

**Remarks Prepared for
Ronald Medford, Deputy Administrator
National Highway Traffic Safety Administration
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“The Future of Vehicle Safety & Fuel Economy and the
Role the Tire Industry Will Play”
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Good morning and thank you for inviting me to speak today. This event never fails to provide opportunities to explore technology issues, industry trends, and ideas about the future.

Today I want to give you an overview of NHTSA’s perspective on vehicle safety issues, the Administration’s fuel economy objectives, and the

important role the tire industry has to play in both of these areas.

The next steps in automobile safety are leading us to fulfill the promises of emerging technologies and new research at a rapid pace. At NHTSA, we approach the future with a consistent emphasis on safety and innovation that plays out across a variety of issues.

Let me focus first on the goal of increasing fuel economy, a game-changing national effort that is high on the Obama Administration's agenda and will continue to have considerable implications for the tire industry.

In July 2011, President Obama announced an historic agreement with 13 major automobile manufacturers to increase fuel economy to an estimated 54.5 miles per

gallon equivalent for cars and light-duty trucks by Model Year 2025, if all of the improvements are made with fuel economy-increasing technologies.

After three decades without significantly raising fuel-efficiency requirements, NHTSA and the Environmental Protection Agency have developed the first-ever national program that harmonized fuel economy and greenhouse gas standards for light-duty vehicles for model years 2012 through 2016.

Under those standards, we estimate that passenger cars and light trucks would be required, on average, to increase from 27.6 miles per gallon in 2011 to 34.1 miles per gallon in 2016.

We have also proposed fuel efficiency and greenhouse gas emissions standards through model year 2025. DOT

and the EPA worked closely with auto manufacturers, the state of California, environmental groups, and other stakeholders to ensure that the standards we proposed will be achievable, cost-effective, and preserve consumer choice.

NHTSA's proposal will increase the stringency of standards for passenger cars by an average of over four percent each year for Model Years 2017 through 2025. Standards for pick-ups and other light-duty trucks would increase an average of nearly three percent annually for the first five model years and an average of over four percent annually for the last four model years.

When combined with other historic steps the Administration has taken to increase light-duty vehicle energy efficiency, the Model Year 2017-2025 proposal is estimated to:

- **Save American drivers more than \$1.7 trillion at the pump by 2025.**
- **Reduce America's dependence on oil by an estimated 12 billion barrels, and, by 2025, reduce oil consumption by 2.2 million barrels per day—enough to offset almost a quarter of the current level of our foreign oil imports.**
- **Slash six billion metric tons in greenhouse gas emissions over the life of the Administration's programs.**

At NHTSA and the Department of Transportation, we think electric vehicles have an important role to play in our continued goal of increasing fuel efficiency, decreasing greenhouse gas emissions, and decreasing dependency on foreign oil. We fully support President

Obama's goal of increasing the number of electric and plug-in hybrid vehicles on the road in the United States.

Potential safety concerns associated with lithium-ion chemistries are different from those associated with other fuels and technologies. That is why we are focused on this area: conducting crash tests of new electric vehicles, collaborating with U.S. and international partners to promote EV safety, and conducting Lithium-ion battery safety research.

We are actively testing new electric vehicles introduced for sale in the U.S. to ensure compliance with our existing safety standards and to provide consumers with information about the crash protection offered by these vehicles.

We are also working with our international partners on electric vehicle safety. In November 2011, NHTSA announced, together with our partners in Japan and the European commission, a plan to work toward a Global Technical Regulation (GTR) on electric vehicle safety.

On May 18th, NHTSA will host an Electric Vehicle Safety Technical Symposium. We are inviting presenters from DOE, voluntary standards bodies, and automobile and battery manufacturers to discuss a wide range of safety related issues.

Next Steps for Automobile Safety

NHTSA maintains a data-driven and research-oriented focus that touches every aspect of driving safety. We envision, and are working to create, a new safety era

that will revolve around safe vehicle designs and emerging technologies.

ESC FOR HEAVY VEHICLES

NHTSA has been working steadily to reduce the risk of loss-of-control and rollover crashes. Progress in braking technology has evolved from Antilock Brake Systems to Traction Control Systems and now Electronic Stability Control. ESC provides enhanced stability control by detecting potential over- and under-steer conditions and automatically assists drivers with differential braking and throttle control.

In 2009, electronic stability control saved an estimated 684 lives among passenger vehicle occupants, and this is just the beginning. Since September 1, 2011, all new passenger vehicles must be equipped with ESC. When the entire passenger vehicle fleet is fully equipped with

ESC, we estimate that it will save up to 9,600 lives per year.

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 as well.

CONNECTED VEHICLE TECHNOLOGIES

While the Agency has worked on crashworthiness issues for over 40 years and will continue to progress in this area, we recognize that the future is in crash avoidance technologies and active safety. The best protection against a crash is to prevent it from happening in the first place. We are currently assessing Connected Vehicle technologies that have the potential to address

approximately 80 percent of the vehicle crash scenarios involving unimpaired drivers.

Our research is showing that these technologies could help prevent a majority of the collisions that typically occur in the real world, such as crashes at intersections or while changing lanes.

Beginning in 2011, NHTSA has been conducting Safety Pilot driver clinics in the first phase of a two-part research program jointly developed with the Research and Innovative Technology Administration (RITA) and in coordination with other DOT agencies. The second part of the Safety Pilot is being led by the University of Michigan Transportation Safety Institute in Ann Arbor. This is the model deployment part of the Safety Pilot. It will establish a real world, multimodal test site for enabling wireless communications among vehicles and

roadside equipment for use in generating data to enable safety applications.

The information collected from both phases of the Safety Pilot will be used by NHTSA to determine by 2013 whether to proceed with additional vehicle-to-vehicle communication activities, including possible future rulemakings.

FOCUS ON DRIVING BEHAVIOR

As many of you know, the latest data shows that in 2010 US highway fatalities fell to 32,885, the lowest level since 1949, despite an estimated increase of nearly 21 billion miles traveled. Since 2005, fatalities have dropped 25 percent. The trend is very encouraging, but for NHTSA the number of lives lost annually is still much too high.

DADSS

NHTSA is responding to a multitude of factors that contribute to the unacceptably high death toll. One of our most persistent and deadly traffic safety problems is alcohol abuse. In 2009, 10,839 people died nationwide in crashes involving a drunk driver. These deaths make up 32 percent of all fatal crashes.

In an effort to reduce these fatalities, NHTSA initiated a \$10 million, five-year cooperative research program in 2008 with the Automotive Coalition for Traffic Safety (ACTS), a nonprofit industry coalition funded by 17 automakers. The program, called the Driver Alcohol Detection System for Safety (DADSS), is developing non-

invasive technologies to quickly and accurately measure a driver's blood alcohol concentration (BAC). If the system detects the driver has a BAC at or above the legal intoxication limit (.08 BAC or higher), the vehicle will be disabled from being driven. Technologies developed under this project are envisioned to be voluntarily installed as an option on new cars.

Although DADSS research is still in the early stages, we are following a step-by-step, data-driven process to ensure that the end result is a highly unobtrusive, accurate, and precise system.

There is still much more work to be done, but we believe that a technology could be ready for general use and integrated into vehicles in eight to 10 years.

DISTRACTED DRIVING

We know that approximately 90 percent of vehicle crashes are due to driver error. And now, one of the newest and deadliest threats on our agenda is distracted driving. In 2010, more than 3,000 people in the United States lost their lives in crashes where distraction was a factor.

In response to the emerging threat, NHTSA has developed an evaluative framework for in-vehicle technologies. We have offered specific guidance to automakers to help them develop electronic devices that provide the features consumers want—without interfering with the driver’s focus or sacrificing safety by distracting the driver’s attention.

Our first goal is to reduce the complexity and the amount of time it takes to use onboard electronic devices. We propose to reduce drivers' distraction through new limitations on electronic devices. Among our key goals, we want to ensure that devices can be operated with only one hand (leaving the other for steering). We propose a two-second limit on eyes-off-the-road glances and a 12-second limit on total eyes-off-road time need to operate a device.

We also seek to limit both the amount of manual inputs needed to operate a device and unnecessary visual information in the driver's field of view.

Our second goal is to disable operations of various electronic devices while driving, unless the devices are intended for passenger use and cannot be seen or accessed by the driver, or unless the vehicle shift lever

is in park. These include visual-manual operations that can be a significant source of driver distraction, for example, text messaging, Internet browsing, navigation system destination entry by address, and 10-digit phone dialing.

THE TIRE INDUSTRY'S ROLE IN FUTURE VEHICLE SAFETY AND FUEL ECONOMY

The tire industry has an important role to play in our national objective of increased fuel efficiency with a focus on preserving vehicle safety. In his afternoon session yesterday, Chris Bonanti, NHTSA Associate Administrator for Rulemaking, presented a detailed overview of recent and proposed rulemaking, a background summary of NHTSA tire-related regulatory activities, and details about tire research testing. Rather than cover the same ground that he did, let me provide

a few highlights and then speak more broadly about the NHTSA-industry alliance going forward.

As many of you recall, in response to the requirements of the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act of 2000, NHTSA took several regulatory actions including:

- Updated and improved light vehicle tire performance standards**
- Issued the then-new standard for tire pressure monitoring systems for light vehicles with a GVWR of less than 10,000 pounds**
- Expanded the labeling requirements for tires**
- Established Early Warning Reporting requirements for vehicle and vehicle equipment manufacturers**
- The agency has issued an NPRM to upgrade the standard for heavy truck tires used on tractor**

trailers, combination vehicles, motor coaches, and other heavy vehicles. As a result of comments received, additional research and analysis is being conducted, and when that is done we plan to finalize the standard

- **Our ongoing work on tire aging continues. We are currently conducting research with an agency decision planned for 2012.**

In addition, the Energy Independence and Security Act of 2007 required NHTSA to promulgate rules establishing a national tire fuel efficiency consumer information program for replacement tires designed for use on motor vehicles to educate consumers about the effects of tires on fuel efficiency. A partial final rule was published in March 2010, a response to petitions for reconsideration was published in December 2011, a

public meeting was held in February 2012, and we are currently finalizing our research.

Another important area where the tire industry will play a big role is in the new fuel economy standards, both for passenger cars and for medium- and heavy-duty trucks.

NHTSA is fully committed to implementation of the new fuel economy standards for all vehicles including the regulation of the U.S. medium- and heavy-duty vehicle fleet—without compromising safety. We expect the proposed CAFE standards will drive tire technology innovations, developed by some of the folks in this room, that will improve rolling resistance by 30 percent compared to tires on the market today. And those improvements will come without compromising safety or wear characteristics.

The light vehicle CAFE program affects the tires that are fitted on new vehicles, which account for approximately 15% of the passenger tire market. NHTSA is also working on a Tire Fuel Efficiency labeling program for replacement passenger vehicle tires, which account for the remaining 85% of the passenger tire market. The Tire Fuel Efficiency labeling program is expected to increase the demand for more fuel efficient tires, and those tires will improve the fuel efficiency of existing passenger car fleet and the entire passenger car fleet as it ages.

In the near term, for 2014-18 Medium and Heavy Duty Vehicles, EPA and NHTSA expect that technologies available today will be used to reduce tire rolling resistance for “steer” tires and “drive” tires. EPA’s

SmartWay program has demonstrated that changes in trailer designs and the use of lower rolling resistance tires can significantly reduce fuel consumption from tractor trailers.

Through these programs, the industry is going to be challenged by original equipment manufacturers, business owners and consumers to assume a significant role in the fuel-efficient future by lowering tire rolling resistance for most every vehicle operating on America's roadways.

These are exciting times for the tire industry, the auto safety community and the Nation—to take a leap forward in fuel efficiency, make new advances in tire design and efficiency, and continue to improve highway safety.