

NYSMPO SWG Scan: November 2009

GTSC presentations: <http://www.ghsa.org/html/meetings/annual/2009/presentations.html>

I reviewed many of the presentations and selected several that seemed most relevant:

Corridor safety: Lowell Porter, Governor's Representative and Director, Washington Traffic Safety Commission, http://www.ghsa.org/html/meetings/annual/2009/pdf/14_Porter.pdf

Speeding: Kathryn L. Henry, Marketing Specialist, Office of Communications and Consumer Information, NHTSA, http://www.ghsa.org/html/meetings/annual/2009/pdf/13_Henry.pdf

Motorcycle safety: Marianne Trussell, Chief Safety Officer, Florida Department of Transportation, http://www.ghsa.org/html/meetings/annual/2009/pdf/12_Trussell.pdf

Rural Road safety: Lee Munnich, Director, Center for Excellence in Rural Safety, University of Minnesota, (SafeRoadMaps) http://www.ghsa.org/html/meetings/annual/2009/pdf/9_Munnich.pdf

FHWA Safety Program: For email updates: <http://safety.fhwa.dot.gov/esubscribe.cfm#ped>

New Sign Retroreflectivity Toolkit

(http://safety.fhwa.dot.gov/roadway_dept/night_visib/retrotoolkit/) and *Sign Upgrade Guide* (with Minimum Maintained Retroreflectivity Levels). All agencies will have to establish and implement a sign maintenance program that addresses the minimum sign retroreflectivity requirements by January 2012.

Pedestrian webinars: http://safety.fhwa.dot.gov/ped_bike/ped_focus/webinar.cfm

November 2009- three presentations on the crosswalk guidelines issued by the Federal Highway Administration several years ago in the document "Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations." There are also several others from previous months.

UC Berkeley SafeTrec (Safe Transportation Research & Education Center):

Community Pedestrian Safety Trainings- The half-day training is for local neighborhood citizens and safety advocates concerned about pedestrian safety and wanting to identify strategies for improving it. It may complement other training or planning that takes place in a city among professional traffic planners and engineers, enforcement, etc. Each training is tailored to a particular community and is especially geared toward community members and pedestrian safety advocates. A representative from the **city's traffic or planning department** is encouraged to attend the CPST training. Likewise, a **community representative** should be present at trainings for professionals regarding pedestrian safety.

The training includes:

Expert presenters

Interactive training sessions

Small group discussion

Walkability Assessment

This training teaches basic pedestrian safety **best practices** (e.g. high visibility crosswalks, crash reduction factors), **community engagement skills** (e.g. identifying community professionals empowered to solve problems), **walkability assessment** of a selected pedestrian danger area, and **mapping** or other small group interactive prioritization of safety issues. At the end of the training, participants will have a set of pedestrian safety priorities and a next steps action plan to promote safe walking in the community. The training is also designed to help communities with development and implementation of a **Pedestrian Safety Action Plan**. (see <http://www.tsc.berkeley.edu/pedtraining/santabarbara.html>)

UMinnesota: www.its.umn.edu

Effects of Alcohol on Motorcycle Riding Skills

(<http://www.its.umn.edu/Events/SeminarSeries/2009/fall/articles/sept24.html>)

Presentation by [Janet Creaser](#), Research Fellow, HumanFIRST Program, University of Minnesota; September 24, 2009

Alcohol intoxication is a significant risk factor in fatal crashes for passenger cars and motorcycles. Field research has shown that **run-off-road crashes and loss-of-control crashes for motorcycles increase at a blood alcohol level of 0.05 percent—which is below the U.S. legal drinking limit of 0.08 percent.** At present, however, there is limited objective data on which motorcycle riding skills are impaired by alcohol.

At the September 24 Advanced Transportation Technologies seminar, HumanFIRST Program research fellow Janet Creaser presented findings of a 2006 study she and a U of M research team conducted for the National Highway Traffic Safety Administration. The study measured the effect of alcohol impairment at four blood alcohol content (BAC) levels at and below BAC 0.08 on the basic riding skills of motorcyclists on a controlled course. Questionnaires were used to assess riders' awareness of their level of alcohol impairment and how that affected their decision-making. Using a test motorcycle modified by the Intelligent Vehicles Laboratory, researchers ran motorcyclists with blood alcohol levels of **0.02, 0.05, and 0.08** through a test track based on training tasks from the Motorcycle Safety Foundation training courses. Riders were measured on their responses to four tests: **control and maneuverability, hazard avoidance, curve negotiation, and emergency stops.**

Riders showed the greatest impairment on tasks with complex information, high time pressure, or tight space constraints, Creaser said. For example, in the hazard-avoidance test, drivers had to dodge an obstacle with a 1.5-second warning, a high time pressure. Impairment was seen at the BAC 0.08 and 0.05 levels for several measures, including response time to the hazard-avoidance task, speed maintenance during the curve circuit, and ability to stop in a straight line during the emergency stop.

Because the test track was designed with typical types of motorcycle crashes in mind such as running off the road, going off curves, and loss of control, Creaser said the results showing impairment in the test tasks are indicative of the types of crashes seen among motorcycle riders in the real world. The observed impairment in the test track study, where tasks were low-speed (less than 25 mph) and the environment highly controlled, would be magnified in the real world where motorcyclists are often driving at much higher speeds, she noted.

"If you have a detriment in response time due to alcohol, you travel a lot further at 50 mph than you do at 10 mph, which could be the difference between hitting an obstacle or getting out of the way," she said.

A follow-up questionnaire had drivers assess how impaired they were and their willingness to drive in an impaired condition. The surveys found that drivers with BAC levels of 0.05 and 0.08 knew they were impaired and would be less likely to get on a bike. But focus group data from other studies has shown that in a real-world situation, external factors would likely influence their decisions to ride, Creaser said.

The study concluded that riders show impairment due to alcohol on certain skills at BAC levels of 0.05 and 0.08, and those results, combined with recent crash data, suggest that motorcyclists are potentially at an increased risk of a crash even below legal BAC levels.

Development and Evaluation of a Cellular Phone Based Teen Driver Support System

(<http://www.its.umn.edu/Publications/ResearchReports/reportdetail.html?id=1814>)

Janet Creaser, Richard Hogle, Michael Manser, Max Donath

September 2009; Report no. CTS 09-22

Abstract

Motor vehicle crashes are the leading cause of death for **teenagers** with **speeding, seat belt non-compliance, alcohol involvement, and distractions** serving as the primary contributors to this unacceptably high crash rate. In an effort to mitigate this situation, a prototype teen driver

support system (TDSS) has been designed and developed. This computer-based system provides **real-time feedback to teens regarding speed limit violations and warns of upcoming speed zone changes**. A unique feature of this system is that speed limit feedback is relative to the speed limit posted on the roadway on which the teen is driving. By informing teens of speeding behavior, it is hoped that this system will reduce teen crash rates. This project includes a description of the TDSS features and specifications for how the TDSS operates using the **Smart Phone technology**. A small usability study was completed as part of the project where teen drivers (aged 18-19) drove with and without the system. Overall, the pilot study demonstrated that the TDSS could operate effectively within a vehicle driven by a teen driver. **Warnings and messages were presented to the drivers and corresponding text messages were sent when drivers failed to alter their behavior in relation to a warning**. The performance data trended in the direction expected, with the TDSS encouraging lower speeds and less speeding overall. **The teen participants reported that very little mental effort was required to interact with the TDSS while driving, but they also reported the system increased their perceptions of stress while driving**. The second phase of the study proposed the information that should be presented in the real-time text messages and to parents in a weekly report. A potential weekly report format is described. Finally, the project identified the issues associated with using the TDSS as an additional tool to support GDL programs.