Remarks Prepared for
David Friedman, Acting Administrator
National Highway Traffic Safety Administration
for
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"The Essential Engineer: Progress for Roadway Safety and Efficiency"

Good afternoon. Thank you, Stephen [Ridella] for that kind introduction. It's a pleasure to be back at SAE today. It feels a bit like home as I've been attending SAE conferences since the beginning of my professional career.

This is my first week, and my first major address, as NHTSA's Acting Administrator.

Since joining NHTSA last May, I've had the benefit and pleasure of expanding my understanding of NHTSA's safety agenda.

While my own background is in fuel economy and its nexus with safety, I came to NHTSA eager to engage in our core mission to save lives, prevent injuries, and reduce the economic costs of road traffic crashes. These past few months have impressed upon me the critical nature of the broad range of our work to protect drivers, passengers, cyclists, and pedestrians and its immediate impact on people's lives.

I have also benefitted greatly from the leadership and example of my predecessor, David Strickland.

David brought tremendous intelligence, excellent judgment, and constant good humor to his job as administrator. To know him is to respect him. Yet even if you didn't have an opportunity to spend time with David, the Agency's accomplishments during his tenure speak to the quality of his leadership and the hard work and dedication of our staff.

These achievements include:

- Historic standards that nearly double the fuel economy of cars and light trucks compared to model year 2010 vehicles;
- A comprehensive plan to advance technologies addressing drunk driving, seat belt use, and collision avoidance;
- The Motorcoach Seat Belt requirement to better protect drivers and passengers;
- Occupant ejection standards that will prevent hundreds of fatalities and injuries each year;
- Our first-ever policy statement concerning automated vehicles;
- Phase 1 of our distraction guidelines to limit the possible risk of in-vehicle technology;
- Approval of a Global Technical Regulation to address hydrogen-powered vehicle safety;
- The launch of an important Data Modernization Project; and,
- A new heatstroke campaign to protect young children.

And that's just to name a few.

When we look back at his tenure, you will be hard pressed to find a NHTSA administrator of greater impact, or one who accomplished as much as fast as David Strickland.

We will miss David greatly. But he leaves behind a leadership model and a NHTSA team that has us poised for tremendous advances on both safety and efficiency.

And, as the saying goes, if it isn't broken, don't fix it.

We will continue to be guided by our safety mission, as well as our nation's need to save energy and the importance of informed consumers.

We will continue to move forward as a data-driven agency, relying on sound science in our decision-making.

And we will continue our policy of constructive, ongoing dialogue with our industry and safety partners.

Today, automotive technology moves at the speed of light. We must use this substantive and open approach to stay ahead of that pace, so that when you're preparing the next leap forward in automotive safety and efficiency, you will find a regulatory environment at NHTSA that encourages innovation and speeds it to market.

And you'll be working with a team of professionals at NHTSA who are among the smartest, most dedicated in government. I rely on them every day and will continue to do so as we deliver greater safety and efficiency from the entire fleet.

As an engineer myself, I can't think of a more appropriate setting for my first speech as acting administrator than here with SAE. That's because today, more than ever, the engineer is at the center of the automotive world.

As we know from industry history, it wasn't always that way. Back when our parents and grandparents were buying their first new cars, the automotive industry was dominated, not by engineers, but by designers, such as the famous Harley Earl.

Model year after model year, Earl and others in the industry emphasized styling. And size. And chrome. Lots and lots of chrome.

Talented engineers delivered tremendous progress, but that was not always as obvious as the fact that the designers used that progress to deliver bigger, heavier cars with more amenities. And even more chrome. And, of course, a battle over the length of tailfins.

And who could blame them back then? The cars looked great. Many of those designs are iconic. Is there anyone who doesn't stop and stare when they see a '57 Chevy drive by on a summer's day?

Plus, consumers loved it. A bigger car signaled greater status. And we hadn't yet grasped the environmental costs or the fact that gas wouldn't always cost 30 cents a gallon.

The world has changed many times since then. So have consumers. But one trend has been clear: if the industry was to thrive, skilled engineers and their remarkable advances needed to be in the forefront.

Beautiful design will always catch the eye—that will never change. And consumers now have vehicles with amenities and size our parents could not have dreamed of. But in addition to good looks and amenities, consumers want safety and efficiency. They check the 5-Star Safety ratings and they make choices based on fuel efficiency. They want the sizzle and the steak—and engineers are making sure that the industry delivers both.

I believe strongly that this new automotive era—one that relies more than ever on the talent and innovation of engineers—is an essential part of the renaissance the industry now enjoys.

The auto industry has surged back to life. It's a success story built on the strength of its workers, the innovation of its engineers and management, and public policies that committed to the future of this vital sector of our economy.

Most of all, the automotive resurgence is due to the embrace of its consumers, who are adopting a whole new generation of technology that is engineered to make cars safer, cleaner, and more appealing than ever.

You, as engineers, have fueled this resurgence and this expansion of consumer choice.

When it comes to safety, American's driveways are starting to fill up with cars that have electronic stability control (ESC), rear view cameras, and more airbags than cup holders. Advances in materials and design are making cars safer in the event of a crash, and advanced technology is starting to actively help drivers avoid that crash in the first place. With more than 30,000 roadway deaths each year, these technologies represent enormous, and much needed, life-saving potential.

Your advances are also enabling the automotive industry to deliver more options for consumers to help them save money at the pump, cut America's oil use, and address the disquieting reality of climate change.

When it comes to efficiency, NHTSA has been doing its part to achieve President Obama's climate and energy security goals. We've already helped the Administration achieve the toughest fuel economy standards for cars and light trucks in America's history.

These standards require a near doubling in new vehicle fuel economy by 2025, which will save the average driver more than $8,000 in fuel costs over the lifetime of the vehicle and eliminate six billion metric tons of carbon pollution – more than the United States emits in an entire year.

As laid out in the final rule, the Administration will begin a mid-term review over the next few years to determine whether or not these standards should be changed based on the latest technical, economic, and other relevant data.

We also set the first-in-the-world fuel consumption standards for heavy duty trucks, which will deliver a quick payback for vehicle owners and savings that top $50 billion in fuel costs, 530 million barrels of oil, and 270 million metric tons of carbon pollution over the lifetime of vehicles built for model years 2014-2018.

We now have standards for medium and heavy-duty vehicles that are harmonized between our authority and that of EPA. We have standards that are flexible, that recognize the diversity in

the heavy vehicle fleet, and that represent a foundation from which we can achieve even more fuel and emissions savings as we move forward to a second round of rulemaking.

This is a foundation built on the hard work of staff at NHTSA and EPA and on the information we received from stakeholders.

To further advance the cause of efficiency, the President has asked us to set new, post-2018 standards for medium and heavy-duty trucks. He has asked us to achieve greater reductions in fuel consumption and to continue efforts to improve the efficiency of moving goods across our nation.

And he has asked that we partner with industry leaders and other key stakeholders on these new standards during his second term.

The process of putting together these new standards will raise new questions that must be addressed:

- We will achieve significant savings in the first round but how much more is possible as we move forward?
- The first round standards will drive more efficient engines and tractors but what additional improvements are available from other components of the vehicle, such as the trailer?
- What are the different fuel-saving opportunities that could be achieved if we look at the entire vehicle?

These and many other questions are being explored as we move toward the post-2018 standards. We are working closely with our partners at EPA to answer them. We will also continue our partnership with key stakeholders who must be part of that conversation and the discovery of solutions.

Your input is equally essential as we continue to advance the cause of safety throughout the fleet—and to provide greater protection to our most vulnerable vehicle passengers and to pedestrians.

Today, I am pleased to announce that NHTSA is taking a significant step forward in the protection of child occupants by proposing upgrades to the federal motor vehicle safety standard for child restraint systems.

The proposed upgrades would include the first ever side impact test for car seats sold in the U.S. that are designed for children weighing up to 40 pounds. The tests would use both an existing 12-month-old child dummy, and a newly-developed side impact dummy representing a 3-year-old.

In the new test, car seats must demonstrate that they can safely restrain a child by preventing harmful head contact with an intruding vehicle door, and by reducing the crash forces transmitted to the child's head and chest from a side impact. NHTSA estimates that the proposal would save the lives of five children and prevent 64 injuries each year.

Car seats are an essential tool for keeping young children safe in vehicles and have a proven track record of saving lives. If we adopt our proposal, parents and other caregivers will have

greater comfort in knowing that future car seats for children up to 40 pounds will have passed our test.

We will always act affirmatively when science and study tell us that sensible crash mitigation improvements can save lives. But as we look to the future, we know that there is even greater lifesaving potential in crash avoidance technology.

I was tremendously excited by the crash avoidance advances I saw at the North American International Auto Show in Detroit last week, and which I expect to see at the show here in Washington.

For example, with forward collision avoidance and mitigation (FCAM) technology, radar, cameras, and lasers are being used to detect vehicles in front of a car. If a crash is imminent, these systems can automatically hit the brakes.

Just as impressive is the fact that this safety technology is now in the market not only on luxury cars, but also as an option on some entry level vehicles.

This technology can also do a great deal to protect pedestrians and cyclists. If you were at the Transportation Research Board meeting last week, you know that Secretary Foxx pledged that protecting pedestrian and cyclists will be a top priority of his tenure.

We plan to announce a decision about the Agency's next steps for FCAM technology in the coming weeks.

Another step in this safety evolution is vehicle-to-vehicle technology.

V2V has the potential to make smart drivers even smarter.

When vehicles are capable of communicating their movements to each other, you'll know whether the car ahead of you—or even the one ahead of that—has stopped short. You will know if a car approaching at an intersection is on a collision course with yours. V2V has the potential to help drivers avoid or mitigate 70 to 80 percent of vehicle crashes involving unimpaired drivers.

Our research in this area has been extensive. As one example, in 2012, the U.S. Department of Transportation launched a real-world field test based in Ann Arbor, Michigan, that included nearly 3,000 cars, trucks, and buses equipped with V2V communications technology. The test vehicles were equipped with devices that send and receive anonymous safety data messages from equipped vehicles. Many of these vehicles were also able to translate the data into a warning to the driver about an impending crash.

NHTSA is using all of the information available to us, including the valuable data from the model deployment, as it decides if and when these technologies should be incorporated into the fleet. We plan to announce a decision about the Agency's next steps for V2V technology for light duty vehicles in the coming weeks—and a decision for heavy duty vehicles in about a year's time.

The lifesaving potential of V2V technologies is enormous. If and when ready to be adopted across the fleet, and tied to vehicle-to-infrastructure technologies, the results could be nothing short of revolutionary for transportation safety and for vehicle efficiency and mobility. It would

represent an advance matched only by the development of interstate highway system itself. Its potential is one of the many reasons I am so excited about the future.

There are many brilliant and innovative minds here at SAE today. You will all be essential to achieving our goals for safety and efficiency.

You will help determine how quickly we can advance the cause of fuel efficiency, which will tremendously impact the economic security of America's families and the quality of our environment.

You will help decide how rapidly we can improve the safety of vehicles by continuing to make them safer in a crash and promoting crash avoidance technologies that can be the difference between a safe trip home and a terrible tragedy.

Your work is essential. Your work makes a difference. And your work is appreciated by NHTSA and by the people we serve.

Thank you for asking me to be with you. I look forward to working with you for a safer and more efficient future.

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