Automated Road Transportation Symposium (ARTS23) Keynote Address

Ann Carlson, NHTSA Acting Administrator

Wednesday, July 12, 2023 |

San Francisco, California

AS PREPARED FOR DELIVERY

Valerie (Shuman), thank you so much, and thank you to TRB for the invitation to be here with you today. I also want to recognize the ARTS Planning Committee and the approximately 200 volunteers who make ARTS possible – this event is an important one on everyone's calendars every year, including mine. This conference wouldn't be possible without you.

And a special thank you to Jane Lappin, who received the 2023 U.S. Government Appreciation Award at this year's Enhanced Safety of Vehicles, or ESV, Conference in Japan for her leadership in vehicle safety. Jane, it's very good to see you again.

NHTSA and the Transportation Research Board have a long, fruitful partnership that advances safety. Safety is our top priority, and I know it's yours as well.

NHTSA's work touches every person in the United States every day. We're committed to making the nation's roads safer for everyone and making transportation more environmentally friendly and equitable. Under the National Roadway Safety Strategy framework, NHTSA's approach to advanced vehicle technologies also prioritizes safety.

I joined NHTSA two and a half years ago at the start of the Biden-Harris Administration. The transition to a new administration allowed us to take a hard look at the agency's work on emerging technologies. We challenged ourselves to be creative within our existing authorities and resources, and to find new ways to leverage them to advance safety and innovation.

We see the future of automation as one that should be driven by the goal of safety. This applies not only to vehicles with automated driving systems, but ones with advanced driver assistance systems too. Technology can both promote safety and enhance driver comfort when used correctly. Safety is at the heart of our approach to automated technologies.

First let me talk about automation and human drivers. At the end of May, NHTSA published a Notice of Proposed Rulemaking that would require automatic emergency braking and pedestrian AEB systems on passenger cars and light trucks. When finalized, we expect the standards to dramatically reduce crashes associated with pedestrians and rear-end crashes. Many crashes would be avoided altogether, while others would be less severe, ultimately saving lives.

And in June, NHTSA and the Federal Motor Carrier Safety Administration announced a Notice of Proposed Rulemaking that would require all heavy trucks to have AEB too.

These proposed rules fulfill key components of the U.S. Department of Transportation's National Roadway Safety Strategy, launched in January 2022 to address the national crisis in traffic fatalities and serious injuries. The NRSS adopts the safe system approach and builds multiple layers of protection with safer roads, safer people, safer vehicles, safer speeds and better post-crash care.

NHTSA is committed to advancing technologies that are proven to save lives. AEB is an example of this approach, as NHTSA researched the technology and added it to the New Car Assessment Program before moving to mandate it. In fact, NHTSA has proposed adding four new technologies to NCAP: lane-keeping support, pedestrian AEB, blind spot detection, and blind spot intervention. Our research – and robust data – lay the foundation of our safety standards.

NHTSA is leveraging every tool we have to advance the safety of new and developing technologies. The agency has robust authorities to protect the public, investigate potential safety issues, and compel recalls when it finds evidence of noncompliance or an unreasonable risk to safety.

To do this more effectively, we need critical safety data as soon as they're available. Data are NHTSA's lifeblood because we base our decisions on facts, research, and thorough analysis.

Many of you may be familiar with our Standing General Order requiring crash and incident reporting for vehicles equipped with ADS as well as Level 2 advanced driver assistance systems. It also applies to prototype systems being tested on public roads.

This Standing General Order provides NHTSA with additional data on crashes involving vehicles where ADS or Level 2 ADAS systems were engaged or used just before the crash. Reports are required for all ADS crashes and for serious ADAS crashes.

You can download the data online because transparency is important to us. We want everyone to benefit from the data – industry, safety advocates, state and local governments, and researchers. These data also help our investigators quickly identify potential defect trends that could emerge in these systems, warranting further exploration. We've followed up SGO reports with additional investigations, leading to several recalls.

Let me spend a minute now talking about NHTSA's legal authorities and automated driving. Of course, our enforcement authority is one of those tools but not the only one.

As many of you are aware, we have authority to issue exemptions from FMVSS for automated vehicles. We granted one for Nuro and will issue our decision on a second petition in the coming weeks.

The central issue is deciding whether vehicles that are driven not by humans but by computers need to comply with safety standards that are fundamentally about human drivers: requirements for mirrors, sun visors, windshield wipers and so forth.

Our authority under Section 30113 of the Vehicle Safety Act – which we call Section 555 for the regulatory section that governs the program – allows us to exempt up to 2,500 vehicles per year.

But our authority isn't limited to 30113. We also have authority under Section 30114 to exempt vehicles used for various purposes, including research and demonstration. We're now looking to use Section 30114 to establish a new program, which we're calling AV STEP, which I'm really excited to describe for you.

Data truly is fundamental to our work, and we are continuously looking for new ways to gather ADS data to inform future oversight and rulemaking. One way we do this is through our import program established under Section 30114.

NHTSA already imposes terms and conditions on certain non-compliant ADS-equipped vehicles imported into the country. Those terms and conditions require pre-approval of fleet size, routes, operations, reporting requirements of incidents and crashes, and give NHTSA authority to ground vehicles and fleets, which we have done.

In conversations with those in the ADS development space, we've heard strong interest in an enhanced pathway to the deployment of ADS non-compliant vehicles in addition to the Section 555 petition process, as well as interest in participating in a national program.

I'm excited to share an update on just such a program – the ADS-equipped Vehicle Safety, Transparency and Evaluation Program, or AV STEP, announced in the Department's spring regulatory agenda. We are working on a Notice of Proposed Rulemaking for this new program, and we hope to publish it this fall. When we do, I hope you will all submit your comments – we read every comment we receive and consider them thoughtfully in the rulemaking process.

Under AV STEP, NHTSA would consider applications for deploying noncompliant ADS vehicles, subject to review processes, terms, and conditions that the agency would require to ensure public safety and transparency. The program would also accept applications for the participation of compliant ADS vehicles whose operators would find benefit from being included in AV STEP.

By allowing the deployment of exempt ADS vehicles under conditions that include requirements to demonstrate safety and provide information about vehicle operation and deployment, we believe AV STEP would open up a wealth of data. Vehicle companies, researchers and policymakers would benefit from accelerated learning as a result of AV deployment and new safety and data requirements. The program would enhance our research into AV safety and AV performance. We also believe the program would provide additional transparency about AV safety and deployment while giving the public assurance that NHTSA is overseeing the deployment of AVs on our public streets.

We think this program will interest many of you and that you'll see the benefits of this approach for safety, transparency, and innovation. Again, stay tuned for the issuance of an NPRM this fall and please take advantage of the opportunity to comment on our proposed program. This is a new and exciting opportunity for all of us.

Finally, I'd be remiss in not mentioning our rulemaking authority with respect to ADS. Of course, we issued the first ADS-related rule in 2021 that I'll describe in a moment. Ultimately, we will likely use our rulemaking authority to develop a regulatory structure for automated vehicles. We believe that AV STEP would hasten NHTSA's progress toward establishing an effective governance structure for ADS performance. That's one of the reasons we're so excited about it.

While that rulemaking is being drafted as we speak, NHTSA has already taken several other actions to advance ADS safety.

Earlier this year, we established the Office of Automation Safety under NHTSA's existing Office of Rulemaking. The office will focus on ADS and certain other advanced vehicle technologies. They will be responsible for developing the next generation of safety standards, evaluating and processing petitions, managing exemptions, and overseeing safety demonstrations.

The Vehicle Safety Act applies to ADS vehicles, and NHTSA stands ready to use our enforcement authority to hold manufacturers accountable for any products that may introduce an unreasonable risk to safety. We've opened multiple investigations into several manufacturers regarding potential safety defects in ADAS and ADS systems, and several ADS systems have been recalled in the past year.

Safety is also at the heart of our first major ADS rulemaking, which we published last year to ensure the safety of occupants in ADS vehicles. This rule updates the occupant protection Federal Motor Vehicle Safety Standards to account for vehicles without traditional manual controls.

As the driver changes from a person to a machine in ADS-equipped vehicles, the need to keep people safe remains the same and must be integrated from the beginning. With this rule, we ensure that manufacturers put safety first.

And finally, NHTSA has relaunched our Automated Vehicle Transparency & Engagement for Safe Testing Initiative, or AV TEST program. We appreciate the stakeholder community's voluntary and active engagement with NHTSA on this important project. The AV TEST online tracking tool is a first-of-its-kind, transparent way for the public to learn about the on-road testing and development of ADS vehicles in their communities.

We are committed to information sharing and transparency, which are the hallmarks of both AV TEST and the Standing General Order I mentioned a few minutes ago. By making data available to the public, we're empowering communities – and anyone else interested – to learn more about how these technologies perform in the real world.

I hope you can see how busy NHTSA's been. We're using so many of our authorities – enforcement, exemptions, demonstration programs, rulemaking, research, and data gathering – to move toward a comprehensive AV governance structure. We've even created a new office specially devoted to many of these efforts. AVs and automated technologies have enormous promise and NHTSA is committed to technological innovation with safety at its core.

Our Secretary of Transportation Pete Buttigieg is also a champion of innovation, which as he often says can help America win the 21stst century. His commitment – the entire department's commitment – is, of course first to safety.

Figuring out how to innovate in ways that reduce deaths and serious injuries on our nation's transportation network, while committing to the highest standards of safety across technologies, is at the heart of what we're doing.

This is an incredibly exciting time in transportation because ADS technologies offer an opportunity to rethink much of our society. They could expand transportation options for people with disabilities, or those who live in communities currently underserved by public transit. With thoughtful planning, ADS technologies can also potentially improve air pollution, leading to better public health outcomes and traffic congestion too.

However, none of these exciting possibilities can be realized if there isn't a culture of safety. Innovation and safety aren't opposing forces. They can go hand in hand – a robust safety culture can help the public adopt ADS-equipped vehicles and trust that they're safe.

NHTSA's experts are also available to you – to answer your questions, to hear about your experiences, and to further our collective understanding of ADS technologies. NHTSA is committed to advancing research, data collection and rulemakings that advance safety and support innovation in this rapidly developing field.

Thank you very much for your time today, and please stay safe.