

Distracted Driving Summit
Presented by the U S Department of Transportation
30 September - 01 October 2009

LMW note: Please be advised that this is simply the notes I took from listening to the first day of the summit. I have made no attempt to draw any conclusions, just to try to record as accurately as I could (and that is lacking in areas) the information that was disseminated. An interesting note, was that the word "motorcycle" was only mentioned two times by the gentleman who represented Utah Mass Transit. There were some interesting graphs that I was not able to capture and will note so in italics where necessary. Hopefully they will become available at some later date. Please forgive any misspellings in names or organizations. The webcast was a decent quality, but not perfect. Nor am I. And a final note, for some reason, my spell check isn't working.

Notes: Day One

DOT Welcome and Summit Opening

Peter Appel, Administrator - Research and Innovative Technology Administration
Opened the day thanks to all who are participating.

Opening Address

Ray LaHood, Secretary -U.S. Department of Transportation

Distracted driving has become the new "menace to society". It is an epidemic and distresses me greatly personally as well as the nation's chief executive on safety. We have included a panel of teens because we think their views are extremely important. We met with several victims of distracted driving incidents whose stories are heartbreaking. Introduced Greg Zaffke, II (*Anita Zaffke's son*) along with two others who were victimized by distracted drivers. Nearly 8,000 have been killed, 1/2 million injured involving use of a hand held device. Hand held cell phones are not the only distraction, We can include iPods, video games, Blackberries, etc., and it goes beyond usage by private citizens. A generation ago, there was a blind eye towards seat belt usage and drunk driving. We need to turn society's attitude the same way against distracted driving. The wireless industry wants to help. There are approximately 200 distracted driving bills in 46 states. 21 states and DC have banned for novice drivers. Six states and DC have banned for all drivers. We can't rely on legislative action only. "You can't legislate responsible behavior."

Panel: Driver Distractions and Inattention - Definitions and Data

Moderator: Victor Mendez, Administrator - Federal Highway Administration

Last year the U.S. Experienced the lowest number of fatalities since 1961. Distracted driving is difficult to quantify. No single measure can precisely define the scope of the problem. We need to look at it from numerous different angles. Start with examining crash data, in-depth crash investigation, analyze self-reporting surveys, and review observation data.

Dr. John D. Lee, Professor -Dept. of Industrial and Systems Engineering, University of Wisconsin-Madison (*His first slide was an interesting exercise in illustrating cognitive distraction. Although the wording is not accurate, the example that follows gives you the idea. Do note that reading it in color is the only way it works to give the intended effect.*)

PLEASE DISTRACTED DON'T DRIVERS DRIVE SUCK
DISTRACTED ASS AND FOR SAVE ALL LIVES INVOLVED

Sources of Distracted Driving: Driving (things that happen in the course of simply driving) and non-driving (external sources); Built in (radios, cd players, navigational devices, etc.) and carried in (cells, laptops, newspapers, food, etc.); Passengers particularly teens/young drivers; and Role of the person behind the wheel (Changes from driver to mom, worker, eater, etc.)

Types of Distracted Driving: Visual - eyes off the road; Manual - hands off the wheel; Cognitive - mind off the road. Texting brings all of these factors together and therefore is the most dangerous of all. *(He then showed a graph on Distraction Outcome which if possible to obtain, recommended to do so.)* There has been over a 500% increase in distracted driving over the past two years according to Nelson. Technology is developing at a rate faster than legislation can address it.

Bruce Magladry, Director - Office of Highway Safety National Transportation Safety Board Used the data from the National Crash Data from the FARS Repeat. In 2008, 5870 fatalities occurred, which accounted for 16% of all fatalities, up from 12% in 2004. 11% involved in those fatal crashes were reported to be distracted driving at the time of the crash. 39% of these distracted drivers were under 30 years of age. It is a safe assumption that the occurrence of distracted driving is underreported.

According to the GES (General Established System), in 2008, 515,000 people were injured in crashes involving distracted driving which equates to 22% of all crash related injuries. The data from FARS and GES is obtained from police reports, which have various holes in them, but are working to more unify that reporting system. He then detailed three crashes that the NTSB has investigated, first involving two SUVs, with a distracted driver losing control of the vehicle while speeding in a gust of wind, the second involving a passenger bus operator who, while on the cell neglected to follow the lead of the ahead of him to shift to the higher clearance of the middle lane subsequently not meeting the clearance, and the third of two rail trains colliding in CA, while the engineer of one was on the cell causing it to derail and the other subsequently wrecked because of it.

Kristin Backstrom, Senior Manager - AAA Foundation for Traffic Safety

For the past 60 years, AAA has undertaken studies of traffic related problems. Many things cause distractions, radios, yelling at kids, putting on make up, eating, etc. We need to educate the public. Not only on cell/text usage, but need to focus on all forms of distraction. America was once the safest country for road travel and now we fall far behind. In a survey conducted of teens, they felt that DRIVING was the distraction to other things they wanted to do in cars. *(Slide of cartoon Distracted Driving - The New Norm)* 2009 findings for a self-reported survey - Serious threats on the road: 90% distracted driving; 87% other drivers texting; 58% talking on a cell phone; and 90% drunk driving. Yet, two out of three people reported that they engage in some form of these behaviors. It is a 'Do as I say, not as I do' mentality. Use of cell phones have increased every year. For example, senior citizens in 2003 used cells at a rate of 1 in 10 and that has now increased to 1 in 5. Four out of five of those involved in the self-reporting said they regularly use cells while driving and this spans all age groups. This is a broad reaching behavior that will be beyond challenging to change. Every 13 minutes a person dies on our nation's highways. AAA announced a national push to ban texting while driving in all 50 states. They will launch Heads Up Driving Week on October 15th to call awareness to this crisis.

John English, General Manager - Utah Transit Authority

Busses and trains have a different operating environment. Passengers demanding things like lighting and wifi on public transit, serving as an additional distraction. We still rank way below motorcycle accidents. In fact we ought to be concerned with the growth of motorcycling. *(LMW note: This was the ONLY mention of motorcycles throughout the entire day!)* Bus drivers face particular issues - congestion and hazards, they must stay on schedule, road and lane configuration are designed for smaller vehicles, the driver sits

forward of the front wheels, turning controls are located on the floor, the cab itself is an issue,, constrained driving position, lighting, glare, communicative system, stop announcements, ticket sales, climate control, passengers cause many instances of distraction, basically they operate in an almost constant state of distraction.Changes come very swiftly. Since the American Disability Act the stop announcement is now automated, along with electronic fare collecting are on most of the busses in the country today. We are in constant training. Dealing with side collision avoidance technology, , the ability to impose automated stopping technology, but they are not too keen about taking the operators out of the critical reaction mode. We impose strict rules on our operators concerning no eating, drinking, reading, talking on phones, except company issued ones for work related reasons only. Passengers are the best monitoring system. They are quick to report any infraction. Trains are a bit different as they are more automated. A good motto would be, "If you need to text or talk, do it on transit."

Questions/Discussions (LMW note: I didn't do all questions as many were redundant of what was previously covered.) What about technology that has lock out capabilities? The most effective is that which guides drivers from moment to moment and provides feedback at the end of the drive. Do note that hands free is not risk free. Judicious drivers engage in conversation. Banning hands held may subtly imply that hands free are safe and therefore lessen judicious behavior. Driving is a privilege not a right. We need to accept that responsibility when behind the wheel. What now appears to be sci fi now will be reality in the next few years. Technology can make drivers more dependant on devices and less augmented on being a driver. In general, most people think they are better than the average driver. Electronic billboards - should they be banned/regulated/ Haven't seen any research to show much. Of the little bit there is out here, the FHA believes there is some cause of distraction. An underreported cause of crashes is drowsy driving. Should this be considered a part of distracted driving? Fatigue, and age should be recognized as a threat along with alcohol, speed and lack of seat belt usage. Starting education early is recommended. Hands free give false sense of security. According to the Carnage Mellon study, 38% of the cognitive skills go right to use device when hands free are used. We are likely to see more of graduated licensing systems become more commonplace.

Panel: Research Results - How Risky is Distracted Driving?

Moderator: Rose McMurray, Acting Deputy Administrator-Fed. Motor Carrier SafetyAdministration How do we study the nature of distraction? What type of distractions are most risky? How does distraction effect driving? There is leagal authority to regulate trucks and busses. Distracted driving is especially problematic with large vehicles due to the extra time/distance required to stop .

Dr. Ann Dellinger, Lead - Motor Vehicle Injury Prevention Team Centers for Disease Control and Prevention National Center of Injury Prevention and Control

Measurement of Distraction

Measurement of Crash Risk

		How often, long,
complex?		
Outside Vehicle	Inside Vehicle	Drivers willingness to
engage		and when?
Ways of Measurement		Factors Examined
Observe		speed
at fixed speeds		following distances

instrumented vehicles	braking
Stimulators (lab)	lane keeping
fixed	steering
Radar	eye movement
Crash Data	reaction time
Ask drivers (simulators)	throttle position
mental workload	gap acceptance
driving performance	physical signals (heart rate and
skin as	measurements of stress)

All have some advantages and some disadvantages. Ten measurements used for sources of distraction and how they compare.

Dr. Tom Dingus, Director - Virginia Tech Transportation Institute
Presented findings of a studies of Large scale Naturalistic Driving consisting of over 600 drivers who operated thier own vehicles equipted with specialty instruments and numerous videos, over seven million miles, and 100,000 driving hours and collected this data. It found that human behavior and performance accounted for 90% of crashes, which consisted of impairment, inattention, drowsiness, and judgement related error. VTTI Results: Vision is king. Visual non driving tasks should always be carefully considered. Cell phone texting can quickly become an epedemic. Headset is no safer than handheld. Voice activated hands free devices are less risky.Teens engage in complex non driving tasks with much greater frequency andin riskier situations with far less developed skills than adults. *(The next two charts were quite informative but not up long enough for me to capture them. First was entitled "Non-Driving Task Related Crash/Near Crash Estimates .)* Research recommendations:Primarty law banning handheld wireless devices, (cells, mp3s, an headset with non true hand held); Significant fine, pints and punishments for violation. This would exclude emergency communication. Most of the countries outside of the U.S. already have this. Regulation limiting the functionality of usually demanding in-vehicle devices, manual distortion entry, and all keyboard tasks, include all complex reading tasks.

Dr. William Horrey, Chair - Surface Transportation Technical Group, Human Factors and Ergonomics Society and Research Scientist Center for Behavioral Sciences,Liberty Mutual Research Institute for Safety Focus on conversation - cognitive aspects. Inattentional blindness - Incomplete or failure to process information that has been fixated. Implications for looked, but didn't see conclusions . Failure to process information due to distraction.

Dr. Key Dismukes, Chief Scientist - Human Systems Integration Division, National Aeronautics and Space Administration, Ames Research Center
Multi tasking is possible but there are limitis learned from aviation. Our ability to do two tasks simultaneously is extremely limited. In most situations, we must switch back and forth. Task switching is not simultanious. There is a time lag while disengaging and reengageing. Resuming an interupted task also produces a time lag. Error rates are higher immediately after reengageing.

Questions/Discussion

A 2000 car police reported study will be conducted with 900 - 1000 crashes and about 1500 near crashes. It will be a naturalistic study and will be underway soon, to be completed in a few years. The cognitive distraction is very strong in the real world and this study should be quite helpful towards attaining greater knowledge in that area. Behavior is also

an area that would benefit greatly with much more research. There are Six Million crashes in the U.S. Annually. Most cars on the road today have event data recorders. The owner of the vehicle is the owner of that data. In the event of a crash, it can be released or subpoenaed. In vehicle technology should be more widespread, especially alcohol detection related devices. 60% of all call related crashes occurred ever before a word was spoken. 40% of those were when attempt to answer a call and the other 20% when dialing out.

Congressional Presentation

Senator Charles E. Schumer, New York Ten years ago texting didn't even exist and now it has exploded into a mass epidemic. As of last December, 110 bills were discussed concerning this. Cars travel about 100 yards, the length of a football field in five seconds, which is the average time a college student takes their eyes off the road while texting. Because of the grave nature of this issue, I have authored the Alert Drivers Act, which would mandate states ban texting or face withholding of 25% of highway fundings. Some folks are reluctant to endorse this because of the steep penalty, but we need a ban on texting and we need it now. The fed gov can't outlaw a ban on texting; only the states can. We can't simply support the concept of a ban on texting. We need to have a ban on texting that can be enforced with steep penalties for states that don't support the Act.

Senator Amy Klobuchar, Minnesota

She was elected in 2006 and was a big proponent in stopping the lead filled toys from China, and formerly was a prosecutor in the Minneapolis area. "Our laws can't keep up with technology." Her passion is high for distracted driving because her dad was a drunk, who has been sober for quite some time now, but she had to "take the keys out of his hands many times" and knows how helpless one can feel. While a prosecutor she made it a felon to kill someone while driving in a distracted state and has much sympathy for the victims. She is shocked and appalled that none of the states have enacted criminal penalties for a driver who kills another while texting. She is a proud co-sponsor of the Alert Drivers Act.

Panel: Technology and Distracted Driving

Moderator: Peter Appel, Administrator - Research and Innovative Technology Administration

This panel will focus on issues caused by technology and on efforts that have been made (or are needed) to assess and reduce the negative impact of distractions caused by current and planned devices. It will also consider technology that can prevent the consequences of distraction. How can technology mitigate distraction and contribute to safety? Concepts are rapidly changing. Technology that can mitigate safety are lock out devices that lock out calls and operational usage of the devices while driving. There is technology that warns of imminent danger, and the likes. How do we make sure this massive amount of new technology that is designed to help us doesn't end up hurting us?

Dr. David Eby, Research Associate Professor and Social and Behavioral Analysis -University of Michigan Transportation Research Institute

Social factors: Text usage increasing - doubled in the last five years; Roads are getting more congested; Young drivers are the most frequent users of nomadic technology; and Our population is aging. Technology and Distracted Driving: Any technology that engages a driver is distractive. Multiple factors can influence the level of distraction and increase risk. There is little research on other technology other than cell phones. Benefits of Technology: Manage the distraction source; Workload management systems; Reduce workload of driving task (navigation, adaptive cruise control, anti-lock braking, lane

management). Mitigations to negative outcomes of distractions: Crash warning systems, FVBSS, Auto notification systems. Still have great research needs for data - we need better and more data, need to research the model of distracted driving, and impound inferior designs. Products should be designed so that older adults can operate them easily then it will be no problem for the rest of the population.

Rob Strassburger, Vice President - Alliance of Automobile Manufacturers

Manufacturers are on the cutting edge to put people first. "Helping to Keep Eyes on the Road" is top priority. Vehicle integrated technology is designed to keep the eyes on the road, use of peripheral vision and line of sight vision. 80% of crashes occur when the operators eyes are not on the road. Traffic fatalities actually fell more than three times of the VMT. Current technology - Auto crash notification, Road hazard notification, real time conditions. In the near future, you can expect wireless communication between vehicles, real time road navigations, crash avoidance, including Co2 reduction. The Alliance supports a three point plan: Enforcement, education and continued technology that further promotes understanding of driver behavior.

Steve Largent, President and Chief Executive Officer - CTIA - The Wireless Organization® "With Wireless, safety is YOUR call." Wireless offers many benefits. Over 290k calls to 911 and emergency services daily, but the industry also recognizes the lack of safe usage. Public outreach, consumer education and legislative advocates. They support legislation that prohibits texting and non or inexperienced driver restrictions along with graduated licensing restrictions. Passing laws is not enough. Education and outreach are also needed. They have been doing PSAs since 2000 and updated them in 2004 and again in 2007. A new commercial will air nationally in the coming weeks geared towards teens and parents to make them aware of what they may encounter.

Michael Petricone, Senior Vice President - Government, Consumer Electronics Association Association is made up of over 2000 corporate members who make products that keep people informed and entertained. It all began in 1924 with the cutting edge technology of putting a radio in an automobile. Safety is paramount; Vehicle navigation removes the need to read maps; Hands free allows drivers to keep their hands on the wheel; Wireless networks will allow cars to communicate about hazards; and Special braking applications and much more with the upcoming ITS. Policy approaches: Must be driven by science; Take into account future innovation (promote voice driver technology); Should focus on behavior not technology (eating, drinking, smoking, reading, billboard watching, nail painting, etc.). Driver education is critical. Digital Driver Organization is doing their part on how to reduce distractions and reach destinations safely.

Rod MacKinzie, Senior Vice President - Government Affairs, Consumer Electronics Association Committed to the use of smart technology to improve efficiency and safety of our transportation system. Driver distraction is our newest oldest problem. This is a double edged sword. Improved vehicle safety while increased potential to distract. Cells, texts, emails are examples of things that can easily distract. Air bags, ABS, stability control, GPS, and auto crash avoidance are good things that have come out of smart technology for the driving public. Blue tooth technology and USB technology allows safer operation, text to speak and text by voice applications are soon to be revealed. Lane departure warning, preemptive braking, (radar to note if too close to car ahead and take over when operator fails to do so), fatigue detectors, IntelliDrive (the next generation of safety systems, some of which will satisfy and open up a whole new category of safety units) are all positive advances that have come out of smart technology. Common to all is the need for a careful and seamless transition for people and cars. Accurate adoption of new safety technology, increasing R & D for the next generation of safety systems to further address distracted drivers. Look for IntelliRider and Smart Cities.

Questions/Discussions

Would you support releasing of all data when a crash is involved? Overwhelmingly yes, but there are other issues involed, more so than blacking out the names of the individuals involved to overcome. OnStar has the capabilities to relate cell phone usage data to crash data. Are consumer electronic devices being fully tested before they hit the market place? Big fast talking answer that really said, no. We haven't heard much about enforcement. Is there a way that technologies can be used in conjunction with enforcement? Many vehicles have the capabilities to share all kinds of data which could have substantial effect. You must remember though that that data is the property of the owner of the vehicle and steps must be taken in order for that to not be in effect. AN individual suggested leave a message on your cell phone, "In the interest of safety, I do not answer my phone while driving. I appreciate your call and will return it as soon as I can safely do so."

Greg Zaffke inquired of Rod MacKinzie - Is there any research being done for blind spot checking technology or drivers working to the limits of technology? If these are available, would people take greater risks depending on the these technologies to protect them? Answer: While it could happen, it will probably not to any great extent.

Individual expressed his extreme disappointment with all of the industry. You are not buying safety, just a slogan. *(He started slamming them pretty hard and then my dman sound went on the blink.)* Of course the sound came back when the pannelist answered, "I don't consider it to be a problem."

Is there anything being done to make the technology now available in luxury cars more affordable to the general puopulace any time soon? Yes, trying to progress this in the marketplace and get it out as quick as possible but also want to manage its release.

Conclusion of Day One

The day was rehashed. Again, no sense in being unnecessarily redundant. Tomorrow should be a more interesting day and hopefully not quite as long. It is possible that I may not be able to get the notes out tomorrow as I have two meetings after the conclusion of the Summit.

-Lynn M. Wesley

01 October 2009