

Transit IVI: Project Updates; Steering Group to Meet

Transit IVI projects continue to make progress, based on information provided by **Brian Cronin**, Transit IVI Technical Director for the US **Federal Transit Administration** (FTA). Transit applications will be a key part of the National Intelligent Vehicle Meeting to be held July 19-20 in Washington, DC.

FTA to Present Collision Findings

FTA's *pedestrian safety project* reports that pedestrian accidents generally occur when the bus is following a straight path, and that contact is made usually on the right side of the vehicle. Causes include driver inattention and unpredictable pedestrian behavior. The pedestrian typically suffers mid-level injuries; needless to say, significant costs result from these accidents. FTA will present results of their initial analyses and their recommendations at the July IVI meeting.

These initial analyses -- aimed directly at developing performance specifications for forward collision warning for transit buses -- also show that forward collisions are a significant portion of all bus accidents (not necessarily with pedestrians) and the most frequent points of contact are the front corners. Accident costs are incurred through both vehicle damage and claims from passengers who are injured in sudden-braking falls.

FTA is working with **San Mateo County Transit, California PATH**, and bus manufacturer **Gillig** to define a counter-measures system, which is expected to result in smoother vehicle maneuvering and a reduction in tailgating. Plans call for equipping two buses and collecting

data this summer, using the insight gained to refine functional requirements.

Pittsburgh as Proving Ground

Lane Change and Merge Collision Warning systems are on the road in Pittsburgh, with ten buses already equipped and ten more in the works. A total of 100 buses will be outfitted with off-the-shelf units sold by **Blind-Sight™**. The system consists of five sensors on each side, warning lights and audible alerts, and warning volume/brightness controls. The sensors are ultrasonic, detect objects within six feet of the bus, and cause and alarm to sound if the driver activates the turn signal when objects are detected. Technology assessments have thus far concluded several things: the system should provide full, 360-degree coverage around the bus; objects underneath the bus should be detected; pedestrians should be distinguished from vehicles; vehicle velocity should be captured and reported; and system cost should be less than \$5000. The **Port Authority of Allegheny County** transit agency is working with **Carnegie Mellon University** and **Pennsylvania DOT** in the project.

The Transit IVI steering group, composed of reps from various transit agencies and industry stakeholders, will meet on Friday, July 21 in Washington, DC -- the first time they've met since September '99. FTA relies on the inputs of this steering group, which is open to observers, to keep its IVI activities focused on the right topics. The steering group is administered by **Harriet R. Smith** of **ITS America**.



Transit IVI Steering Group Preliminary Agenda

Welcome, Introductions, Sign-in

*John English
Chair, Transit IVI Subcommittee
General Manager, Utah Transit
Authority*

**Review Actions from September,
1999, Meeting and Discussion of
Comments on:**

*Brian Cronin,
General Engineer
Federal Transit Administration*

- Pedestrian Safety
- Information Integration for
Warning Displays
- BRT and IVI/Lateral and
Longitudinal Guidance

Seeking Industry Advice:

Federal Transit Administration

- Criteria for Operational Tests
- Role of Precision Docking
- Future of Transit IVI

**Summary of Advice: Consensus
and (Preliminary) Vote**

*Harriet R. Smith
Manager, Transit Programs
ITS America*