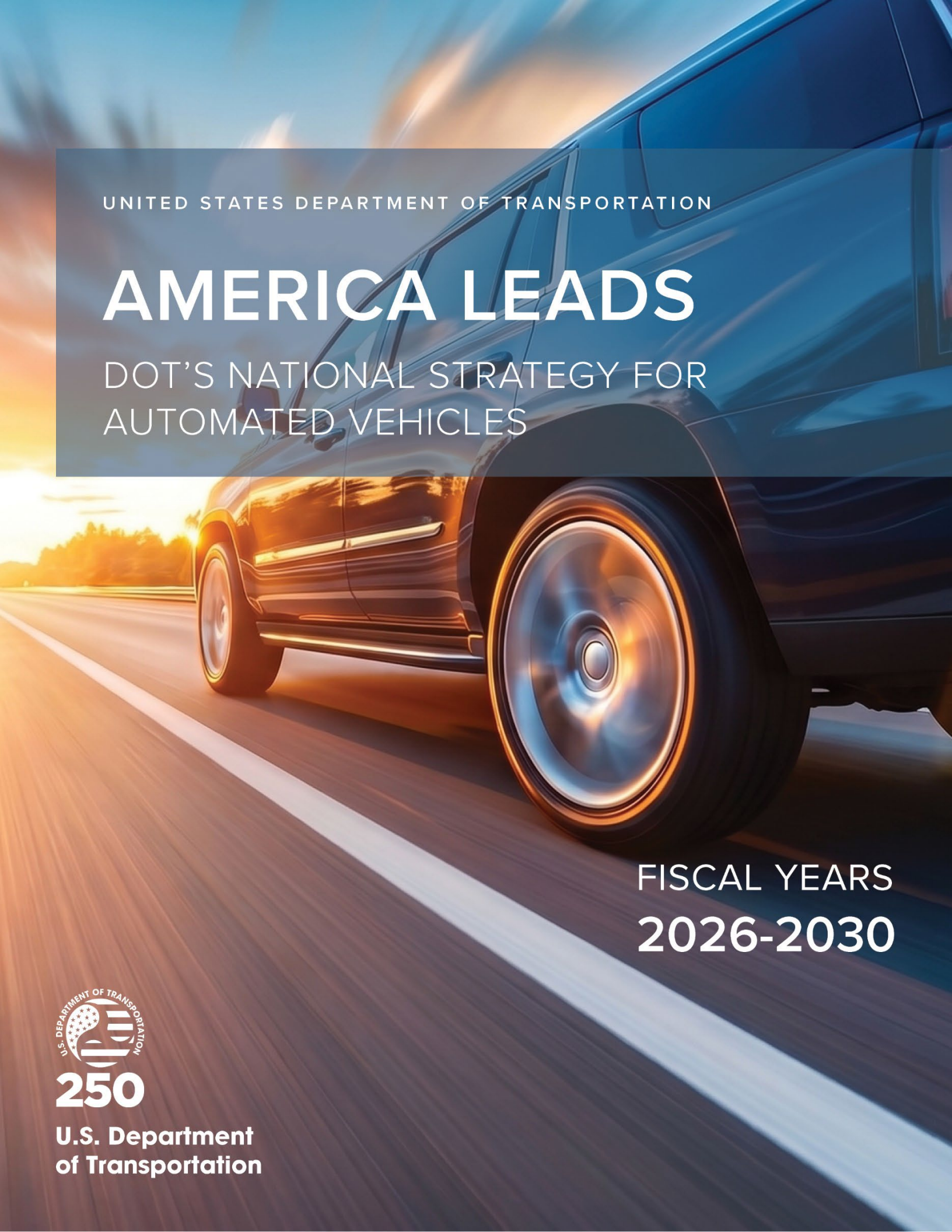

UNITED STATES DEPARTMENT OF TRANSPORTATION

AMERICA LEADS

DOT'S NATIONAL STRATEGY FOR AUTOMATED VEHICLES

FISCAL YEARS
2026-2030

U.S. Department of Transportation
250
U.S. Department of Transportation

America Leads: DOT's National Strategy for Automated Vehicles, Fiscal Years 2026–2030

Letter from the Secretary

The American auto industry has led the world in innovation for more than a century. The assembly line revolutionized how cars are manufactured, making them more affordable to American families. The electric starter made them easier to use. Power steering and cruise control made them easier to drive. Airbags and anti-lock brakes made them safer. Each of these innovations appeared first on American cars, and once again, America is poised to lead the next evolution of the automobile.

I am proud to present the U.S. Department of Transportation (DOT) Automated Vehicles (AV) National Strategy. The AV National Strategy communicates to the American public, and the world, how DOT is advancing American leadership in the AV industry. The AV industry started right here in the United States, and this is where it will continue to thrive.

It all begins with safety. By putting safety first through robust oversight, we create the conditions for American innovators to succeed. Safety is critical for the AV industry as it grows and is also why we're so optimistic about its future. AVs don't drive drunk, they don't get tired, and they can't get distracted by an incoming text message or notification—all significant contributors to crashes today.

This AV National Strategy is about harnessing the great potential of AVs to transform roadway safety for American families and open new avenues for travel. It outlines specific actions that DOT will take over the next few years, while laying the groundwork for the longer-term future. And rest assured: that future will continue to include the option to drive yourself. But when a long day at work, a fun night out on the town, or an injury or disability means that driving isn't an option, AVs will offer a new way to get home. And those AVs will be developed, built, and operated by America's best and brightest.

I'm optimistic about this future and commit the Department to doing its part to make it a reality.

Sean Duffy
Secretary of Transportation

Introduction

This National Strategy communicates the unified approach and goals of the U.S. Department of Transportation (Department or DOT) for automated vehicles (AVs) and describes critical activities planned and underway, with a focus on fiscal years 2026–2030.[1] It expands upon the National Highway Traffic Safety Administration (NHTSA) April 2025 AV Framework ("NHTSA's AV Framework") and represents a key element of Secretary Duffy's safety and innovation priorities.

Motivation

Americans have been developing, testing, and deploying AVs for the past two decades, building from a rich heritage of automotive and technological innovation. In 2026, automated driving system (ADS)-equipped passenger vehicles carry paying passengers in several cities, while ADS-equipped trucks haul commercial cargo along some interstates.

From seat belts, to airbags, to today's advanced driver-assistance systems, vehicle technology has steadily evolved to play an important, active role in saving lives on America's roads. Features designed to protect people during a crash have developed into a new generation of tools that can avoid crashes altogether. **DOT is optimistic that AVs can provide a major evolution in vehicle safety** because they cannot be distracted, fatigued, or impaired by drugs or alcohol. They also have the potential to revolutionize freight transportation and mobility, particularly for people who cannot or choose not to drive.

At the same time, **technologies can introduce new and unique risks to motor vehicle safety**. It can also be challenging for developers, manufacturers, and government officials to apply processes and rules that were developed with the assumption of a human driver to AVs. **DOT is being deliberate and thoughtful in establishing new regulatory tools** to address the needs of these new AV technologies while empowering American innovation.

DOT anticipates that the transportation system will continue to include conventional manually driven vehicles, even as adoption of AVs increases. The Department is prepared for a transportation system that includes both human-driven and automated vehicles coexisting on public roads.

As the pace of innovation accelerates globally, **DOT is taking action to maintain American leadership** on AVs. Section 3, "DOT in Action," gives an overview of the Department's work in safety oversight and enforcement; modernization of motor vehicle safety regulations; and research, stakeholder engagement, and information sharing.

[1] The term "autonomous" is in common use but has the implication of vehicles taking independent action, which is not the case. DOT generally prefers "automated" as a general-use term, with "ADS-equipped" as a descriptor when referring to a specific type of vehicle. Note that the AV National Strategy's scope is motor vehicles operating on public roads.

Relationship of the AV National Strategy to Previous Publications

The Department has previously published a series of policy and guidance documents related to AVs.[2] Though those documents contain some information that remains valid, they should not be considered comprehensive or as providing current information on the status of the industry or technology. To the extent that concepts and statements of these documents conflict with the concepts and statements in this strategy document, the AV National Strategy supersedes those documents. Interested readers can consult current rulemaking documents in the *Federal Register* and recent guidance and research results from DOT's Operating Administrations for more current information.

America Leads ADS

The Department's goals for ADS reflect a continuation and refinement of DOT's ongoing work and communicate a commitment to taking common-sense steps to ensure that the United States leads the ADS industry. They expand upon NHTSA's AV Framework Principles to encompass a multi-modal, Departmental perspective.[3]

AV Goals

Prioritize Safety: Provide guardrails to support and improve safety as the AV industry grows.

Safety is DOT's top priority. DOT is optimistic that AVs will lead to significant improvements in safety, mitigating persistent behaviors like driver impairment and distraction that have proven challenging to address. **The transformative potential of AVs to improve safety and save lives is too substantial to overlook**. Yet, that potential can only be reached by **first prioritizing safety in testing, deployment, and operations**.

The Department will continue its critical role in safety oversight and enforcement while embracing and enabling innovation. NHTSA continues to monitor on-road use for potential safety defects, including through crash reporting, recalls, and other enforcement mechanisms, working with the responsible entities (*e.g.*, manufacturers, developers, and operators) to resolve issues as they arise. The Federal Motor Carrier Safety Administration (FMCSA) is also continuing its work to support the safe operation of all commercial motor vehicles (CMVs) by providing effective oversight of motor carrier operations, including regulatory compliance and vehicle maintenance through enhanced inspections. Further, the Department engages regularly on emerging safety issues with critical

[2] Previous policy and guidance documents: Federal Automated Vehicle Policy (2016), ADS 2.0: A Vision for Safety (2017), AV 3.0: Preparing for the Future of Transportation (2018), Ensuring American Leadership in Automated Vehicle Technologies: Automated Vehicles 4.0 (2020), and the Automated Vehicles Comprehensive Plan (2021).

[3] NHTSA announced its AV Framework Principles in April 2025 as "prioritizing the safety of ongoing AV operations on public roads, unleashing innovation by removing unnecessary regulatory barriers, and enabling commercial deployment of AVs to enhance safety and mobility for the American public."

stakeholders, including ADS developers, vehicle manufacturers, State and local governments, and public safety officials.

Provide Regulatory Certainty: Modernize existing regulations, remove unnecessary barriers, streamline processes, and provide clarity and predictability. Work towards consistency.

As the Department has long maintained, **DOT regulations, including those from NHTSA and FMCSA, allow for the development and deployment of AVs. Those AVs must still comply with all existing Federal standards unless granted an exemption**. Many of these standards remain relevant to the safety of AVs, such as seat belt requirements for passengers. However, **applying certain regulations to AVs creates unintended and unnecessary regulatory barriers that do not serve a safety purpose** because they were created with the assumption of a human driver in the vehicle.

For example, many of NHTSA's Federal Motor Vehicle Safety Standards (FMVSS) are designed to address the needs of human drivers and require equipment to ensure vehicles meet performance requirements based on human inputs. This can restrict the deployment of purpose-built vehicles designed never to be driven by a human operator.[4] For FMCSA, indirect barriers are mostly related to translating existing operational safety requirements for automated CMVs, while other barriers require modernization to ensure effective oversight and the safe operation of all CMVs. For the Department, the introduction of automation also creates questions related to other aspects of the surface transportation system, such as the transportation of hazardous materials.

The Department continues to assess how the regulatory environment will need to evolve to meet future needs as technologies mature and adoption increases. For example, NHTSA has initiated efforts to develop performance standards for ADS competency. Combined with its broad oversight authority, these standards will provide minimum requirements for the deployment of AVs on public roads and further assure public trust in the technology.

In addition to traditional oversight tools such as standards development and rulemaking, **DOT will use its convening authority to engage stakeholders** to solicit input and encourage consistent approaches and best practices for the safe deployment of these vehicles.

Promote American Innovation: Expand commercial availability and operation for passenger and freight applications domestically and promote U.S. interests abroad.

America has a long tradition of global leadership in automotive software and hardware innovation. The automotive and technology sectors are major contributors to the global economy today, and **the potential direct and indirect economic impacts of AVs will be significant**. Hundreds of billions of dollars globally have been invested in AV development to date, with much of that investment flowing into U.S.-based companies.

Maintaining America's technological dominance in automotive innovation and manufacturing is both an economic necessity and a strategic imperative. **DOT is working to support market access for**

[4] See, for example, Federal Motor Vehicle Safety Standards; Modernization of FMVSS No. 102 To Accommodate ADS-Equipped Vehicles, 91 Fed. Reg. 12532 (March 16, 2026) (RIN 2127-AM72).

our industry abroad, including through our leadership and participation in international standards development and trade activities so that American companies can compete on an even playing field as they expand further into global markets. By ensuring international frameworks recognize the U.S. self-certification models, the Department can facilitate a harmonized global marketplace that prioritizes both safety and innovation.

AV adoption is anticipated to be gradual, but new jobs are already being created. Over time, further changes to the workforce are likely. **DOT will work with industry and public sector stakeholders to support the transportation workforce** during the transitions that come with technological change.

Facilitate Interoperable Corridors: Convene national stakeholders to promote seamless cross-State interoperability within the transportation system.

DOT is supporting the digital modernization of our highways for widespread operational benefits, which should also make them more attractive to AV operators. DOT will achieve this, in part, by convening Federal resources, States, and industry to identify potential operational requirements that harmonize corridor level data structure, content, and exchange protocols across State jurisdictions. Digital infrastructure begins with secure, scalable data networks and interoperability. The transportation system has the potential to incorporate digital corridors capable of broad information exchange.

To realize this outcome, DOT is exploring a seamlessly integrated transportation network where real-time data connectivity transforms how people and goods move across the country and how services are provided. By bridging the gap between physical infrastructure and digital intelligence along our Interstate and other national highway system routes, we aim to create a safer, more efficient, privacy-protected, and future-ready mobility environment for all road users.

What is the role of complementary technologies?

As safety-critical systems, AVs are developed to be compatible with infrastructure and communications systems as they are available today. They do not and will not rely on availability of other information or smart infrastructure from third parties for safety-critical activities. Infrastructure and telecommunications changes are not a precondition for the deployment of AV. Roadway improvements, enhanced digital infrastructure, and vehicle-to-everything (V2X) communications, though, are complementary technologies that could provide additional benefits to the transportation system as a whole, including AVs. The Department does not expect infrastructure owner-operators to make AV-specific investments in physical or digital infrastructure as a condition of AV deployment in the foreseeable future. DOT continues to monitor developments and conduct research on complementary technologies and AVs.

DOT in Action

DOT is in its second decade of close engagement with AVs. The ongoing work to modernize existing regulations and processes is significant. The Department is cognizant of the need to provide near-term safety oversight, regulatory relief, and stakeholder guidance while longer-term initiatives progress and is acting accordingly.

The automotive and technology sectors are engines of the American economy, **and the development and commercialization of AVs are led by private sector innovation and ingenuity.** DOT, acting through NHTSA, has the statutory responsibility to ensure vehicles operating on the Nation's roads are free of unreasonable risk to safety. In the AV space, **DOT provides industry guidance and safety oversight and works to remove unnecessary barriers**. The Department also provides technical assistance to stakeholders and conducts exploratory research regarding AV interaction with the existing transportation system. These roles create the foundation for DOT's AV-related activities.

The introduction of new technologies can create jurisdictional questions for regulators, including questions about licensing and traffic enforcement. DOT's posture has remained consistent over time. **The division of responsibilities of Federal and State governments continues, and existing DOT authorities can be applied to both automated and manually driven vehicles.** As vehicle safety performance, traditionally regulated by NHTSA, begins to include additional oversight of AV on-road operations, NHTSA's role and that of State and local governments become increasingly complementary: State and local law enforcement must continue to police AV compliance with traffic laws, and violation of traffic laws may also constitute evidence of a potential safety-related defect overseen by NHTSA. Regular engagement between Federal, State, and local government co-regulators is critical to safety assurance.

General Federal oversight of motor vehicle safety, operation of CMVs, transportation of hazardous materials, and public transportation, is briefly described below:

- NHTSA oversees the safety of ADS as motor vehicle equipment including through conducting safety oversight and enforcement, issuing guidance, and setting performance standards.
- FMCSA is responsible for regulating and providing safety oversight of CMVs, including trucks and buses equipped with ADS.
- The Federal Highway Administration (FHWA) is responsible for national traffic control device (*i.e.*, signs, markings, and signals) standards for streets and highways, administers truck size and weight laws and regulations, and assists State, local, and Federal land management agency stakeholders in assessing and responding to the impacts of the integration of AVs on the Nation's roadway system.
- The Federal Transit Administration (FTA) conducts research, demonstrations, and technology transfer related to automated transit buses.
- The Pipeline and Hazardous Materials Safety Administration (PHMSA) oversees the safety of hazardous materials in transportation, including transportation by AVs.
- The Office of the Secretary (OST) supports research, demonstration, and stakeholder engagement activities, complementing OA activities.

The sections below outline how DOT executes these functions, in support of the AV goals outlined above.

What about a Federal Framework?

DOT believes that the existing set of Federal authorities and rules provides the basis for a Federal regulatory framework that supports safe AV deployment while fostering public trust. Using these authorities, NHTSA's AV framework activities include providing safety oversight, removing unintended barriers to innovation, issuing industry guidance, and developing performance standards. NHTSA and other DOT Operating Administrations seek to establish Federal leadership in overseeing national AV deployments, while respecting traditional State authority over rules of the road and relying on State enforcement resources to address traffic law violations. The Department will continue to use its convening powers to bring together State and local government stakeholders to discuss any jurisdictional issues surrounding AV deployments. The Department will also continue to work with stakeholders to identify and resolve other specific barriers to AV development and deployment.

Safety Oversight and Enforcement

Through its oversight and enforcement authorities, DOT works to ensure that new technologies meet rigorous safety standards before and after they reach the road. By prioritizing safety, DOT supports American innovation and the deployment of AV technologies that can reduce crashes, save lives, and build public trust.

Select Activities

- **Conducting Defect Investigations and Recalls**: NHTSA has broad enforcement authority that applies to existing and new automotive equipment. In recent years, NHTSA has launched a number of defect investigations into AV developers and has pushed for and overseen several recalls.
- **Sharpening the Standing General Order Reporting Requirements:** NHTSA has streamlined crash and incident reporting requirements for crashes involving ADS and Level 2 driving automation to focus on critical safety information while removing unnecessary and duplicative requirements.[5]
- **Developing Operational Safety Regulations for ADS-equipped CMVs**: FMCSA is in the process of modernizing regulations regarding the safe operation of CMVs. These rulemaking activities would, if finalized, amend certain Federal Motor Carrier Safety Regulations (FMCSR) to ensure the safe introduction and oversight of ADS-equipped CMVs onto the Nation's roadways.[6]
- **Facilitating Safe Transportation of Hazardous Materials:** PHMSA published an advance notice of proposed rulemaking (ANPRM) to obtain stakeholder input on potential revisions to

[5] https://www.nhtsa.gov/laws-regulations/standing-general-order-crash-reporting.

[6] *Motor Carrier Operation of Automated Driving System (ADS)-Equipped Commercial Motor Vehicles (2126-AC17).*

the Hazardous Materials Regulations (HMR) to facilitate the safe transportation of hazardous materials using highly automated transportation systems.[7]

Modernization of Motor Vehicle Safety Regulation

DOT seeks to provide regulatory relief using existing tools and processes and establish a clear regulatory foundation for the future.

Select Activities

- **Leveling the Playing Field for Domestic Manufacturers:** NHTSA announced that it has expanded eligibility to vehicles produced domestically for certain exemption programs that have long been available for imported vehicles.[8]
- **Streamlining Exemptions**: NHTSA has streamlined internal processes and is working to issue new application instructions and guidance for manufacturers planning to submit exemption applications.[9] Other improvements include increased oversight flexibility for active exemptions and a commitment to faster processing times.
    - **Zoox Exemption:** Zoox asked NHTSA for exemptions from eight safety standards to deploy its purpose-built robotaxis commercially. On July 31, 2026, NHTSA published a notice in the *Federal Register* granting the request.[10]
    - **Holon Exemption:** Holon has sought permission for exemptions from seven safety standards to allow for commercial deployment of a transit shuttle without manual controls. On September 29, 2025, NHTSA published a notice in the Federal Register seeking comment on the request.[11]
- **Modernizing the FMVSS:** NHTSA has already published several rulemaking proposals to modernize the FMVSS. In each, the rulemaking would address standards for vehicles with automated driving systems and no manual controls.
    - FMVSS No. 102, "Transmission shift position sequence, starter interlock and transmission braking effect."[12]

[7] https://www.federalregister.gov/documents/2025/12/04/2025-21970/hazardous-materials-modernizing-regulations-to-facilitate-transportation-of-hazardous-materials#addresses.

[8] NHTSA, AVEP Program Open Letter, April 24, 2025, available at: https://www.nhtsa.gov/sites/nhtsa.gov/files/2025-04/automated-vehicle-exemption-program-domestic-exemptions-2025.pdf

[9] NHTSA, Part 555 Open Letter, April 24, 2025, available at: https://www.nhtsa.gov/sites/nhtsa.gov/files/2025-06/part-555-letter-june-2025.pdf

[10] 91 FR 48494.

[11] https://www.federalregister.gov/documents/2025/09/29/2025-18812/holon-receipt-of-application-for-temporary-exemption-from-various-requirements-of-the-federal-motor.

[12] Federal Motor Vehicle Safety Standards; Modernization of FMVSS No. 102 To Accommodate ADS-Equipped Vehicles, 91 FR 12532 (March 16, 2026) (RIN 2127-AM72).

- FMVSS No. 103, "Windshield defrosting and defogging systems," and FMVSS No. 104, "Windshield wiping and washing systems."[13]
- FMVSS No. 108, "Lamps, reflective devices, and associated equipment."[14]
- FMVSS No. 110, "Tire selection and rims and motor home/recreation vehicle trailer load carrying capacity information for motor vehicles with a GVWR of 4,536 kilograms (10,000 pounds) or less."[15]
- FMVSS No. 135, "Light vehicle brake systems."[16]

- NHTSA is also working on additional proposed rules related to removing barriers to novel designs enabled by ADS in the following:
  - FMVSS No. 101, "Controls and displays."[17]
  - FMVSS No. 11, "Rear Visibility".[18]
  - FMVSS No. 126, "Electronic stability control systems for light vehicles."[19]
  - FMVSS No. 201, "Occupant protection in interior impact" and FMVSS no. 208, "Occupant crash protection".[20]
- **Establishing minimum performance standards for ADS:** NHTSA is in the process of developing an ANPRM to establish objective performance standards for ADS competency.[21]
- **Supporting a Harmonized Global Marketplace:** NHTSA serves as the lead U.S. representative within the United Nations Economic Commission for Europe (UNECE) Working Party on Automated/Autonomous and Connected Vehicles (GRVA), shaping global technical regulations (GTRs) to ensure that international automated driving standards align with American safety priorities and performance-based oversight. The agency has recently focused on steering the safety approach for the 2026 ADS GTR, which standardizes how ADS manage dynamic driving tasks and post-deployment monitoring.

Research, Stakeholder Engagement, and Information Sharing

DOT supports stakeholders and strengthens the Nation's transportation system through research, deployment initiatives, stakeholder engagement, and information sharing to advance understanding and support safe AV integration.

[13] Federal Motor Vehicle Safety Standards; Modernization of FMVSS No. 103 and FMVSS No. 104 To Accommodate ADS-Equipped Vehicles; Incorporation by Reference, 91 FR 12537 (March 16, 2026) (RIN 2127-AM71).

[14] RIN: 2127-AM70.

[15] Federal Motor Vehicle Safety Standards; Modernization of FMVSS No. 110 To Accommodate ADS-Equipped Vehicles, 91 FR 16172 (April 1, 2026) (RIN 2127-AM96).

[16] RIN: 2127-AN00.

[17] RIN: 2127-AM07.

[18] RIN: 2127-AN05.

[19] RIN: 2127-AN03.

[20] RIN: 2127-AN04.

[21] RIN: 2027-AM99.

Select Activities

- **Updating Stakeholder Guidance:** NHTSA is in the process of preparing updated voluntary guidance documents, to update and supplement *ADS 2.0: A Vision for Safety* (2017). The new guidance will address relevant developments in the technology and industry over the last decade, and include such topics as remote operations and assistance, software updates, guidance for safe and effective interaction of ADS-equipped vehicles with emergency responders, and safety management systems.[22] (NHTSA)
- **Rural Autonomous Vehicle (RAV) Research Program:** In March 2026, DOT awarded $25 million from a congressionally mandated demonstration program focused on deployment of AVs in rural areas. (Office of the Assistant Secretary for Research and Technology (OST-R))
- **Transit Bus Automation Accessibility Research:** FTA is sponsoring research and demonstration activities working towards improved accessibility for people with cognitive, intellectual, sensory, and mobility disabilities for independent travel in conventional and automated transit buses. (FTA/Intelligent Transportation Systems Joint Program Office (ITS JPO))
- **Digitizing Traffic Rules and Regulations for AVs:** This research aims to translate paper-based traffic regulations into machine-readable data to support ADS, with a goal of providing traffic regulation information across jurisdictional boundaries to facilitate compliance. (FHWA/ITS JPO)
- **Developing an Emergency Response Framework for ADS-Equipped CMVs**: This research aims to guide emergency responders in how to interact safely and effectively with ADS-equipped CMVs. The framework will support consistency and standardization related to emergency response protocols for automated CMVs. (FMCSA)
- **AV Shuttles in National Parks:** The ITS JPO and FHWA are partnering with the National Park Service to test AV transit services in challenging domains. (ITS JPO/FHWA)
- **Manual on Uniform Traffic Control Devices (MUTCD):** FHWA intends to incorporate appropriate revisions to the next MUTCD edition that advance the safe integration of AVs onto the roadway, based on results of current research, technology advancements, and collaboration with stakeholders. (FHWA)
- **Interstate Corridor Modernization:** This initiative advances digital infrastructure in partnership with stakeholders to enable real-time data sharing along the interstate system, including for emergency roadway closures and temporary roadway realignments. (FHWA/OST-R)
- **University Transportation Centers (UTCs):** This program funds university research focused on advancing automation in support of technology research and long-term workforce development. These centers are important for cutting-edge technology research and long-term workforce development. (OST-R)

[22] Draft guidance will be added to an existing docket for public comment. https://www.regulations.gov/document/NHTSA-2026-0265-0001.

Conclusion

DOT is optimistic about the potential safety and mobility benefits that automated vehicles may bring for both passenger and freight applications. DOT intends to be deliberate and thoughtful in building new regulatory tools to address the needs of these new technologies while empowering American innovation. America leads ADS.