



Automated Vehicle Policy Framework

ITS America Automated Vehicles Committee

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**June
2025**

Introduction

New technologies continue to revolutionize the way we move, transport goods, and make our transportation system safer. Automated Vehicles (AVs) present a transformational technology and mobility option that has the potential to improve roadway safety, make travel and freight movement more efficient, provide accessible transportation options, and expand economic opportunity.

As the introduction of AVs - whether robotaxis, shuttles, trucks, or other innovative mobility options - continues to move at a fast pace in the U.S., federal leadership is needed to guide and support the safe and scaled deployment of AVs across the country.

To that end, the Intelligent Transportation Society of America (ITS America) has released its **AV Policy Framework** to help guide federal policymakers and decisionmakers on facilitating the development, deployment, and ongoing safety of AVs in the U.S.

ITS America is the only national organization bringing together the private and public sectors and academia to advance the deployment of intelligent transportation. This **AV Policy Framework** reflects our diverse membership and viewpoints, striving to find consensus positions on policy issues regarding data collection and sharing, safety testing, digital infrastructure needs, regulation modernization, and more.

Federal leadership on AVs now will help ensure that the U.S. continues to be the global leader in this field for years to come. AVs are an important safety, efficiency, and accessibility innovation - created and developed here in the U.S. - but federal leadership is necessary to truly reap the benefits of autonomous mobility in communities across the United States. This **AV Policy Framework** provides a blueprint to a path forward towards safe and scaled deployment.

Automated Vehicle Policy Framework

This document is intended to inform a federal framework for automated vehicles. Regarding the state and federal roles, USDOT should continue its efforts to oversee the safety aspects of vehicle design, ADS performance, and any regular FMVSS updates that apply to ADS-equipped vehicles, as defined in the National Traffic and Motor Vehicle Safety Act related to vehicle or equipment performance. The USDOT framework for AVs should preserve state and local government ability to enforce policies such as local laws, as well as insurance and titling requirements.

Data Sharing

NHTSA currently collects safety data on Automated Driving System (ADS)-equipped vehicles through its Standing General Order (SGO) ([first order issued in August 2021](#)) and operational data on ADS-equipped vehicles through its Automated Vehicle Transparency and Engagement for Safe Testing (AV TEST) Initiative ([launched in June 2020](#)). Thirty-nine companies and organizations have voluntarily submitted data to AV TEST to date, and 114 companies are currently required to report incident data to NHTSA under the existing SGO.

The proposed centralized database would bring the safety data collected under the SGO and the geographic and operational data collected through AV TEST into a single, centralized data sharing platform. The existing data reporting mechanisms for the SGO and AV TEST could be augmented to include additional data elements.

Centralizing & Enhancing Data Collection

- USDOT should create a centralized database and data sharing mechanism for AV operations and safety that builds upon existing federal data collection efforts while reducing redundancy and harmonizing activities at different jurisdictional levels.
 - The resulting centralized data sharing platform could include a tiered access to different safety and operational information for states and cities where automated vehicles are actively deployed on public roads in their jurisdictions, while also streamlining data sharing requirements for industry.
 - This system under the framework should allow for states and cities to have operational information for active AV operations in their jurisdiction.
- USDOT should proactively act upon data collected and shared with the Department to continually refine regulations and ensure the ongoing safety of AV operations in the U.S.

- As part of this federal data collection and sharing standard, NHTSA should expand the Standing General Order to include the following:
 - Vehicle Miles Traveled (VMT) for ADS-equipped vehicles while ADS is engaged for jurisdictions.
 - Zip code level location of AV operations on public roads for applicable ADS applications, such as rideshare and local deliveries.

Confidential Business Information (CBI) Protections:

- Require AV companies to submit data with CBI clearly marked. The database system should be designed to automatically redact or aggregate CBI-marked fields before data is shared with non-federal users, ensuring that data that meaningfully fosters public trust is shared.
 - USDOT should work with AV companies, states, and localities to ensure that CBI-marked data balances the need for critical safety information.

Reporting Timeline and Thresholds:

- Require baseline reporting of AV incidents within 120 hours per NHTSA's SGO (as amended and in effect June 16, 2025).
- USDOT should establish a minimum threshold for incident reporting, including damage to both life and public property and interruption of the flow of traffic.
- Require specific reporting of incidents when emergency response operations are impeded by AV operations. "Impeded" is defined as when public safety or emergency response personnel must move, whether by contacting the AV operator, towing the vehicle, or moving it themselves, because the vehicle is obstructing access to an active emergency event.
- Require specific reporting of incidents that stop the flow of traffic or impede public transit or rail operations to the extent that the vehicle must be moved by the AV company/operator or public safety personnel, or towed.

ADS Safety

Safety Case

- USDOT should work with stakeholders to identify a consistent approach for developing and documenting required Safety Cases applied to ADS equipped vehicles, including defining criteria and evaluation metrics within a Safety Case.
 - A safety case could address the following criteria¹:
 - Description of the ADS hardware and software components, sensor suite capabilities and functionality, and how the ADS integrates into the rest of the vehicle.
 - Detailed description of how the ADS performs all aspects of driving on a road – including braking, accelerating, turning, merging lanes, signaling, and taking evasive action when necessary.
 - Details on ADS capabilities, including behavioral competencies in normal driving and crash avoidance capabilities.
 - Safety standards for the rest of the vehicle (outside of ADS performance) to ensure compliance with existing FMVSS where necessary.
 - Explanation of how the ADS detects and responds to crashes and immobilizations.

Test Track and Competency Tests

- USDOT should work with stakeholders to develop a set of driving tests that could be performed in the physical world under which manufacturers would certify that their vehicle's ADS system performance demonstrates basic driving competency within an operational design domain (ODD).
 - This should complement a robust safety case and further testing of AVs that is grounded in real-world driving scenarios and fosters greater safety for all users of the transportation system.
 - Such tests should aim to solve existing transportation safety challenges and address pervasive and known causes of crashes.
- USDOT should develop a mechanism to verify these tests and evaluate whether there is a need to provide for an additional independent, third-party assessment of the ADS.

¹ Other examples of what a Safety Case could include are items previously highlighted in USDOT's AV STEP Advanced Notice of Proposed Rulemaking with further clarity and definition

- The certification of the ADS specifically would be reported to USDOT following prescribed competency test criteria such as:
 - The ADS system's detection of and response to road users, which may include things like other passenger and commercial vehicles, cyclists, pedestrians, emergency response vehicles, public safety and construction personnel, as well as animals and inclement weather (within the ADS' ODD).
 - The ability for a Level 4 system to incorporate the SAE J3016 definition of achieving a minimal risk condition.
 - The ability for a Level 4/5 system to detect limits of its ODD and respond correctly.

Ongoing Safety Assurance

- USDOT should identify and evaluate feedback mechanisms for state and local governments to petition the federal government on the safety case and competency tests for an ADS-equipped vehicle. This includes evaluating whether current petition and feedback processes designed for human-driven vehicles are clear and sufficient for AVs that are driven by an automated driving system.

Facilitating and Scaling AV Deployments

Demonstration Program

- USDOT should develop and implement a national AV demonstration program that is voluntary and open to vehicle manufacturers, ADS developers, and fleet operators.
 - Applicants under this program could receive an exemption for vehicle use and would have to complete the safety case and certify the competency of their ADS system per USDOT's prescribed criteria.
 - A focused demonstration program from the federal government would help provide transparency to the public as well as exposure to the technology which helps foster trust and future AV adoption. Participating entities would be required to disclose performance data to NHTSA and jurisdictions of operation to demonstrate the safety of ADS performance.
 - Such a demonstration program should include both light-duty vehicles, commercial motor vehicles, as well as ADS-equipped transit operations, and other modes with automation that improve expanded access to mobility options through a multimodal transportation ecosystem.

Regulation Modernization

- NHTSA should modernize FMVSS to reflect the realities of AV deployments on the road today and into the future. This may necessitate the need for a new FMVSS for ADS.
- USDOT should continue to provide clarity around rulemakings and previous policy determinations regarding the safety of automated vehicles, the need for human drivers, and the need for manual controls.
- FMCSA should provide a clear path for all Commercial Motor Vehicles (CMVs) to use innovative warning beacons (e.g., cab-mounted warning beacons) instead of out-of-date warning devices that require drivers to get out of the vehicle on the side of the road when it may be unsafe. FMCSA should approve the use of innovative warning devices, and an ADS-Equipped CMV rulemaking should include a long-term update to the warning device regulation.
- NHTSA should modernize FMVSS to facilitate and support the safe introduction of AVs with innovative designs, including vehicles that are designed from the ground up for purposes such as wheelchair accessible personal transportation, connections to mass transit, and facilitating deliveries. This process should include coordination with other relevant federal agencies as appropriate.

Considerations for Data, Infrastructure, and Communications

- USDOT should consider ways to encourage infrastructure development that can accommodate AV deployments and human drivers, including the digitization of infrastructure assets, high-definition mapping, and road markings along with communications networks for AVs and consistent data standards.
- USDOT should provide a national framework for the digitization of infrastructure assets, including encouraging states to utilize current methods such as Workzone Data Exchange.
- USDOT should work to provide consensus around industry terminology and ADS behavioral concepts, interpretation of traffic laws, consistency on data standards for ADS operations, and the modernization of the MUTCD for ADS-equipped vehicles of all levels.
- A federal AV policy framework should include considerations for real-time communications and connectivity as appropriate among AVs, as well as communication with law enforcement and emergency response personnel.

Research

- USDOT should strongly support ADS research throughout the lifecycle of AV-related projects, including the design, manufacture, testing, deployment, operations, evaluation, and end-of-life of ADS-equipped vehicles, while allowing for continued researcher access to motor vehicle and ADS safety data for the purpose of advancing safety and technology development.
- USDOT should streamline and provide for the timely the release of safety research related to ADS and automation.

Cybersecurity

- USDOT should require ADS developers and vehicle manufacturers to have a robust and comprehensive cybersecurity plan which includes policies and procedures for detecting and responding to cyberattacks, hacks, and other unauthorized access to vehicle control, as well as the timely fixing of software vulnerabilities.

Accessibility

- USDOT should work with states to ensure that unlicensed individuals are not prevented from using fully automated personal vehicles or robotaxis that do not require human intervention (Level 4 and 5) while complying with state and local traffic laws and rules.

Stakeholder Engagement

- USDOT must continue strong stakeholder engagement from the entire transportation community as AVs are developed and deployed on public roads. Public and private sector engagement is critical to the safe and accessible adoption of AVs.
 - This includes AV companies, developers, vehicle OEMs, city, state, county, regional officials, labor, associations, traffic safety advocates, representatives of vulnerable road users, research/academia, and others.
 - This could be a federal working group or another centralized information sharing mechanism. Not only should it be proactive, but it should also function as a feedback mechanism for localities that already have AVs deployed on their roads.
- USDOT should provide technical assistance as well as technology transfer programming and outreach to states and localities regarding AV testing, deployment, safety, policy, and other related topics.
- USDOT should build trust and prepare communities for AV deployments by facilitating public education around automated transportation.

Workforce

- USDOT should encourage the deployment of AVs to occur in a manner that acknowledges and supports workforce transitions, promotes skills development, and fosters economic opportunity. The framework should facilitate collaboration among industry, government, and workforce stakeholders to understand and anticipate labor impacts and to invest in the future of work in the transportation sector.