



UNITED STATES
DEPARTMENT OF TRANSPORTATION

Transit Connected Vehicle Research for Safety Update

Steve Mortensen
Federal Transit Administration

ITS Safety Workshop on Connected Vehicles
Chicago, Illinois
August 2, 2011

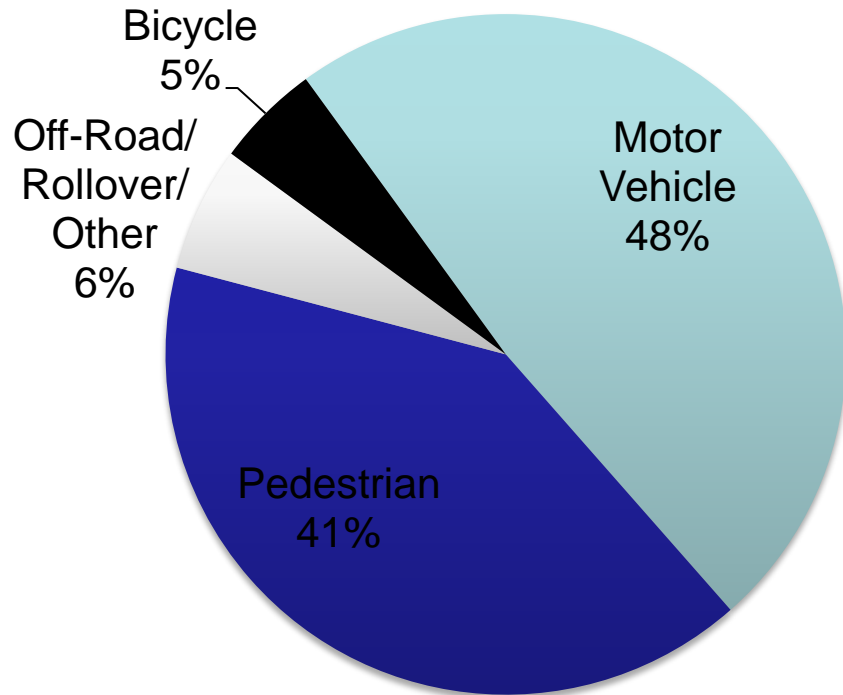
Transit Connected Vehicle Research for Safety

- Over 100 fatalities, with thousands of injuries annually
- Less than 1% of total traffic crash casualties but often the front-page news
- Over \$250M in damages

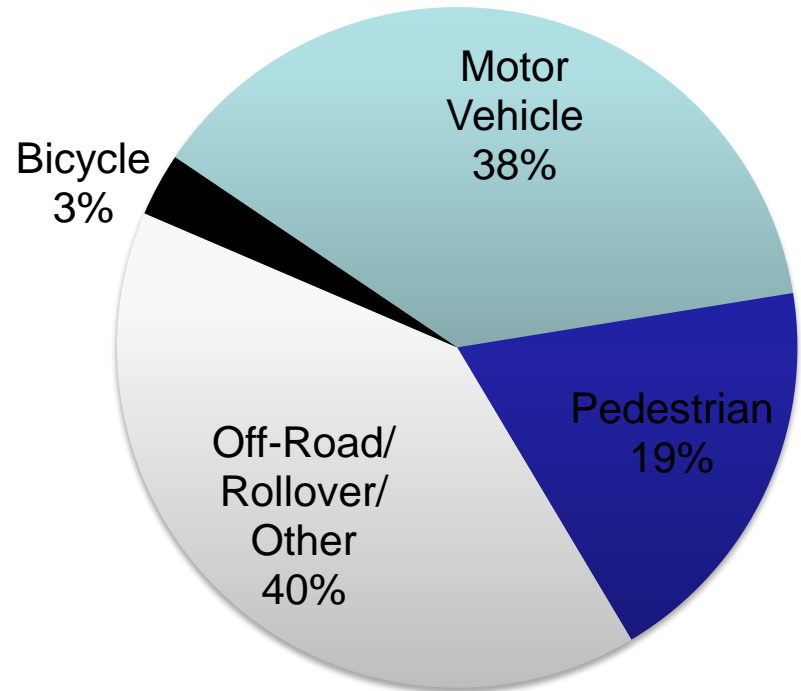


Transit Bus Safety Concerns

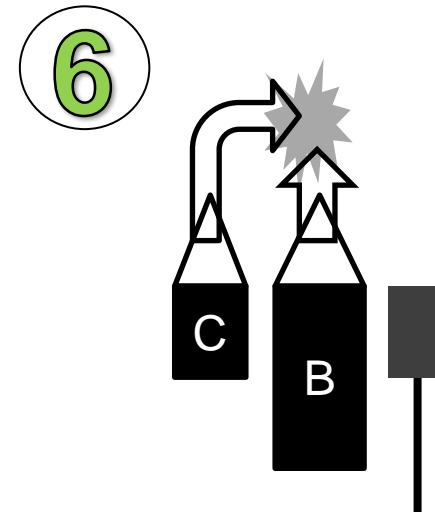
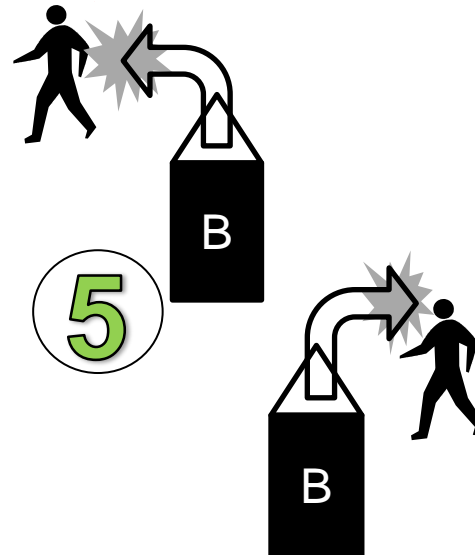
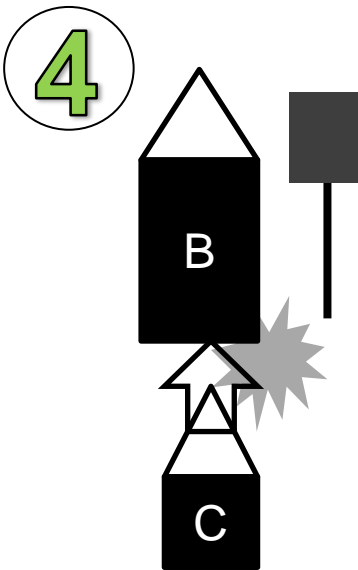
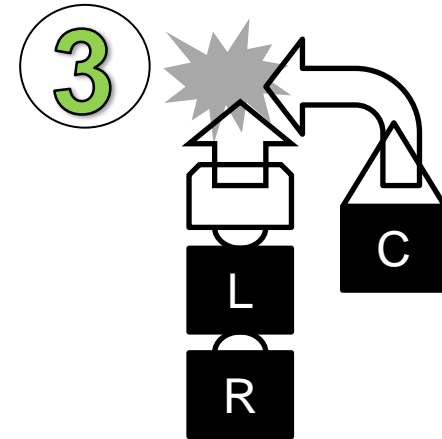
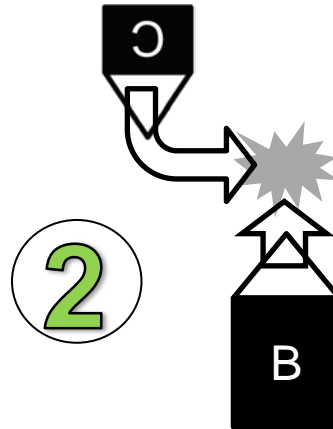
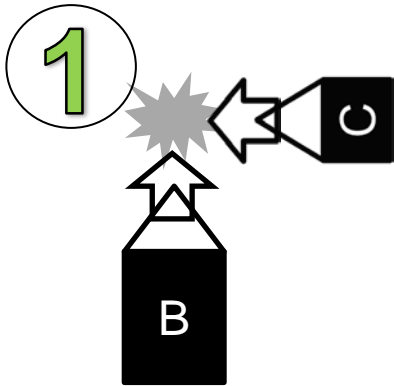
Transit Bus Fatalities



Motor Vehicle Fatalities

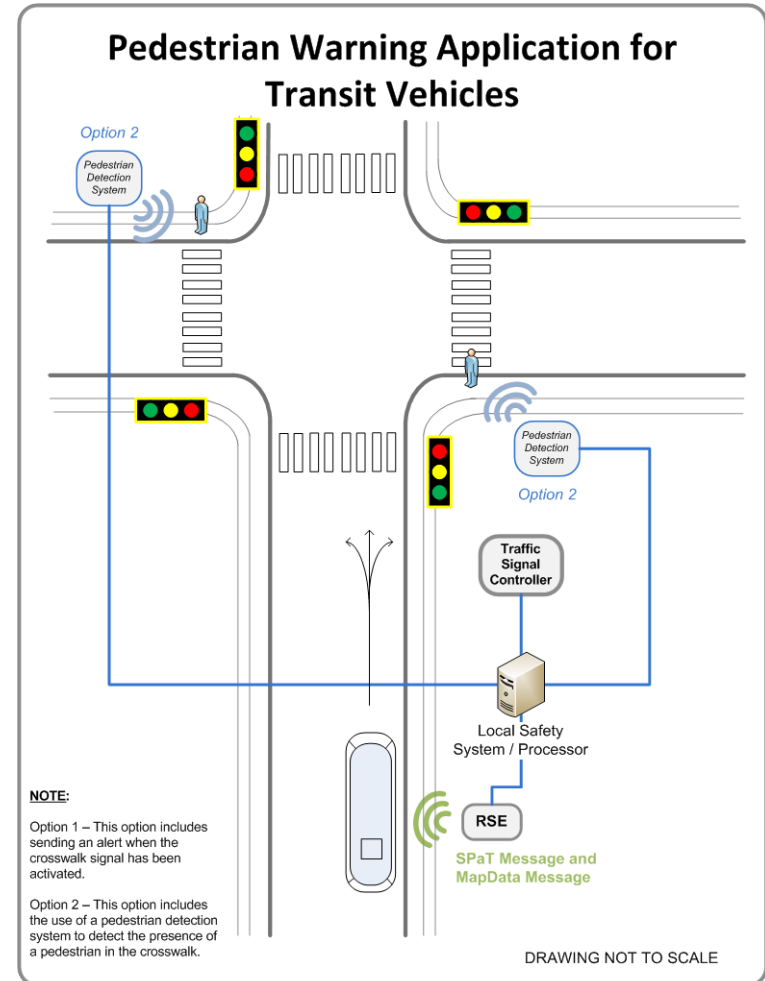


Transit Safety Applications



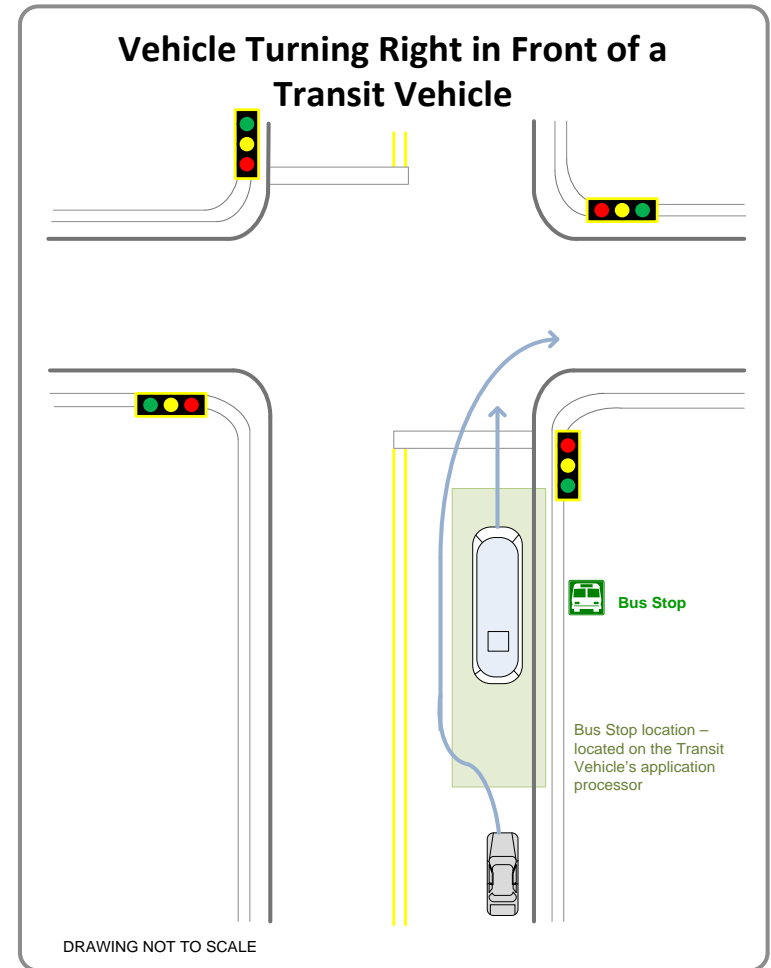
Pedestrian and Turning Bus Crash Warning

- Approximately 35% of all pedestrian-bus crashes occur during turning maneuvers (and 49% of fatal bus-pedestrian crashes).
- Of these, 85% occur during left turns, and 15% during right turns.



Right-Turn-In-Front-of-Bus Crash Warning

This application was discussed and recommended by transit stakeholders



Transit Connected Vehicle Safety Pilot Roadmap

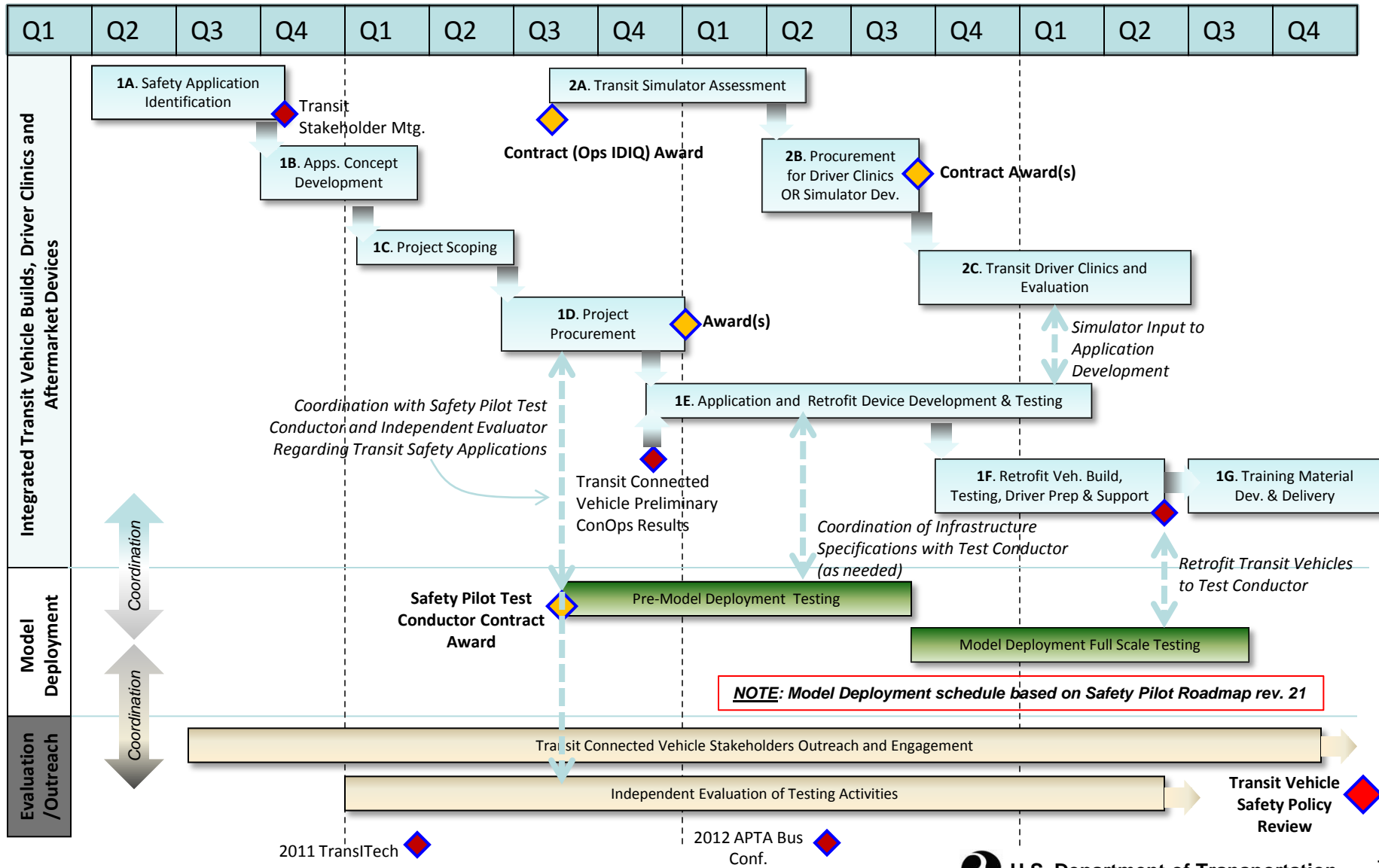
(rev. 07/2011)

CY 2010

CY 2011

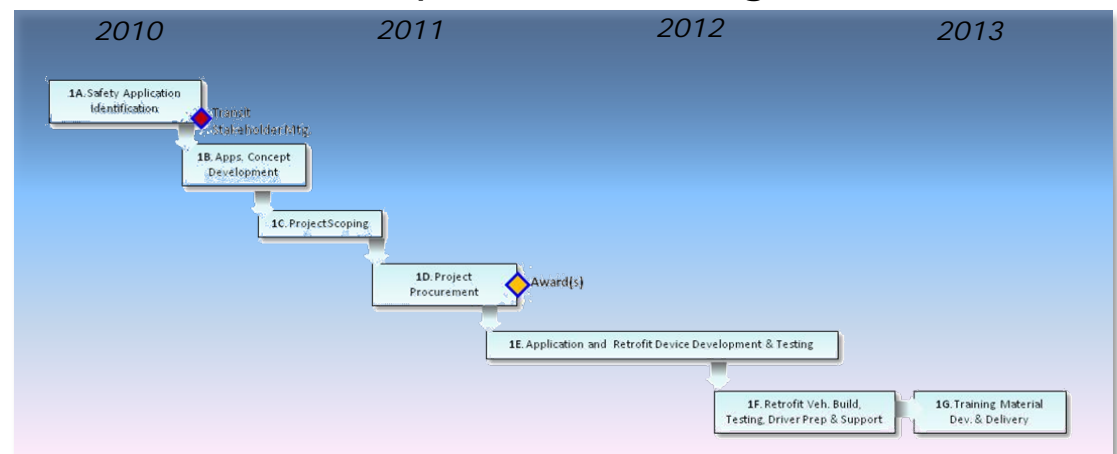
CY 2012

CY 2013



Transit Connected Vehicle for Safety Applications

- Analyzed empirical transit crash records and identified common transit crash types
- Solicited transit stakeholder input and prioritized transit safety applications
- Scoped transit safety retrofit package (TRP) w/ two safety applications
- Will procure and execute TRP development, testing, and training



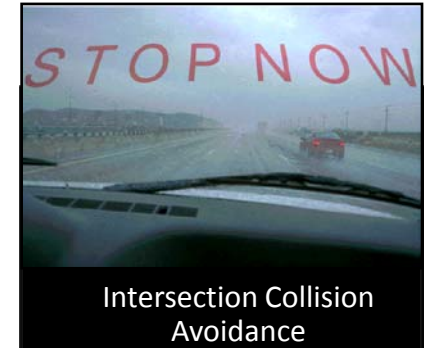
Bus Driving Simulator Assessment

- Conduct feasibility assessment of transit bus driving simulators for Connected Vehicle research
- Serve multiple functions, including driver clinics, human factor research, and driver training
- Project kick-off planned August 2011



Light Vehicle Safety Application for Transit Study

- Assess the applicability of current light vehicle safety applications for transit vehicles
- Project kick-off planned August 2011

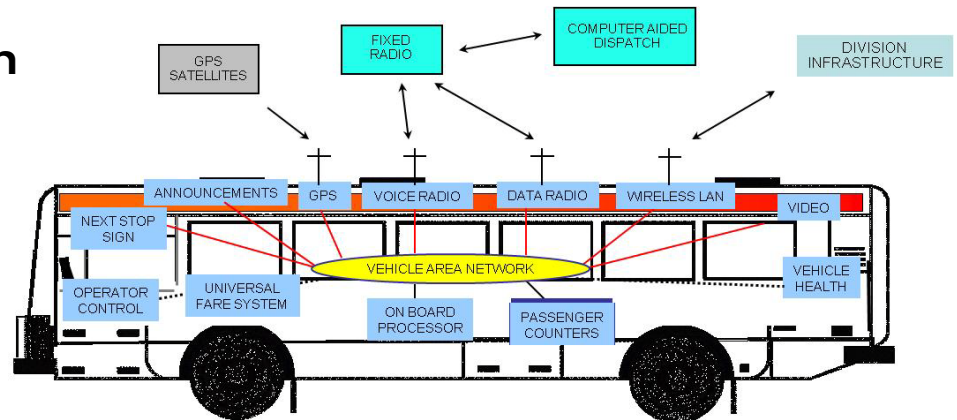


Transit Connected Vehicle Concept of Operations

- Brings together research on key concepts for transit connected vehicle safety, mobility, and environmental applications
- Includes review of existing literature with a thorough assessment of transit stakeholders' needs
- Serves as the foundation connecting all other planned activities under the Connected Vehicle Research

User Needs Listening Session

- August 4 (9am – noon)
- Hyatt Regency Chicago



For More Information.....

RITA U.S. Department of Transportation
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Updated May 10, 2011 11:44 AM

Imagine that . . .
transit and truck drivers receive regular updates, allowing them to stay on schedule – and stay in business.

Shelley J. Row, P.E., PTOE
Director
ITS Joint Program Office

Biography

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Message to Stakeholders from RITA Administrator Peter Appel
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Our Current Research
Applications Mode-Specific Cross-Cutting

- Vehicle-to-Vehicle Safety
- Vehicle to Infrastructure Safety
- Real-Time Data Capture
- Dynamic Mobility Applications
- Environment
- Road Weather

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