**Remarks prepared for**

**David Strickland, Administrator**

**National Highway Traffic Safety Administration**

**For the**

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**Good morning. Thank you, John, for that generous introduction [Introducer: John Sours, Administrator of the Governor's Office of Consumer Protection].**

**I am truly honored to be here with all of you today. I want to speak about our common interest in highway safety, about the impacts of emerging technology on vehicles and drivers alike. There are many compelling**

**and positive developments on the horizon that are poised to transform vehicle design and the driving experience. Some, like the Google autonomous vehicle, seem like products launched from the future, creations of what we used to call science fiction.**

**In fact, automotive innovations are the offspring of well-defined, incremental research investments—in government and the private sector—supported now by an unprecedented array of data tools and capabilities. We are beginning to realize the immense potential of the new data we're seeing.**

**Today I want to focus on a few examples of where our research is taking us. I won't be talking about flying cars, but about a preferred future of highway safety**

**that has emerged in the past few years. This is exciting territory for NHTSA because of the tremendous safety implications involved.**

**As you know, at NHTSA we have a single-minded focus on highway safety, saving lives, and preventing injuries. Our programs and initiatives emerge from data-driven research activities that include vehicle design and testing as well as driver behavior. Our work has been and will continue to be based on sound data.**

**NHTSA is working to create a new safety era that will feature safer vehicle designs and apply emerging technologies. In fact, we've been partnering consistently with the industry on crashworthiness issues for over 40 years. We have made great strides in**

**protecting vehicle occupants during crashes and will continue to maintain that focus.**

**But now we're also exploring a new horizon, where the best protection against a crash is to prevent the crash from happening in the first place. We're focused on developing the technological tools to make crash avoidance a reality.**

**Electronic Stability Control (ESC) is a good example of our progress toward that goal. In 2009, ESC saved an estimated 684 lives among passenger vehicle occupants. Since September 1, 2011, all new passenger vehicles must be equipped with ESC. As the overall passenger vehicle fleet becomes increasingly equipped with ESC, the lives-saved estimate will continue to rise.**

**We are now extending our work on ESC to the heavy vehicle sector—and our research has shown that ESC will have a powerful impact on safety in the trucking and motor coach industries. About two-thirds of all heavy truck occupant fatalities occur in rollover crashes.**

**NHTSA has now completed a comprehensive performance evaluation of ESC on tractors and motorcoaches. We have developed a cost-benefit analysis utilizing computer simulation and modeling tools. And we have also developed effective test procedures and performance criteria for this technology.**

**At this stage, ESC seems like an "old" technology compared to what's coming. At NHTSA we expect that crash avoidance systems, including the use of vehicle-based sensors to provide warning and automatic braking in forward collisions, will be built upon the foundations of ESC to aid the driver and reduce crashes. Our vision is that Vehicle-to-Vehicle (V2V) communications technologies will make crash avoidance the way of the future.**

**We are working to create this future by partnering with the Research and Innovative Technologies Administration (RITA) Intelligent Transportation Systems Joint Program Office in testing the next generation of vehicle-to-vehicle communications that may soon prevent many crashes from occurring.**

**V2V technologies enable cars to automatically send and receive warnings about impending crashes so that drivers can take action to avoid a collision. This technology has the potential to address approximately 80 percent of the vehicle crash scenarios involving unimpaired drivers.**

**Since 2011, NHTSA and our research partners have been conducting Safety Pilot driver clinics that measure how drivers respond to in-car collision warnings such as "do not pass" alerts, lane-change messages, and warnings that a vehicle ahead has stopped suddenly. The driver clinics were designed to evaluate cars equipped with vehicle-to-vehicle Dedicated Short Range Communications (DSRC) systems in a controlled environment where researchers observed drivers' responses.**

**We've learned that an overwhelming majority of drivers who have experienced these safety features (9 out of 10) have a highly favorable opinion of their safety benefits and would like to have them on their personal vehicle.**

**In late August 2012, Secretary LaHood launched the second phase of our V2V and V2I research—a real-world field test that will continue through the summer of 2013. This effort is based in Ann Arbor, Michigan, and includes approximately 2,800 cars, trucks, and buses equipped with vehicle-to-vehicle communications technology.**

**The research includes vehicle original equipment and aftermarket equipment to test the potential of early safety benefits. NHTSA is working closely with the Federal Motor Carrier Safety Administration and the Federal Transit Administration on the heavy vehicle and transit bus aspect of our research.**

**All of the test systems and devices emit a basic safety message 10 times per second that forms the data stream that other in-vehicle devices use to determine when a potential traffic hazard exists. This information, when combined with the vehicle's own data, provides highly accurate data for crash-avoidance safety applications.**

**The Safety Pilot Model Deployment will obtain empirical test data for determining the effectiveness of each of the technologies for reducing crashes. These capabilities will also be extended to a limited set of applications in which vehicles will communicate with highway infrastructure.**

**Our research is showing that these safety applications may significantly reduce collisions that typically occur in the real world, such as crashes at intersections or when changing lanes.**

**Ultimately, blending V2V communications with increasing levels of automation could result in the most dramatic safety improvements in our nation's driving history. That's why we think we are on the brink of an**

**amazing era in automotive safety. But the challenges are substantial: the research must be thorough and industry and government must work together to get it right.**

**The information collected from both phases of the Safety Pilot, and other key research projects, will be used by NHTSA to determine by 2013 whether to proceed with additional activities involving connected vehicle technology, including possible rulemaking.**

## ADVANCED AUTOMATIC CRASH NOTIFICATION

**I can't wait to see the benefits of V2V implemented throughout the fleet. But until that day comes, we need to refine our response to saving lives in a world of frequent crashes. I want to speak now about how**

**advanced technology is saving lives after a crash occurs. The development of Advanced Automatic Crash Notification (AACN) underscores the benefits of committing to robust R&D.**

**Development of this technology began more than a decade ago with onboard-automatic crash notification (ACN) systems. These systems enable medical personnel to respond to crashes more rapidly by immediately notifying emergency responders of a crash and its location.**

**That initial innovation has led to more advanced technology and the evolution to advanced ACN systems (AACN). Today, when a crash occurs on an AACN-equipped vehicle, in addition to providing rapid**

**notification of the crash, the systems now have the capability of transmitting vehicle sensor data together with a prediction of injury severity.**

**The vehicle sensor data and injury severity prediction communicated via an AACN system enables the potential for better identification of and faster response to serious motor vehicle crashes and improved decisions regarding the transport and care of the associated occupants. The resulting reduction in time to definitive medical care for seriously injured occupants has the potential to save a significant number of lives.**

**Additionally, studies show that getting the right people to the right care can significantly increase their chances of surviving a serious crash. The Centers for Disease**

**Control and Prevention have been developing field triage protocols to help emergency responders determine whether or not a crash victim needs trauma center care. The injury severity prediction provided by AACN systems is included in the latest version of this field triage protocol.**

**DISTRACTION**

**Sometimes technology itself can create serious safety problems. That is certainly the case with distracted driving, when people persist in texting and talking on their mobile phones when their full attention should be focused on the task of driving.**

**NHTSA's National Motor Vehicle Crash Causation Survey shows that in about 95 percent of serious crashes the**

**event that precipitated the crash was attributed to driver error. We're no longer talking only about drivers who are speeding or driving while intoxicated. We now include distracted driving as an equally deadly decision.**

**For several years NHTSA has been building momentum against the epidemic of distracted driving, which poses significant safety risks, especially for younger drivers and passengers. Teenage drivers are doubly vulnerable: Not only do they lack driving experience, they are also deeply immersed in the culture of digital connectivity—texting and using cell phones—that is antithetical to the focus required to be a safe driver.**

**Secretary LaHood has led the charge to make distracted driving a national issue. In 2010, at least 3,092 people**

**in the United States lost their lives in crashes where distraction was a factor. An estimated 416,000 were injured in motor vehicle crashes involving distraction.**

**The toll of distraction-related deaths and injuries is unacceptable for all of us at NHTSA and we're working hard to reduce it. Distracted driving does not "just happen"—it's a dangerous decision with deadly consequences. It is also 100 percent preventable.**

**When NHTSA got involved in this issue three years ago, distracted driving wasn't on the map for most people. Only 18 states had anti-texting laws and another seven states had complete bans on the use of hand-held devices. Now, 39 states have texting bans and 10 ban all hand-held phone use.**

**In June, DOT announced its "Blueprint to End Distracted Driving," which outlines a path forward for our partners that builds on the work we've done to date. We know that passing good laws and enforcing them is a winning combination. It's a model that has worked well for a number of NHTSA campaigns, including our "Click It Or Ticket" seat belt initiative and our annual "Drive Sober Or Get Pulled Over" campaign.**

**This approach has also demonstrated success in two distracted driving pilot projects that DOT sponsored in Hartford and Syracuse last year. We are now taking this high-visibility strategy further: Delaware and California are receiving a total of $2.4 million in federal support to initiate expanded "Phone in One Hand, Ticket in the Other" pilot projects focused on increased law**

**enforcement, public education, and a sound scientific evaluation.**

**As you know, auto manufacturers are introducing numerous electronic devices into their new model vehicles, increasing the potential for dangerous levels of distraction. Earlier this year, NHTSA began development of an evaluative framework for in-car technologies. In March, we conducted hearings across the country on our proposed guidelines and gathered responses from automakers and other stakeholders.**

**We are now finalizing specific guidelines for automakers to help them produce in-vehicle electronic devices that provide the features consumers want without interfering with the driver's focus or sacrificing safety**

**by distracting the driver's attention. We're looking ahead to a collaborative solution that directly addresses the dangerous connection of electronic devices to distraction.**

**Our foremost goal is to reduce the complexity and amount of time it takes to use onboard electronic devices. We recommend that devices be designed so that they can be operated with only one hand (leaving the other for steering). We also recommend that some devices be designed so that they can only be operated by drivers with limited glances away from the road, and that certain features not related to driving be disabled.**

**Thank you so much for the opportunity to speak today. I would be happy now to take your questions.**