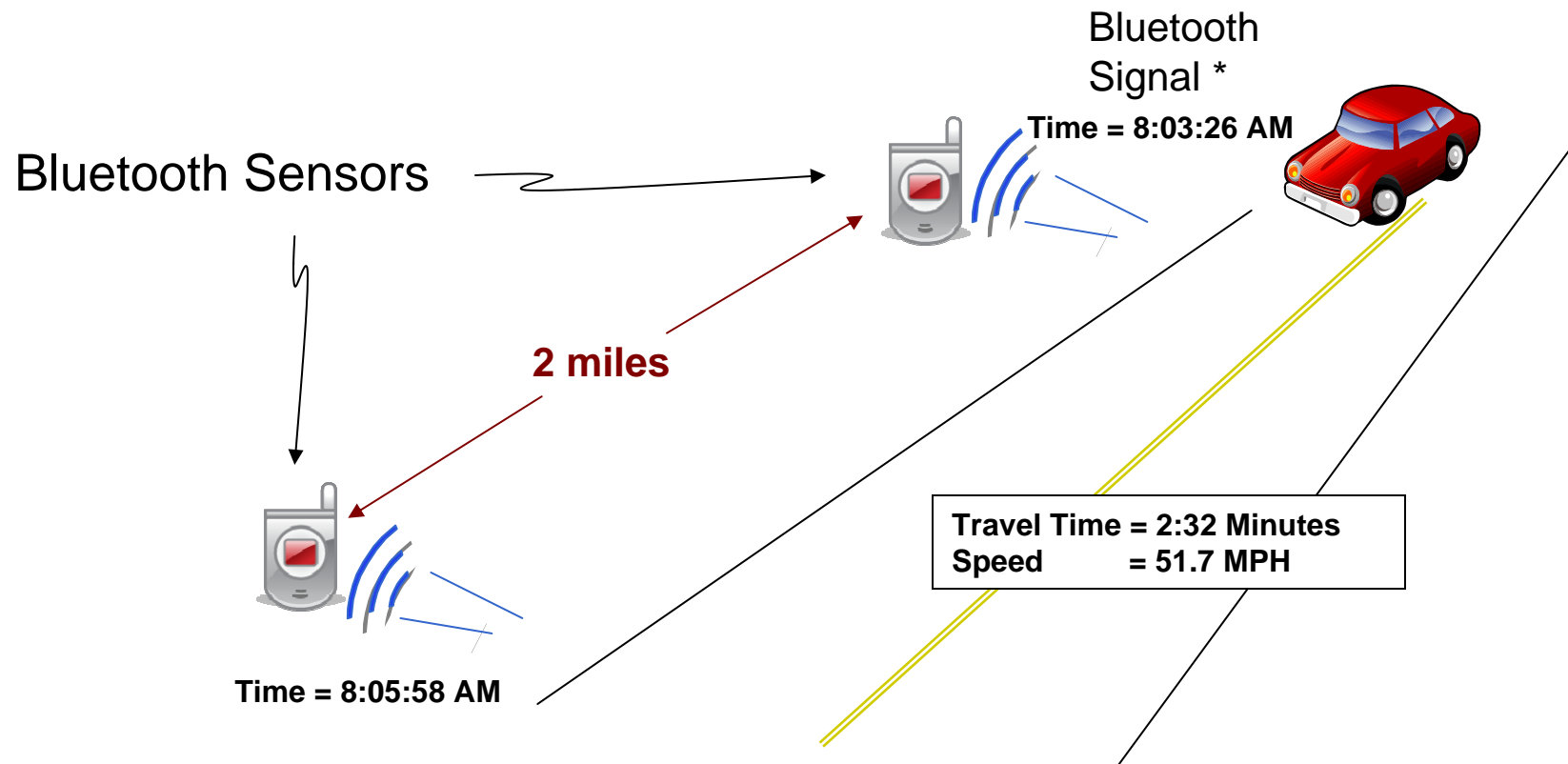
Data Validation

- Initial Validation (system acceptance)
 - July through October 2008
 - ~ 240 miles
 - Report due in October
- Ongoing Validation
 - Commences in October 2008
 - ~ 80 miles
 - Monthly reports

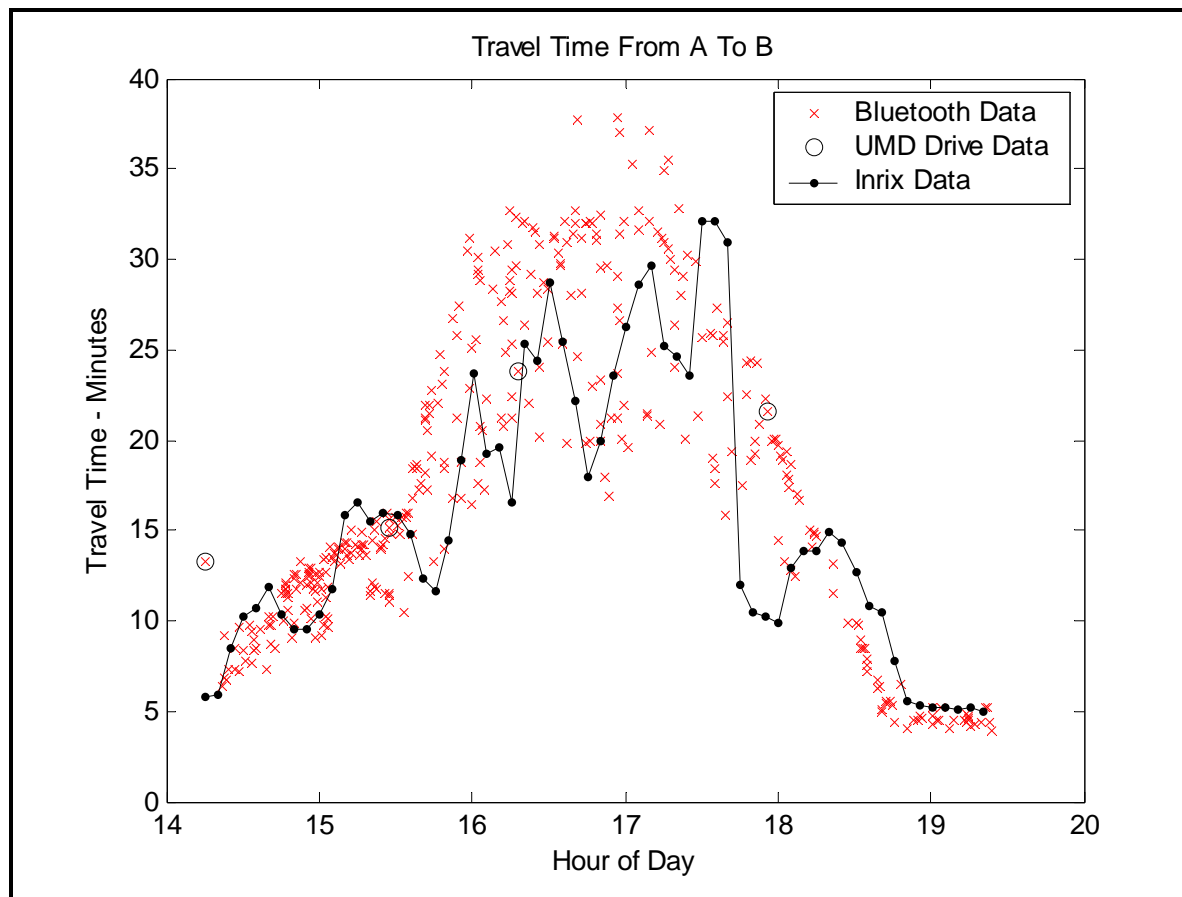
Data Validation cont'd

- **Locations**
 - Statistically representative of corridor
 - Chosen in cooperation with agencies
 - Seeking high likelihood of congestion
- **Ground Truth Data**
 - Floating car data
 - Bluetooth anonymous probes

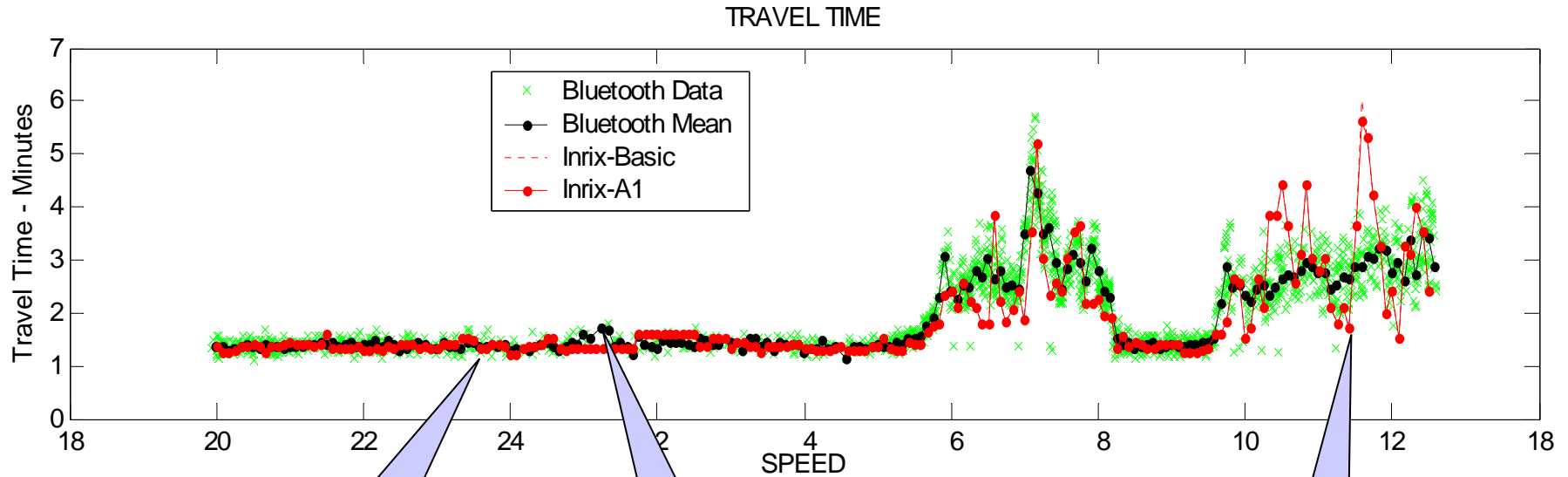
Bluetooth Traffic Monitoring



Sample Validation



Sample Travel Time - Plot

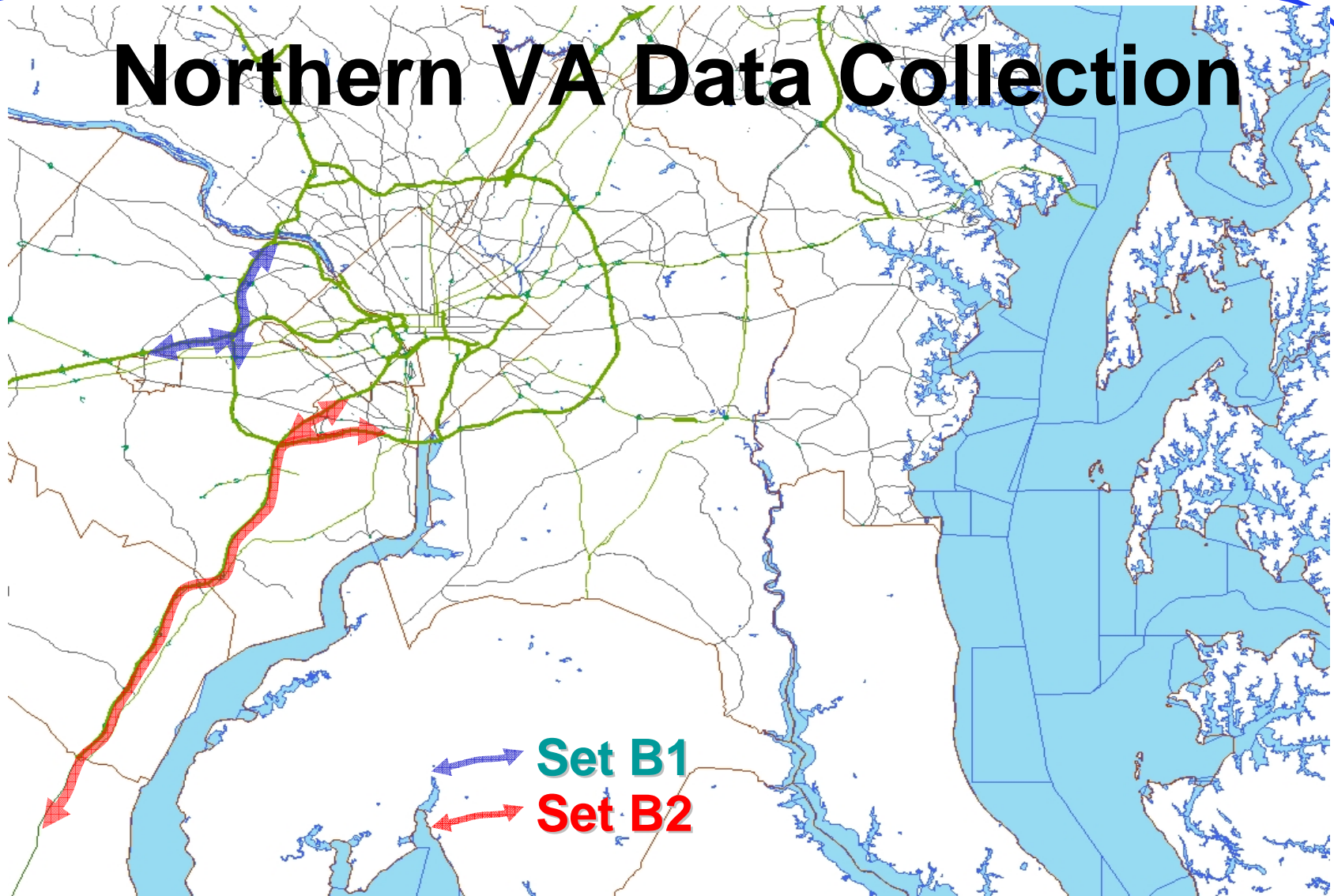


**Green Markers:
Individual Bluetooth
Ground Truth Data
Point**

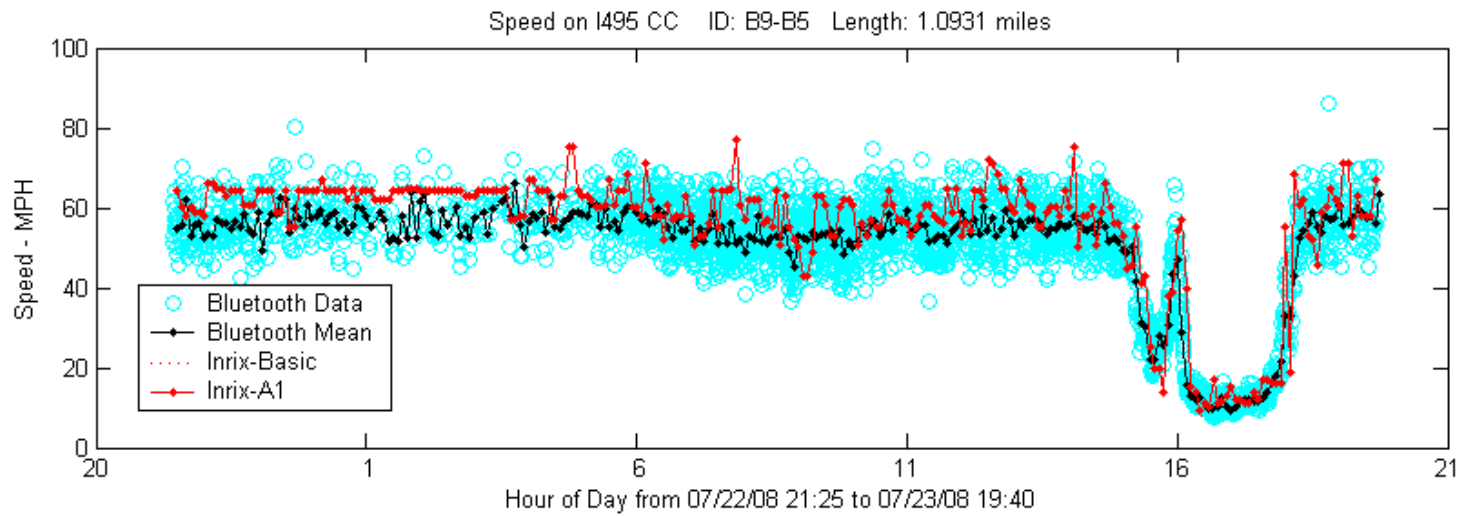
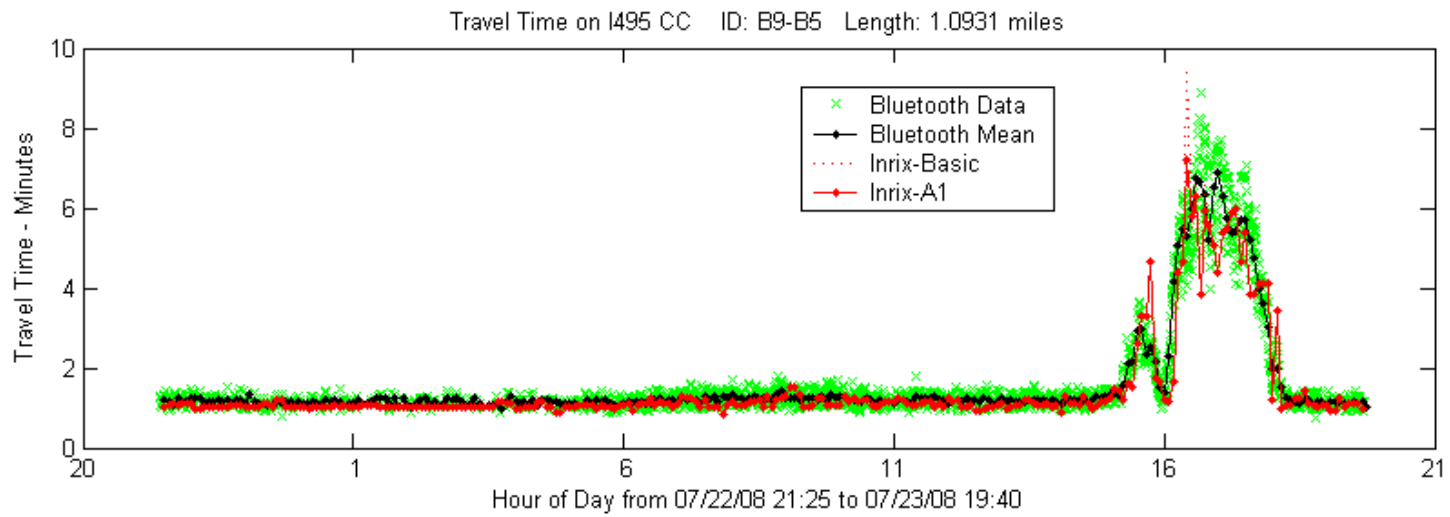
**Black Line:
Mean of the Bluetooth
Ground Truth Data**

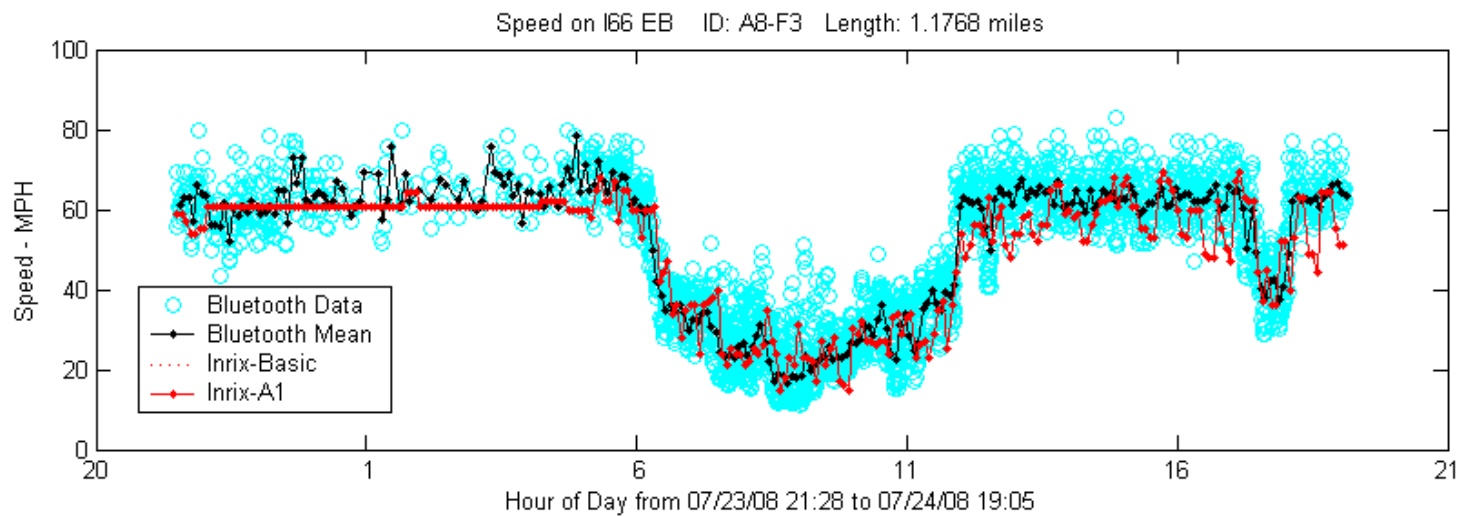
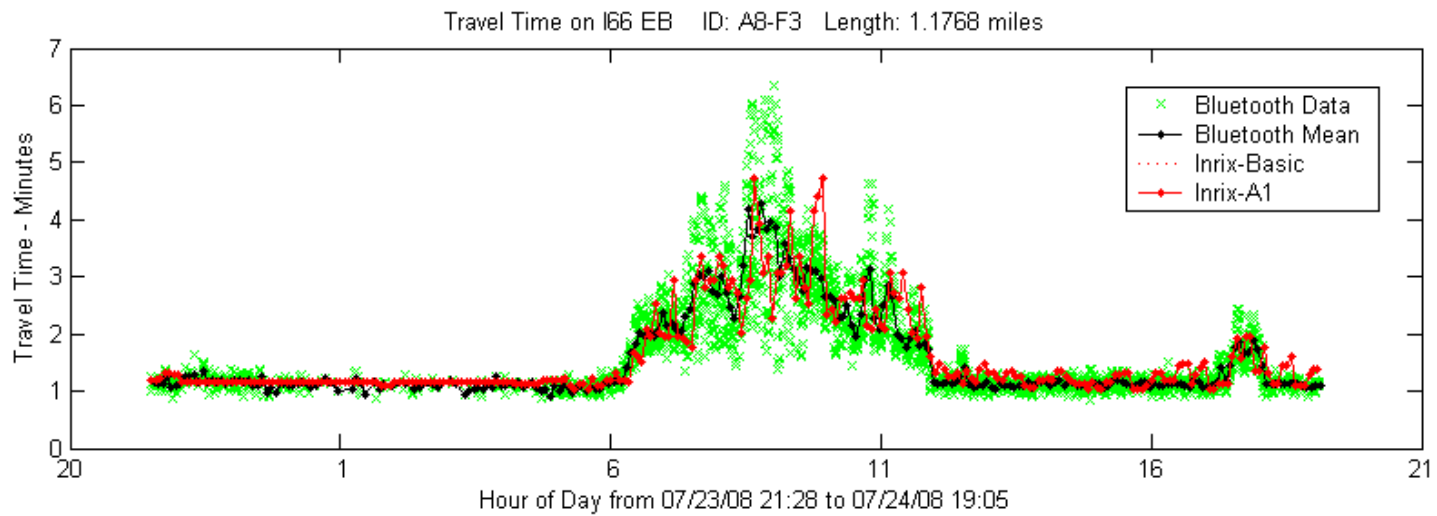
**Red Line:
Travel Time from Inrix
Data Feed**

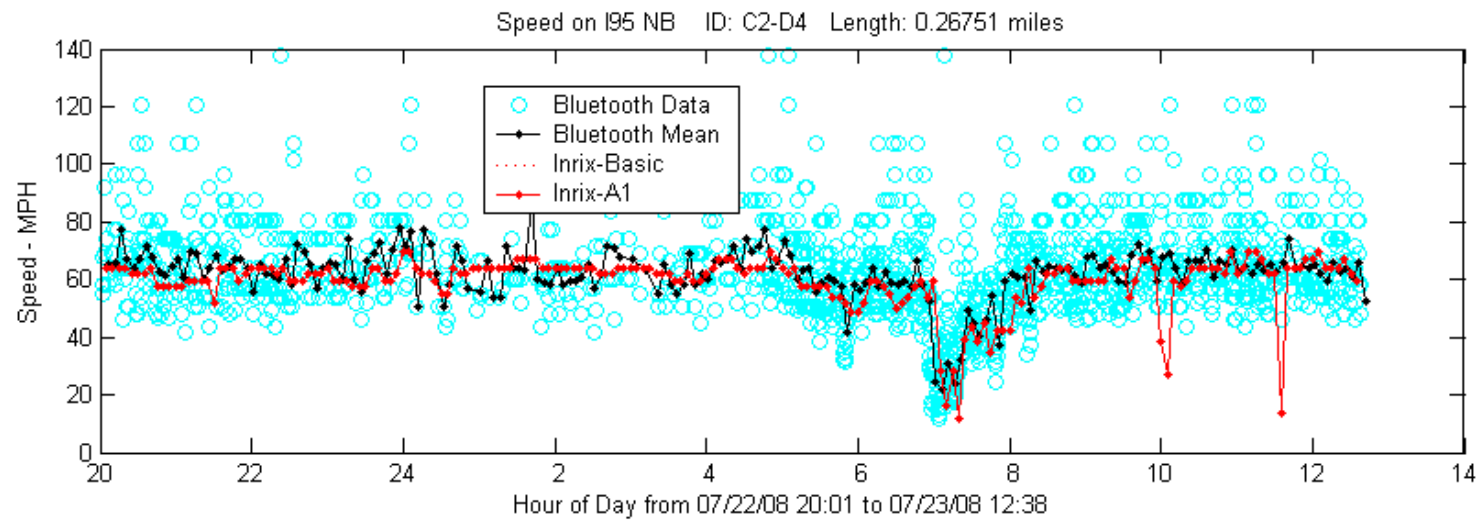
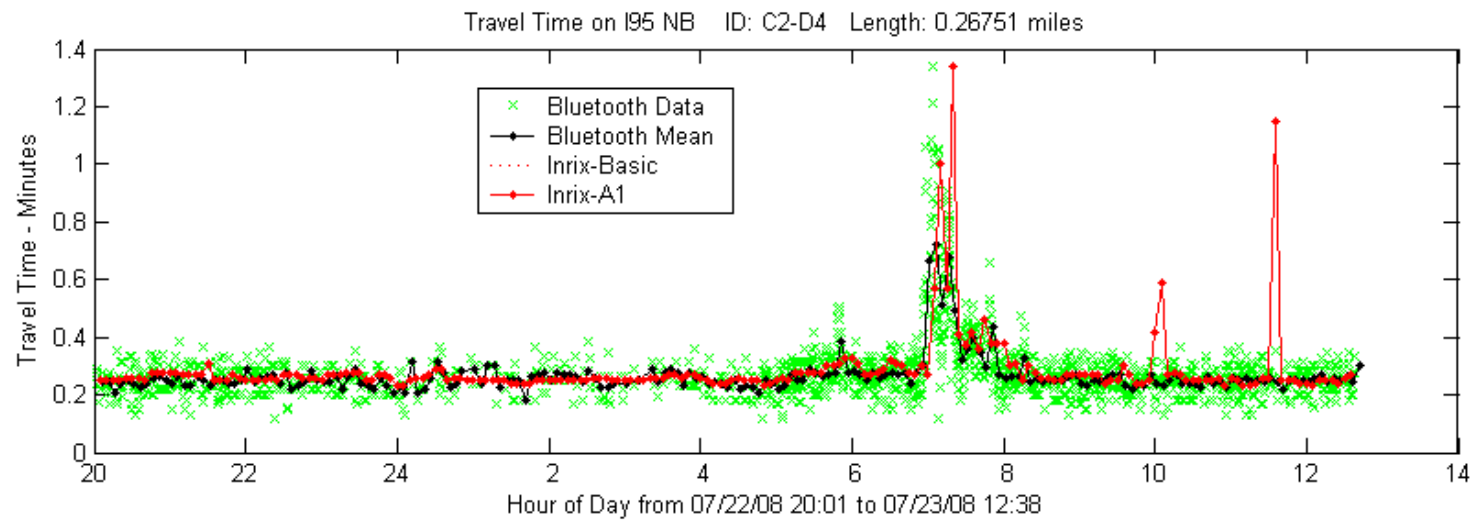
Northern VA Data Collection



Revised 7-25-08







Questions?

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