



American Association of
Motor Vehicle Administrators

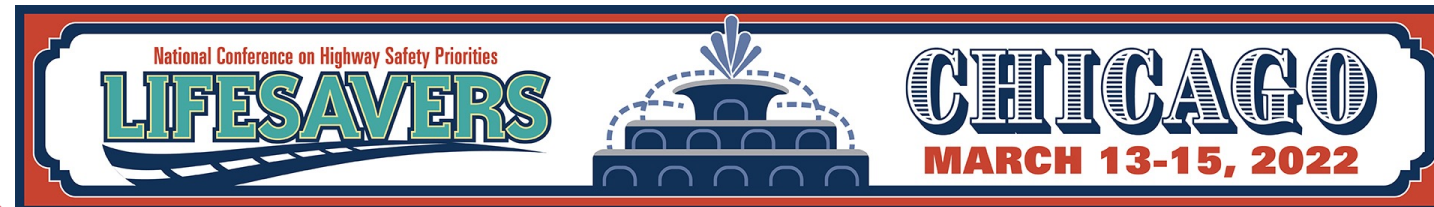
Safe Testing and Deployment of Vehicles Equipped with Automated Driving Systems Guidelines, Edition 2

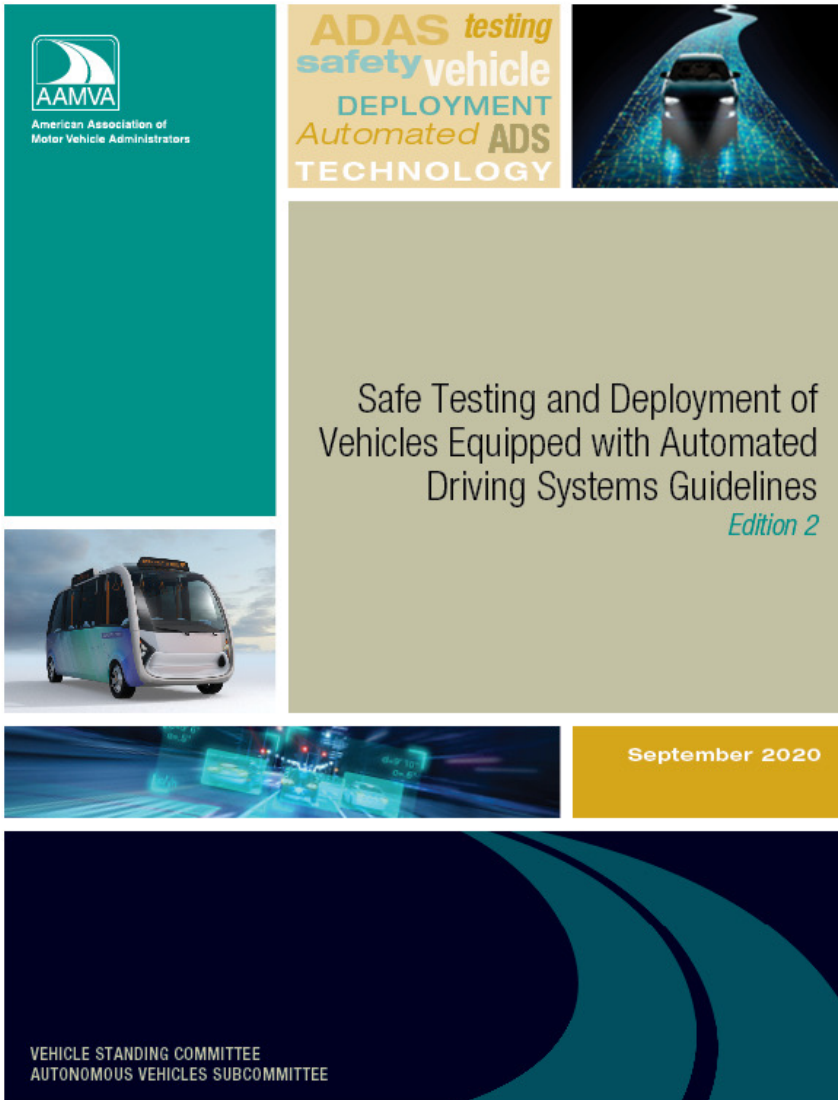
March 13, 2022

(VT/AD) VT and the 21st Century: State Motor Vehicle
Code

OUR VISION

*Safe drivers
Safe vehicles
Secure identities
Saving lives!*





Safe Testing and Deployment of Vehicles Equipped with Automated Driving Systems

Published October 2020

Purpose:

To facilitate a consistent regulatory framework to balance public safety with the advancement of vehicle innovations, and ultimately to reduce crashes, fatalities and injuries.

Problem Statement 1:

Automated driving systems significantly reduce the role of the driver, which means that some motor vehicle codes will need to be reconsidered. The incorporation of driving behavior into in-vehicle software also generates pressure to harmonize the rules of the road across jurisdictions.



Recommendations for Jurisdictions

- 6.9.1. Refer to Transportation Research Board NCHRP20-102(07) Implications of Automation for Motor Vehicle Codes to identify traffic and other laws that may need to be repealed or revised to accommodate ADS technology.

Published in October 2018, the objective of this TRB research was to provide state departments of transportation and motor vehicle departments with guidance and resources to assist with the legal changes that will need to occur with the roll out of connected and automated vehicles.

This research:

- Provides a review of applicable existing laws and regulations that may need reconsideration as connected vehicles (CV) and connected and automated vehicles (AV) become more widely used with a focus on how these codes need to be revised (and how soon).
- Outlines how expected changes to motor vehicle laws, regulations, and statutes related to CV and AV may affect current driving practices.
- Identifies barriers to implementation of new Rules of the Road resulting from the roll out of CV and AV and develop strategies to overcome them.
- Addresses processes and stages for modifying relevant motor vehicle code, laws, regulations, and statutes.

Problem Statement 2:

Low-speed automated shuttles are difficult to define because of their rapidly changing designs. As a result, jurisdictions may find it difficult to adequately identify these vehicles in their statutes and regulations such that jurisdictions allow for testing and deployment in a technology-neutral manner.

Additionally, many jurisdictions have codified the design requirements an LSV must meet according to FMVSS No. 500. Many low-speed automated shuttles would fall within the definition of an LSV. Although NHTSA's exemptions would allow these vehicles to operate despite FMVSS No. 500, jurisdictions that have codified FMVSS No. 500 may need to modify their motor vehicle codes.

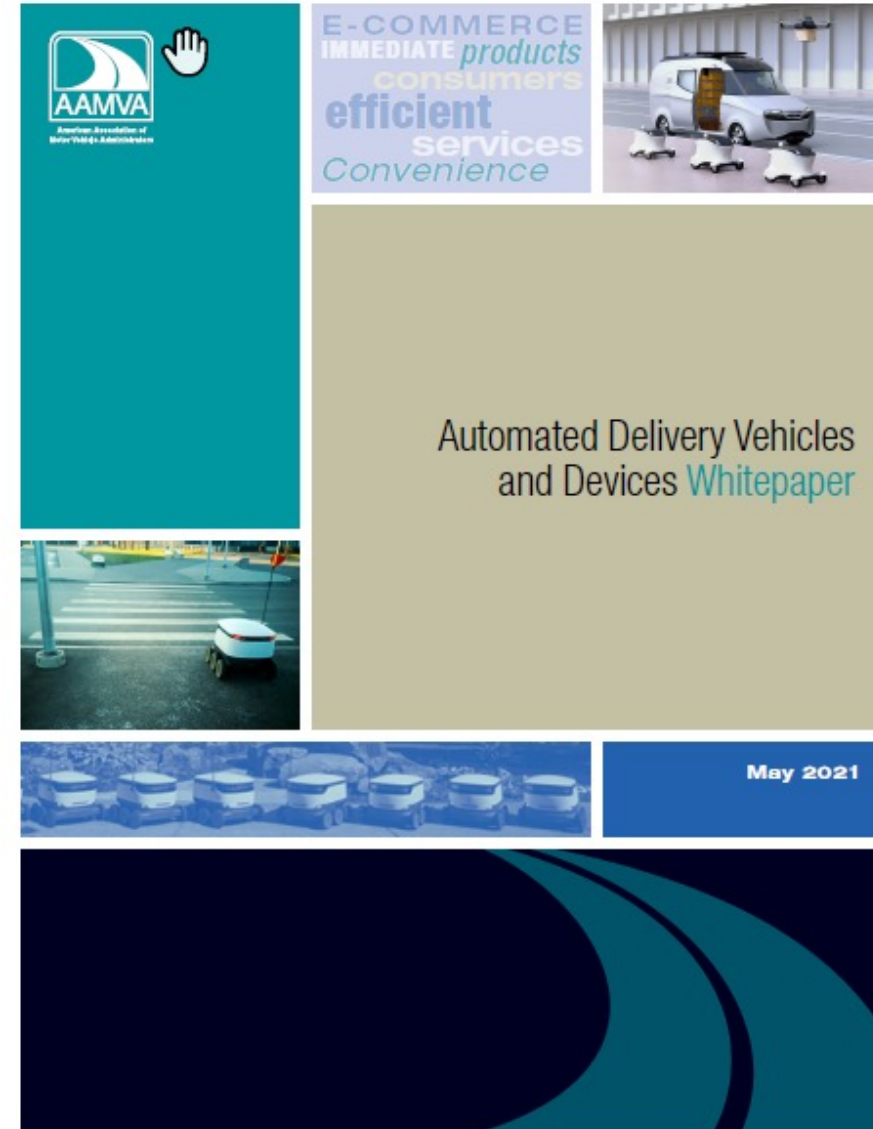
To help jurisdictions meet this challenge ...

Automated Delivery Vehicles and Devices Whitepaper

Purpose:

An adjunct document to meet the immediate need of the AAMVA community until the content can be incorporated into a Third Edition of the *Safe Testing and Deployment of Vehicles Equipped with Automated Driving Systems* document.

Document available at [AAMVA - Best Practices and Model Legislation](#)



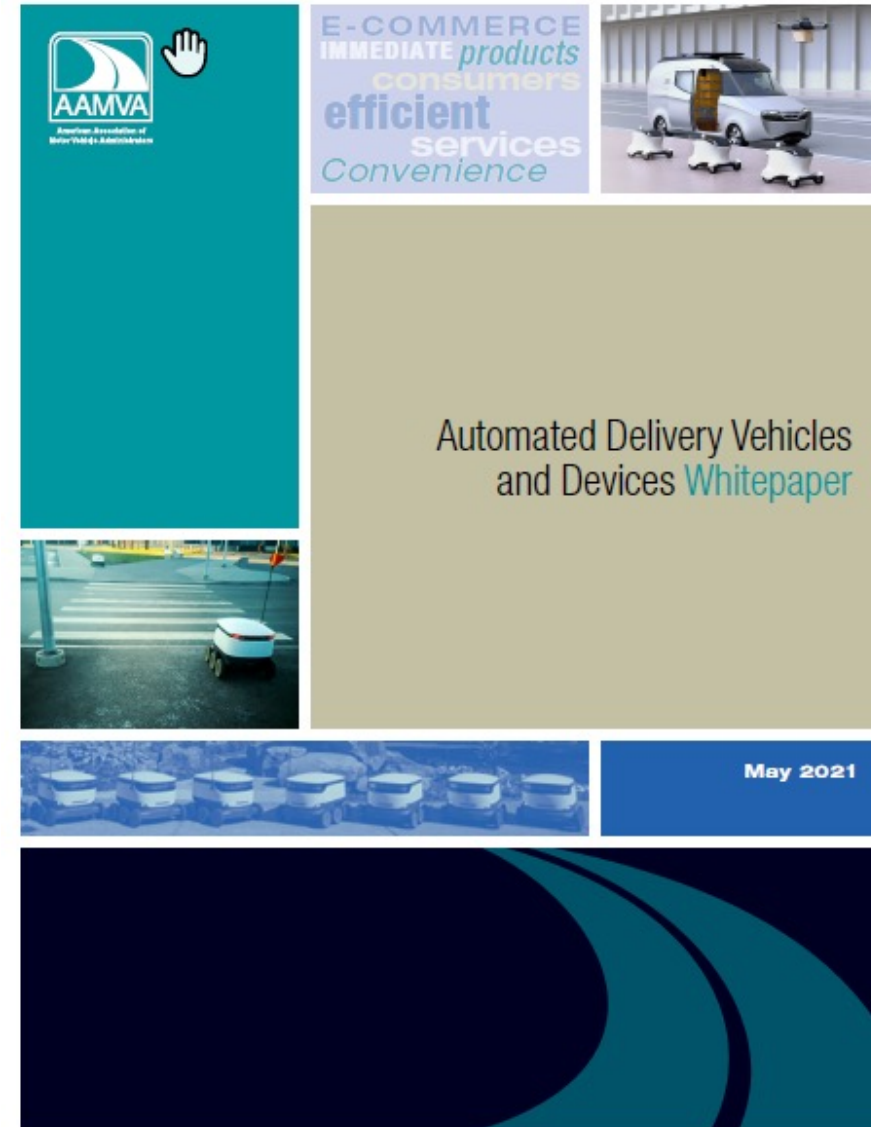
Top Lessons Learned:

1. Clear distinction between vehicles

- Automated Delivery Vehicles (ADV) operating within vehicle infrastructure should be subject to jurisdictional motor vehicle regulations
- Personal Delivery Devices (PDD) operate in pedestrian / bicycle spaces and should not be subject to jurisdictional motor vehicle regulations
- Local registration of PDD could be considered based on local needs

2. Jurisdictions should develop oversight processes for PDD involving state, local and enforcement agencies

- Provide clear guidance for how to operate on sidewalks and/or roadways
- Detail requirements for testing, braking, operation, visibility and other factors
- Establish protocols for emergencies and enforcement interaction





Problem Statement 3:

Companies may build vehicles with software (or push software updates after manufacture) that causes the vehicle to disobey traffic laws.



United States Senate

WASHINGTON, DC 20510

February 8, 2022

Mr. Elon Musk
Co-founder and Chief Executive Officer
Tesla
3500 Deer Creek Road
Palo Alto, California 94304

Dear Mr. Musk,

We write to express our significant concerns over recent reports of flaws with Tesla's Autopilot and Full Self-Driving (FSD) systems. While advanced driver assistance and automated driving systems have the potential to improve safety, they must be implemented responsibly and comply with existing traffic laws. When these systems do not meet these essential requirements, they put all of those who use our roads at risk of injury or death.




We are deeply troubled by Tesla’s design choices that seemingly encourage unsafe driving habits. Last October, Tesla’s FSD version 10.3 update included three different driving profiles – Chill, Average, and Assertive – and implemented a “rolling stops” feature, allowing cars to drive through stop signs at up to 5.6 miles per hour instead of making a complete stop. The Assertive FSD profile specifically states that cars will have smaller following distances and may complete rolling stops.¹ Last week, Tesla issued a recall for the nearly 54,000 vehicles running this version of FSD or newer.² While this recall is a step towards reducing unsafe driving and crashes, it should not have been needed in the first place – Tesla should not design and implement features for its cars that do not follow the rules of the road.

These are letter excerpts and do not represent the letter’s entire content.



Thank you for your attention to this important matter, and we await your response.

Sincerely,


RICHARD BLUMENTHAL
United States Senate


EDWARD J. MARKEY
United States Senate

The AAMVA Automated Vehicle Subcommittee is committed to keeping pace with the evolution of vehicle technology.

To keep our report relevant and to provide the best possible guidance to the AAMVA community, **Edition 3 development is in-progress with publication anticipated no later than September 30, 2022.**

CONTACT:

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