

SECTION 2: TECHNICAL ASSISTANCE TO STATES

Best Practices for Legislatures Regarding Automated Driving Systems

OVERVIEW

The National Highway Traffic Safety Administration (NHTSA) of the U.S. Department of Transportation (DOT) is prepared to assist with challenges that States face regarding the safe integration of SAE Level 3 and above Automated Driving Systems (ADSs) on public roads. Given that vehicles operating on public roads are subject to both Federal and State jurisdictions and States are beginning to regulate ADSs, NHTSA has developed this section. It is designed to clarify and delineate the Federal and State roles in the regulation of ADSs and lay out a framework that the States can use as they write their laws and regulations surrounding ADSs to ensure a consistent, unified national framework.

NHTSA is working to bring ADSs safely onto the Nation's roadways in a way that encourages ADS entities (manufacturers, suppliers, transit operators, automated fleet operators, or any entity that offers services utilizing ADSs), consumer advocacy organizations, State legislatures, and other interested parties to work together in a shared environment. As the technology grows and the horizon of ADS changes rapidly, it is essential for each of these entities and interested parties to exercise due diligence in staying ahead of activity in a proactive—rather than reactive—manner.

States have begun to propose and pass legislation concerning ADSs. Public comments to NHTSA suggest that these proposals present several disparate approaches for adding and amending State authority over ADSs. Public comments and some State officials have asked NHTSA to provide guidance (and eventually regulations) that would support a more national approach to testing and deploying ADSs.

Further, in a prior collaborative effort between States and the Federal Government, NHTSA entered a 2-year cooperative agreement (beginning in September 2014) with the American Association of Motor

Vehicle Administrators (AAMVA) under which the Autonomous Vehicle Best Practices Working Group was created. The working group was chartered to organize and share information related to the development, design, testing, use, and regulation of ADSs and other emerging vehicle technology. Based on the working group's research, a report is currently being developed to assist jurisdictions in enhancing their current ADS regulations or considering developing new legislation.³¹ The goal of the report is to promote uniformity amongst jurisdictions and provide a baseline safety approach to possible challenges to the regulation of ADS and testing the drivers who operate them.

Coinciding with the development of AAMVA's report, NHTSA has continued to work with State stakeholders including the National Conference of State Legislatures (NCSL) and the Governors Highway Safety Association (GHSA) to identify emerging challenges in the integration of ADSs and conventional motor vehicles.

Based on public input and the Agency's ongoing work with partners such as NCSL, GHSA, and AAMVA, NHTSA offers these Best Practices and specific legal components States should consider as we all work toward the shared goal of advancing safe ADS integration. The objective is to assist States in developing ADS laws, if desired, and creating consistency in ADS regulation across the country.

While technology is evolving and new State legislative language is still being drafted and reviewed, States can proactively evaluate current laws and regulations so as not to unintentionally create barriers to ADS operation, such as a requirement that a driver have at least one hand on the steering wheel at all times.

NHTSA encourages States to review others' draft ADS policies and legislation and work toward consistency. The goal of State policies in this realm need not be uniformity or identical laws and regulations across all States. Rather, the aim should be sufficient consistency of laws and policies to promote innovation and the swift, widespread, safe integration of ADSs.

States are encouraged to maintain a good state of infrastructure design, operation, and maintenance that supports ADS deployment and to adhere to the Manual on Uniform Traffic Control Devices (MUTCD), the existing national standard for traffic control devices as required by law. For example, items that may be considered a low priority now because of the presence of a human driver may be considered a higher priority as vehicle systems begin to rely more on machine vision and other techniques to detect where they are in a given lane. In addition, States are urged to continue to work with the Federal Highway Administration (FHWA) and the American Association of State Highway and Transportation Officials (AASHTO)³² to support uniformity and consensus in infrastructure standards setting. This will support the safe operation of ADSs and ensure the safety of human drivers, who will continue to operate vehicles on the roads for years to come.

FEDERAL AND STATE REGULATORY ROLES

In consideration of State activity regarding ADSs, as well as NHTSA's activity at the Federal level, it is important to delineate Federal and State regulatory responsibility for motor vehicle operation.

These general areas of responsibility should remain largely unchanged for ADSs. NHTSA is responsible for regulating motor vehicles and motor vehicle equipment, and States are responsible for regulating the human driver and most other aspects of motor vehicle operation.

Further DOT involvement includes safety, evaluation, planning, and maintenance of the Nation's infrastructure through FHWA as well as regulation of the safe operation of interstate motor carriers and commercial vehicle drivers, along with registration and insurance requirements through the Federal Motor Carrier Safety Administration (FMCSA).

DOT strongly encourages States to allow DOT alone to regulate the safety design and performance aspects of ADS technology. If a State does pursue ADS performance-related regulations, that State should consult with NHTSA.

NHTSA'S RESPONSIBILITIES	STATES' RESPONSIBILITIES
<ul style="list-style-type: none"> • Setting Federal Motor Vehicle Safety Standards (FMVSSs) for new motor vehicles and motor vehicle equipment (with which manufacturers must certify compliance before they sell their vehicles)³³ • Enforcing compliance with FMVSSs • Investigating and managing the recall and remedy of noncompliances and safety-related motor vehicle defects nationwide • Communicating with and educating the public about motor vehicle safety issues 	<ul style="list-style-type: none"> • Licensing human drivers and registering motor vehicles in their jurisdictions • Enacting and enforcing traffic laws and regulations • Conducting safety inspections, where States choose to do so • Regulating motor vehicle insurance and liability

BEST PRACTICES FOR LEGISLATURES

As States act to ensure the safety of road users in their jurisdictions, NHTSA continually monitors and reviews language to stay informed on State legislation. In reviewing draft State legislation, the Agency has identified common components and has highlighted significant elements regarding ADSs that States should consider including in legislation. As such, NHTSA recommends the following safety-related best practices when crafting legislation for ADSs:

- **Provide a “technology-neutral” environment.**

States should not place unnecessary burdens on competition and innovation by limiting ADS testing or deployment to motor vehicle manufacturers only. For example, no data suggests that experience in vehicle manufacturing is an indicator of the ability to safely test or deploy vehicle technology. All entities that meet Federal and State law prerequisites for testing or deployment should have the ability to operate in the State.

- **Provide licensing and registration procedures.**

States are responsible for driver licensing and vehicle registration procedures. To support these efforts, NHTSA recommends defining “motor vehicle” under ADS laws to include any vehicle operating on the roads and highways of the State; licensing ADS entities and test operators for ADSs; and registering all vehicles equipped with ADSs and establishing proof of financial responsibility requirements in the form of surety bonds or self-insurance. These efforts provide States with the same information as that collected for conventional motor vehicles and improve State recordkeeping for ADS operation.

- **Provide reporting and communications methods for Public Safety Officials.**

States can take steps to monitor safe ADS operation through reporting and communications mechanisms so that entities can coordinate with public safety agencies. The safety of public safety



officials, other road users, and ADS passengers will be improved with greater understanding of the technology, capabilities, and functioning environment. States should develop procedures for entities to report crashes and other roadway incidents involving ADSs to law enforcement and first responders.

- **Review traffic laws and regulations that may serve as barriers to operation of ADSs.**

States should review their vehicle codes, applicable traffic laws, and similar items to determine if there are unnecessary regulatory barriers that would prevent the testing and deployment of ADSs on public roads. For example, some States require a human operator to have one hand on the steering wheel at all times – a law that would pose a barrier to Level 3 through Level 5 ADSs.