

Traffic Monitoring Challenges and Opportunities

Highway Information Seminar

Thursday , November 17, 2011

10:00 p.m. to 11:30 a.m.

Room – Washington #2

FHWA

1200 New Jersey Avenue

Washington, DC 20590



Objective

The goal of this session is to discuss challenges and opportunities faced in the traffic monitoring world – new legislation, private business involvements, monitoring technology, vehicle to vehicle and vehicle to infrastructure

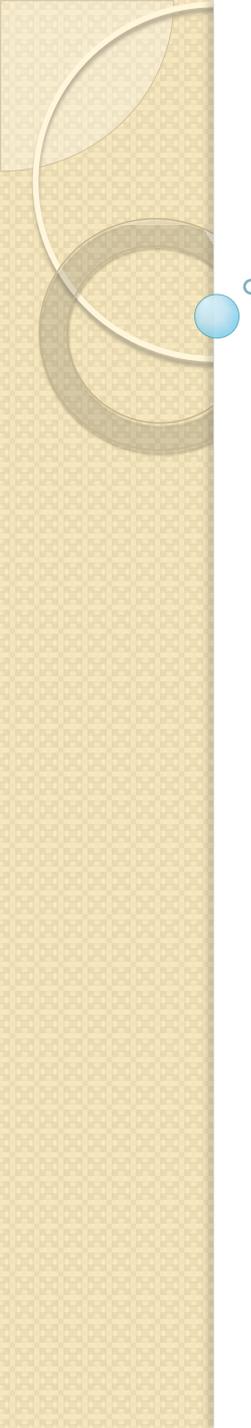
New Legislation

- ISTEA ('91-'97) \$155 B
- TEA-21 ('97-'03) \$218 B (>40%)
- SAFETEA-LU ('03-'09) \$244 B (>12%)
- MAP 21 \$??? B (> or <??%)



Performance Management

- Accountability
- Performance Measurement
- Benefits and Cost Analysis
- Other program evaluation and analysis



Private Business Engagement

Roadway Networks

NAVTEQ

Tele Atlas

Private Business Engagement

Traffic Data

- TomTom
- Garmin
- Magellan
- Mio
- INRIX Traffic
- Traffic.COM
- On Star
- GPS Tracking
- others



Private Business Engagement

**Compete
or
Complement
or
Both**



Monitoring Technology

Intrusive vs. none intrusive

Infrastructure based vs. vehicle based

Reporting Technology

Wire

Wireless

Internet Based

Phone 5 | 1

Mobile applications

others

Operations-Traffic Monitoring

- Private vs. Public operations
- 511 Centers and TMC precedents



Vehicle to Vehicle and Vehicle to Infrastructure

How V-2-V affects data collection
(Connected Vehicle)

How V-2-I affects data collection

Immediate Needs

- VMT by vehicle type and roadway functional class methods
- VMT with local roadways methods
- Travel Times
- Speed data

Speed Data Format

- Flexible - allows 15 to 25 bins
- Flexible – allows 5, 15 or 60 minute time intervals
- 5 mph bin increments
- Flexible 10 mph (bicycle) to 120 mph speeds (safety)

Per Vehicle Data Format

Flexibility and foundation for other data programs

- Axle Weights (left and right)
- Axle Spacing's
- Vehicle Speed
- Vehicle Length
- Time to sub second interval
- Pavement Temperature
- Headway / Occupancy
- Inductive Signatures or other entry



Thank You!

**Highway Information Seminar
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