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Prepared Remarks *for*
Raymond Martinez, FMCSA Administrator
Transportation Research Board
Automated Vehicles Symposium
Orlando, FL
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Thank you for your kind introduction. First, I want to thank the Association for Unmanned Vehicle Systems International and Transportation Research Board for hosting this event.

Since 2014, you've convened this Symposium to bring together leaders in industry, government, and academia to discuss ways that automated vehicles can make the ways we connect people, places, and goods even better.

FMCSA shares a vision of a transportation future that can seamlessly provide intelligent mobility around the movement of people and freight in a safe and smart way.

In short, we want to encourage your exploration and creation of what's possible when it comes to automated vehicles and assistive technologies.

I also want to invite you to attend our Multi-Modal Automated Vehicle Listening session this afternoon from 2:00pm to 4:00pm in the Royal Ballroom. We will have participation from FMCSA, as well as our sister agencies – Federal Transit Administration, Federal Highway Administration, the Maritime Administration, and the National Highway Traffic Safety Administration.

I encourage you to attend this engaging and insightful panel discussion

I'm pleased that the Symposium is featuring outdoor demos, and I hope you've had the chance to look at the technologies on display. It's exciting to see the many ways automotive imagination has been unleashed.

And as everyone in this room knows, forms of assistive technologies exist right here and right now—and are evolving every day.

These technologies have been and are being discussed among and between leaders in industry, academia, and law enforcement.

Beyond the discussions, leaders are acting as well. Although we realize that large-scale implementation of ADS-equipped CMVs is still in the future, we continue to see innovations in this area.

Companies are testing various automated driving technologies in about half of the States around the country, including possibilities for CMVs and commercial fleets.

Over the last couple of years, we have seen different business cases for such technologies.

They're being tested by autonomous vehicle companies hauling commercial freight as motor carriers, and by commercial fleets conducting field trials of new technology solutions with support from technology providers as well. Just last month, an unmanned, remote-operated truck, was tested on a public highway just south of here. Also, the United States Postal Service—one of the world's largest civilian fleets—also is engaging in automated vehicle pilot programs.

These are exciting developments, and we believe FMCSA plays an important role in the future of assistive technologies, as government grant-maker and safety regulator.

These technologies have the potential to save lives and grow the economy, by increasing safety.

I see two overarching roles for the Agency: our role to ensure safety and promote innovation and **two**, to act as a convener in continued dialogue on assistive technologies/ADS development, testing, and deployment.

Ensuring safety and promoting innovation

First and foremost, we explore assistive technologies to be true to our mission of reducing crashes, injuries, and fatalities involving large trucks and buses.

According to the National Highway Traffic Safety Administration (NHTSA), about 94 percent of all accidents involve human error.

Automated driving systems hold the promise of improving safety outcomes by addressing issues stemming from distracted and impaired driving. In other words, these technologies can be part of the solution to prevent accidents and save lives.

This is a potentially game-changing development for FMCSA.

As the lead Federal agency responsible for regulating CMVs and the nearly 4.7 million active holders of commercial drivers' licenses (CDLs), this is particularly relevant to us.

Professional drivers are **ten times** more likely to be killed on the job, and nearly nine times more likely to be injured on the job compared to the average worker.

Automated driving technologies can potentially reduce accidents involving human error and will provide commercial vehicle operators with safety assistance in their day-to-day jobs.

That's exactly the type of progress we'd like to continue—encouraging the adoption of technologies that will help drivers do their jobs more effectively and motor carriers to run safely and more effectively.

An important example of this is 5.9 GHz or "Safety Band." The 5.9 GHz band is of critical importance to the Department for reducing crashes, injuries, and fatalities, while mitigating congestion.

It is uniquely positioned today to support safety applications that could prevent or significantly reduce the severity of vehicle crashes in a manner not available through other existing vehicle technologies.

The Safety Band is already used by state transportation departments for vehicle-to-vehicle (V2V) and pedestrian collision avoidance, transit priority, traffic light control, traffic monitoring, travelers' alerts, automatic toll collection, traffic congestion detection, emergency vehicle signal preemption of traffic lights, truck platooning, and electronic inspection of moving trucks through data transmissions with roadside inspection facilities.

An estimated 40,000 vehicles and nearly 7,000 roadside transponders are already equipped with Safety Band-enabled vehicle-to-everything (V2X) technology in 25 states.

As you know, the Department and FMCSA does not promote any technology over another—rather we encourage the automotive industry, wireless technology companies, and other innovators to continue

developing multiple technologies that leverage the 5.9 GHz band of spectrum for transportation safety benefits.

We must ensure that use of the Safety Band is protected for traffic safety so that automated light duty vehicles, trucks, motor coaches, rail, transit, and infrastructure and traffic devices across all surface modes can work in the safest possible way.

Doing so may help reduce the annual number of 37,000 road deaths and 2.7 million injuries. The capacity for a safer, more mobile and accessible future is already here, and it's growing on the Safety Band.

Promoting Innovation

Encouraging innovation is one of Transportation Secretary Elaine Chao's top priorities, and for good reason: Technology is the next frontier that can usher in greater safety for both commercial motor vehicle drivers and other motorists.

The overall policy from the U.S. Department of Transportation prioritizes safety, supports innovation, and remains technology neutral as presented in **Preparing for the Future of Transportation: Automated Vehicles 3.0** or **AV 3.0**.

AV 3.0 defines multimodal safety guidance, clarifies policy and roles, and outlines how to work with the Department as automation technology evolves.

Because of the continued rapid evolution of the technology, FMCSA and the Department prefer to rely on the development of consensus standards, which offer a flexible and non-regulatory means of bringing this potentially life-saving technology to the market more quickly.

You all play a critical role in developing these standards and helping us understand best practices.

The Department under Secretary's Chao leadership has set the tone with this policy guidance. It serves as the foundation of FMCSA's activities in assistive technologies.

FMCSA Activities

As you may know, FMCSA maintains jurisdiction over operating, inspecting, repairing, and maintaining CMVs that are equipped with these systems.

In May 2018, the Agency released a Request for Comments on FMCSA safety regulations that may inadvertently pose barriers to the safe testing and deployment of ADS technologies on public roads.

We especially encouraged leaders in the industry to comment, because of the dramatic pace of technology and the clear market interest. We are using this input to understand how the technology is evolving and to inform plans and decisions.

Under existing regulations regarding operating ADS-equipped CMVs, we will no longer assume that a CMV driver is always a human, or that a human is necessarily present onboard a commercial vehicle during operation.

Moving forward, the Agency is now seeking input on testing vehicles with ADS Technologies.

Recently, FMCSA and NHTSA each issued Advance Notices of Proposed Rulemaking (ANPRM) seeking input on some of the remaining issues affecting ADS adoption and safe implementation.

Both agencies seek comments to make sure that all potential approaches are fully considered as they move forward with possible regulatory actions.

The ANPRM released by FMCSA seeks public comment on questions regarding several key regulatory areas to better understand how changes to its rules can account for significant differences between human operators and ADS.

These questions focus on topics such as requirements of human drivers, CDL endorsements, HOS rules and more.

We want to hear from you, and encourage your input before the comment period end on **July 29, 2019.** You can review and respond on regulations.gov.

Other FMCSA Activities

At the same time, we are coordinating Agency research resources with our modal colleagues to identify key safety technologies to better understand the impact of autonomous vehicles on the nation's freight system.

This research focuses on several themes including human factors, cybersecurity, and inspection and maintenance factors.

Additionally, we are participating in cross-modal working groups within DOT as well as manufacturer trials, engineering forums, State legislative processes, and industry associations related to vehicle automation.

Currently, we are working with our colleagues from the Federal Highway Administration on truck platooning exercises at the U.S. Army testing facility at Aberdeen, MD.

FMCSA is working with the Maritime Administration (MARAD) to explore how SAE Level 4 truck automation might improve safety and operations at intermodal port facilities.

Together, we are evaluating how automation also might relieve the burden on drivers at port facilities.

Driver Assistance

FMCSA also is pleased about the NTSB's "Most Wanted List" item for the passenger car and CMV industry to "Increase Implementation of Collision Avoidance Systems in All New Highway Vehicles.

FMCSA and the Department's Intelligent Transportation Systems Joint Program Office are planning a four-year project to work with motor carrier industry associations to promote the benefits of Collision Avoidance Systems through education, outreach, and training.

We look forward to working with the CMV industry on the voluntary acceleration of collision avoidance and other advanced driver-assistance systems on heavy trucks.

FMCSA's emerging role.

I am encouraged by the many ways FMCSA is working on assistive technologies, both in the regulatory and research realms to ensure safety and promote innovation. But we still have the capacity to achieve even more as a **convener**.

The textbook definition of a convener is one who brings people together. And FMCSA is uniquely suited to do just that.

Since joining the Agency, I have stressed the need and importance of collaboration.

As Administrator, one of my primary goals has been to find ways to collaborate strategically and effectively to improve motor carrier, driver and vehicle safety.

To collaborate effectively, we must **listen and engage**. Continually. And it is through this process that we build trust.

That is what we have done as an Agency, and that is what we must continue to do.

FMCSA and other surface transportation modes have conducted numerous listening sessions and sought input on ADS development, testing, and deployment from across the transportation ecosystem over the past few years.

We received input on ADS, particularly for CMVs, from a wide variety of people during these knowledge-sharing events: industry leaders, drivers, scientists, and more.

This feedback has been critical to helping us explore the impact of ADS from many diverse perspectives and we want to continue engaging with you.

FMCSA will continue engaging the CMV community through outreach activities and meetings with industry, safety advocates, driver organizations, and the motoring public.

Through these activities, we want to foster an ongoing dialogue that better enables government to learn from industry and industry to learn from government, all in an effort to make our roadways safer.

Keeping up with this theme, we will, at the end of today's programming, host a panel with representatives from across surface transportation modes followed by a listening session.

I encourage you to come, ask questions, and share your perspectives with us.

This is just the beginning of how government can go beyond our historical listening role and can serve as a convener of stakeholders and foster an open dialogue.

This engagement is critical to our Agency's safety mission to reduce crashes among large trucks and buses, as well as tackle some of the CMV industry's largest challenges.

A shared vision that moves America forward.

FMCSA is committed to using all the tools at our disposal to keep our nation's roadways safe for all drivers.

Pursuing policies and initiatives that would support technology and spur innovation can advance both safety and transportation efficiency.

Working with our partners and stakeholders in a spirit of open communication, we embrace the possibilities to use even more technological innovations to reduce crashes, encourage greater efficiency, and save lives.

But I emphasize that we are working in collaboration with our partners and stakeholders. We do not engage in this work alone. We all have roles to play.

So, let's continue our work to make our roadways safer. Let's embrace technology and innovation to help us achieve our shared safety goals. And let's unleash our talents to move America forward.

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