

**Prepared Remarks**  
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Introduction

Thank you, Don (Newcomb, President, C3 Group) for your kind introduction and for the opportunity to be with you today to discuss the challenges and opportunities in automotive innovation and safety.

As anyone at NHTSA can tell you by heart, 32,719 people lost their lives in motor vehicle crashes in 2013. Every one of those deaths was preventable—from wearing a seat belt, to not driving aggressively, drunk, drugged, or distracted—those 32,719 lives were needlessly lost. That's unacceptable. It's going to change.

Our goal a NHTSA is to ensure—whether they choose to drive, ride, or walk—that every American arrive safely at their destination. All of them. Every time. There are no acceptable losses.

To pursue our safety mission, the team at NHTSA will strengthen what works, fix what doesn't, and ensure that NHTSA is using every tool at its disposal to save lives, prevent injuries, and reduce crashes. And, not to tip my hand too much, there will be a significant emphasis on technology innovations. The progress we seek in roadway safety is only achievable by bringing the promise of safety innovations into the automotive fleet.

Let me briefly describe three specific priorities for the next two years.

Defect Recall System

First, we must strengthen how NHTSA identifies and recalls vehicles and equipment with safety-related defects. As it stands, resources – including people, technology, and authority – present challenges to NHTSA's efforts in this area. We must bolster these resources. Before I arrived, NHTSA already had launched several initiatives to improve our technology and our processes so we catch more defects sooner. That work vigorously continues.

Core Safety Programs

Another priority is to strengthen NHSTA's core safety programs. The Agency has some well-established and highly successful campaigns that are household names, such as 'Click It or Ticket,' 'Drive Sober or Get Pulled Over,' and more recently, 'U Text. U Drive. U Pay.' These campaigns are changing attitudes, changing how Americans drive, ride and walk for the better, and they're saving lives. The Agency's grants to states and local governments are a foundation for our safety work across the nation.

This works garners less attention than our efforts on vehicle defects but is critical to addressing where significant safety risks exist. NHTSA has just published data that shows the critical reason, the last element in the chain of events leading to a crash, is the human 94 percent of the time.

So we will double-down on our success in these areas. And we'll constantly explore avenues to keep driving down deaths and injuries on our roads. Which brings me to our third priority, and the one that I'm sure is of greatest interest to this audience, technology innovations.

### Technology Innovations

Technology innovations have been critical to saving lives and preventing injuries on our roadways. From the most basic, like a seat belt, to the newest advances, like collision warning and automatic braking systems, these innovations have played a critical role in furthering safety.

In fact, a recent study of data from our Fatal Accident Reporting System estimates that safety technologies have saved 613,501 lives since 1960. And these benefits have come primarily from innovation that occurred in the past for which we are now continuing to realize the benefits. Newer technologies such as collision warning systems and automatic braking systems are just starting to penetrate the fleet and beginning to demonstrate their life-saving benefits on our highways. And then we have cutting edge technologies that are still in testing and refinement but have the potential to save thousands of additional lives each year well into the future.

Those enormous benefits are why we will spend the next two years at NHTSA strengthening our commitment to advancing innovations that deliver safety to the American consumer.

For example, earlier this year, we announced our intention to add two types of automatic emergency braking systems—crash imminent braking and dynamic brake support—to the list of recommended advanced safety features in our New Car Assessment Program, known to most Americans as NHTSA's Five Star Safety Ratings. The ratings are a vital tool that drives greater innovation into the automotive fleet and offers consumers an easily identifiable and memorable way to shop for safer vehicles. More Stars. Safer Cars.

### V2V

We also continue our years of effort to deliver one of the next great automotive safety innovations: vehicle-to-vehicle communications.

If you have an eye on automotive safety innovations, this one is the real game changer.

V2V technology can provide drivers with warnings to avoid other vehicles in common crash types, such as rear-end, lane change, and intersection crashes.

And here's what makes this such a tremendous advance beyond current crash avoidance systems: an exchange of speed and position data between vehicles will help deliver warnings to drivers even if your vehicle's radar, cameras, or other sensors can't see the threat. That data is anonymous and exchanged 10 times per second. So your vehicle will always be looking out for

you—and looking much farther down the road than possible for even the best driver, and even see around corners in a way that no other technology can.

That's what makes this technology such an exciting leap ahead of current crash avoidance technology. The result will be fewer crashes, fewer injuries, and few deaths.

To get a sense of the potential, just take a look at NHTSA's study of just two safety applications: Left Turn Assist and Intersection Movement Assist.

The former warns not to turn in front of oncoming traffic when making a left hand turn. The latter warns if it's not safe to enter an intersection due to a high probability of a collision.

According to our study, these two applications alone could prevent up to 592,000 crashes and save 1,083 lives per year.

Put another way, V2V could help drivers avoid more than half of all of these types of crashes. More than half. Nearly 600,000 crashes that never happen. More than 1,000 lives saved every year. And that's just the beginning of what this technology can do.

This is a revolutionary moment in automotive history, and NHTSA is leading the charge. Last year we released an advance notice of proposed rulemaking and solicited public comment on the Department's decision to require V2V devices in new light vehicles. After reviewing the comments, the Department remains committed to issuing a proposed regulation next year. With each step, we will move from an age of crash mitigation to one of crash avoidance. It's like a doctor spending decades treating a deadly disease only to have research deliver what could be a cure.

To be clear, we're talking about this technology's potential. And that potential is thrilling. But some policymakers are suggesting steps that could stifle V2V before its safety benefits can be realized.

For V2V to work correctly, the messages communicated between vehicles must be free of interference. That is why wise policymakers reserved spectrum specifically for V2V. Over a decade of effort has gone into designing and proving out systems that rely on this spectrum to save lives. We're now on the cusp of delivering on its promise. Yet some policymakers have suggested that unlicensed users should be provided unfettered access to the V2V-dedicated spectrum that is necessary to make this safety technology work. This could lead to a situation where interference blocks messages between vehicles, which would prevent a driver from receiving a critical warning that could help avoid a deadly crash.

NHTSA firmly believes V2V potential to prevent deaths and injuries on America's road should be preserved rather than risked. That's why V2V investment needs to move forward now. We're too close to risk V2V's potential now.

## Automation

A bit farther down the road we look toward the potential of fully automated or self-driving vehicles. For techies and consumer alike, it's the automotive development that generates a lot of excitement. It's the fulfillment of decades of sci-fi fantasies. But it also requires a rigorous and careful approach to ensure safety.

Automated vehicles could provide unparalleled mobility and access and can directly address a factor involved in at least 94 percent of crashes on our roads—human error. But before full self-driving vehicles can be offered for sale to the general public, however, we have to realize that these vehicles don't eliminate the potential for error—they shift error from a driver to the vehicle. This is why we are very actively engaged in research on how to best ensure the safety and reliability of electronic components that control safety critical functions such as steering, braking and acceleration. And of course higher levels of automation also create new issues such as cybersecurity and the need to understand how to best protect the security of safety critical components.

## Close

If our focus over the next two years was limited to one top priority—to just addressing our recalls efforts, strengthening core safety programs, or to advancing the cause of automotive innovation—we would have a very full plate. But when lives are at risk every minute of every day, we don't have the time to do one thing at a time. I have just two years. And these three very big priorities. So not only is this a sprint, we'll be running and juggling at the same time.

I also know, as a third generation San Franciscan, and as someone who lived in Silicon Valley for twenty years before coming to government service, that innovation waits for no one. Organizations and products that didn't innovate are now just distant memories.

That's why we will constantly be engaged in the effort of improving every aspect of our work at NHTSA. We're in a business where the status quo—which was 32,719 traffic deaths in 2013—is not acceptable. We not only need to make continued progress in driving that number down—and we have reduced fatalities by 25 percent since 2004—but truly bring dramatic reductions to injuries and deaths and, one day, bring it down to the only acceptable number: zero. And innovation—innovation driven by many of the people here today—is what will make that possible.

That's because, as recently released data from NHTSA reveals, the critical reason, the last element in the chain of events leading to a crash, is the human 94 percent of the time. Technology offers incredible potential to address that risk.

In the past, advances in technology relied on the willingness of drivers and passengers to use them—such as the simple and lifesaving act of putting on a seat belt. Increasingly in today's vehicles and in those purchased in the future, technologies will help protect us from ourselves and from the poor driving habits of others. We are embarking on a new and exciting journey into a safer vehicle future—and it is being fueled by many of the innovators here today. I've seen the promise of your many advances in my brief time now at NHTSA. And I cannot wait to see what lifesaving technologies come next.

I appreciate the opportunity to speak with you today. Thank you.

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