Transit Connected Vehicle Research for Safety Update

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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

- Bicycle: 5%
- Off-Road/Rollover/Other: 6%
- Pedestrian: 41%
- Motor Vehicle: 48%

Motor Vehicle Fatalities

- Bicycle: 3%
- Off-Road/Rollover/Other: 40%
- Pedestrian: 19%
- Motor Vehicle: 38%
Transit Safety Applications
• 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.
This application was discussed and recommended by transit stakeholders.
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.....

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