Remarks prepared for

David Strickland

Administrator

National Highway Traffic Safety Administration

Enhancing Driver Situational Awareness without
Driver Distraction – IntelliDrive and Cooperative
Vehicle Safety Panel Discussion

Las Vegas, Nevada

January 7, 2011
Good morning. Thank you, Steve (Bayless). I am looking forward to a productive discussion on the issue of Distracted Driving.

NHTSA has been very concerned about the issue of Distracted Driving for many years, but the Agency, and the Department of Transportation are particularly concerned about the impact that new technologies may have in increasing driver distraction.

In 2009 we estimate that 5474 people were killed in distraction-related crashes and of these, 995 were cell phone-related.
NHTSA has been involved in distraction research for many years. Many of the activities have been focused on understanding the extent and nature of the distraction safety problem, applying appropriate measurement techniques to quantify the harmful effects of technology distractions on driving performance, and identifying potential countermeasures.

We are a data-driven organization and we believe in sound science. We use the data and science to make informed decisions about what programs to support or what actions to take to reduce the high toll that traffic crashes have on the American public.
Programs that have provided us with useful data on distraction include the National Occupant and Use Survey which provides national estimates on the number of drivers using electronic devices (e.g. cell phones), Crash Causation Studies (e.g. NMVCSS), and Naturalistic Studies (100-Car).
And we plan to use all the resources at our disposal to move forward on our plan for dealing with Driver Distraction. We launched our Distraction Research Plan last year, and outlined a comprehensive set of activities that will govern our approach. First and most importantly, we will continue to improve our understanding of the problem—that’s where the data comes in.
We will develop voluntary guidelines to help reduce the driver workload from in-vehicle systems. We will examine technology to keep drivers safe – for example, crash avoidance systems or distraction monitoring systems. We will continue to work on increasing public awareness to recognize the risks and consequences of distracted driving.
In terms of keeping those potentially distracted drivers safe, let me talk a bit about our efforts in the Department’s Intelligent Transportation Systems Program (ITS) – and specifically about the Vehicle-to-Vehicle Communication Program. This program is researching vehicle communications technology to enable vehicle-to-vehicle (V2V) safety systems as well as vehicle-to-infrastructure (V2I) connectivity.
Anyone who has strolled the show floor next door already knows that new technologies, many of which are being integrated into vehicles already, are coming at an astonishing pace. While these are mainly infotainment type technologies that may contribute to distraction, there are other types of technologies that offer great hope for enhancing driver awareness and increasing safety in the future.
Specifically, I’m talking about vehicle-based technologies such as Forward Collision Warning Systems, Lane Change Assist, Advanced Object Detection Systems, etc. These alert drivers in a potentially critical situation (such as when distracted) to help prevent collisions with other vehicles. Some of these technologies may become capable of detecting vulnerable road-users such as pedestrians and cyclists. We hope to encourage the demand for, and use of, these technologies.
We are working to determine the future safety benefits of vehicle-to-vehicle communications. NHTSA has entered into a cooperative agreement with an industry partnership including, Ford, General Motors, Honda, Hyundai-Kia, Mercedes-Benz, Nissan, Toyota and Volkswagen that will develop and evaluate the effectiveness of safety systems that use vehicle-to-vehicle communications. We’re currently in the second year of a 3-year effort with this group.
This project will ensure that vehicle communications are interoperable across all vehicles regardless of make or model. The effort will also help us to determine the minimum performance levels and safety impact of safety applications enabled by V2V. We believes this technology has the potential to save thousands of lives each year while at the same time offering the opportunity to reduce congestion and provide other services to vehicles owners.
But crash avoidance safety technologies can only go so far. Drivers and other road users must take an active role in safety — their own and that of those sharing the road. Vehicle occupants need to buckle up and keep focused on the task of driving.

This is why the onslaught of infotainment technologies is particularly alarming. My intent is for NHTSA to develop an evaluative framework to position the Agency so that it is not reacting to every technology as it pops up and becomes a distraction. NHTSA needs a framework that clearly defines the danger zone for the driver, and allows NHTSA to keep pace with the industry, rather than play catch-up.
NHTSA will not take a back seat while new telematics and *infotainment* systems are introduced. These have too great a potential to create more and more distraction for the driver. We will be taking a hard look at guidelines or requirements for these systems. We have challenged the auto industry and the cell phone industry to work collaboratively with us to keep the driver focused on his/her required task: driving.
A key part of that effort is our work to develop a set of
distraction guidelines. Our initial focus is on
developing guidelines for visual-manual interfaces for
in-vehicle technologies and we aim to publish these
guidelines this fall. From there, we will tackle
guidelines for portable devices by 2013, and guidelines
for voice interfaces by 2014.
Vehicle-based distractions are concerning, but we are facing a new world with portable devices, and the risks they pose for driver distraction. In many cases, the interfaces on these devices are not optimized to be used by a driver, even though they have functions and applications that are intended to be used in a vehicle. And the fact that you have to hold them and manipulate them means the driver has to take his hands off the wheel.
We look forward to working with the consumer electronics industry as well as many other stakeholders to develop these guidelines. Manufacturers of these devices need not only wait for guidance, as they can start now by using good human factors design principles in their products.
For example, manufacturers should consider a “car mode” for portable devices, such as smart phones, similar to “airplane mode.” When these devices are brought into a vehicle and the vehicle is moved out of park, or above a couple miles per hour, certain functions could be locked out – functions that are not safe to use while driving. Some devices already have this function. This mode could potentially simplify other tasks so that they are less risky. Research will help us establish what should and should not be part of the “car mode.”
Ultimately, it is up to the driver to make safe choices when getting behind the wheel of a vehicle. But manufacturers can help the driver by designing products with safety in mind.

Until these guidelines are in place, we encourage portable device manufacturers to use good human factors design principles in their design.

Thank you.