

AUTONOMOUS VEHICLES

**Legislative Comparisons,
Observations and
Recommendations:
Executive Committee**

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at the University of Washington School of Law

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Who We Are & How We Can Help

- UW Law Clinical Program
- Intersection of Public Policy & Technology
- Our mission is to provide continued guidance and counsel for how Washington should proceed in enacting legislation supportive of autonomous vehicle innovation.
- Regulating technology reasonably foreseeable over the next few years.



Overview

1. **Emerging** Federal News & Progress, with Private-Sector Response
2. **Examine** What's Happening Around the Country Legislatively
3. **Existing** Washington Statutory Provisions & Definitions
4. **Highlight** Washington Statutes Needing Update
5. **Understand** Subcommittee Concerns & Offer Recommendations
6. **Provide** Final Recommendations

Emerging Federal News & Progress

- USDOT Guidance: Preparing for the Future of Transportation, Automated Vehicles 3.0 (Oct. 4, 2018)
- USDOT emphasizes:
 - Safety as the Priority
 - Remaining Technologically Neutral
 - Modernizing Regulation
 - Consistent National Regulation
 - Preparation for Automation
 - Protecting Current Freedoms



Emerging Federal News & Progress

USDOT AV 3.0 Best Practices for State Legislatures:

1. Avoid overly prescriptive or unnecessary legislation that creates barriers to **(1) testing, (2) deployment, or (3) operation**;
2. Use terminology developed through voluntary, consensus-based technical standards; and
3. Review current infrastructure needs and weaknesses.

Emerging Federal News & Progress

Private Sector Response to USDOT 3.0:

“We are grateful to USDOT for providing a sound, flexible, and safety-oriented framework for self-driving vehicles.”

-Joint-Industry Trucking Statement (Embark Trucks, Kodiak Robotics, Starsky Robotics, TuSimple)

“We appreciate the Department’s commitment to aligning government, industry, and other stakeholders toward the safe development of this technology.”

-Uber Spokeswoman Sarah Abboud

Where Do We Go In Washington?

- Washington will “maintain its leadership role,” “enabling safe testing and operation” and “nurture, cultivate and advance” A/V technology
- Promote uniformity between federal, state & local legislation
- Focus on upcoming legislative session and current technology



Examining our Definitions & Statutes



Noteworthy Preemption Statutes

Texas SB 2205

Sec. A545.452.

SUBCHAPTER AND DEPARTMENT GOVERN EXCLUSIVELY.

(a) Unless otherwise provided by this subchapter, the following are governed exclusively by this subchapter:

(1) Automated motor vehicles, including any commercial use or operation of automated motor vehicles; and

(2) Automated driving systems.

(b) A political subdivision of this state or a state agency may not impose a franchise or other regulation related to the operation of an automated motor vehicle or automated driving system.

Nevada AB 69

Sec. 5.6.

1. Notwithstanding any other provision of law and except as otherwise provided in this chapter, only the Department may adopt regulations or impose any requirement relating to the technology of an automated driving system or autonomous vehicle, and any such regulations adopted, ordinance enacted or requirement imposed by another governmental entity or local government is void.
2. A local government shall not impose any tax or fee or impose any other requirement on an automated driving system or autonomous vehicle or on a person who operates an autonomous vehicle.

Definitions: RCW's Needing Update

<u>RCW</u>	<u>Title</u>	<u>RCW</u>	<u>Title</u>
46.04.370.	Operator or driver	46.52.030.	Accident reports
46.04.405.	Person	46.52.035.	Accident reports--
46.04.670.	Vehicle		Suspension of license or
46.16A.130.	Notice of liability		permit for failure to make
	insurance requirement		report
46.16A.500.	Liability of operator,	46.61.022.	Failure to obey officer--
	owner, lessee for violations		Penalty
46.29.070.	Department to determine	46.61.620.	Opening and closing
	amount of security		vehicle doors
	required--Notices	47.04.010.	Definitions
		81.70.020.	Definitions

Definitions

What definitions need to be updated in the RCW? What terms need to be added?

- Person
- Operator
- Minimal Risk Conditions
- Autonomous Vehicles
- Autonomous Technology
- Manufacturer

Comparison: "Person"

RCW 46.04.405: Person "Person" includes every natural person, firm, co-partnership, corporation, association, or organization.

Utah Proposed Legislation: "Person" means every natural person, firm, co-partnership, association, or corporation a natural person, corporation, business trust, estate, trust, partnership, limited liability company, association, joint venture, governmental agency, public corporation, or any other legal or commercial entity.

Comparison: “Operator”

RCW 46.04.370: Operator or driver: "Operator or driver" means every person who drives or is in actual physical control of a vehicle.

Georgia S.B. 219: “Operator” means any person who drives or is in actual physical control of a motor vehicle or who causes a fully autonomous vehicle to move or travel with the automated driving system engaged.

Texas S.B. 2205: The owner of the automated driving system is considered the operator of the automated motor vehicle solely for the purpose of assessing compliance with applicable traffic or motor vehicle laws, regardless of whether the person is physically present in the vehicle while the vehicle is operating.

Model Legislation Definitions

Georgia Senate Bill 219 Examples

(5.1) '**Automated driving system**' means the hardware and software that are collectively capable of performing the entire dynamic driving task on a sustained basis, regardless of whether it is limited to a specific operational design domain.

(15.2) '**Dynamic driving task**' means all of the real-time operational and tactical functions required to operate a vehicle in on-road traffic, excluding the strategic functions such as trip scheduling and selection of destinations and waypoints.

(17.2) '**Fully autonomous vehicle**' means a motor vehicle equipped with an automated driving system that has the capability to perform all aspects of the dynamic driving task without a human driver within a limited or unlimited operational design domain and will not at any time request that a driver assume any portion of the dynamic driving task when the automated driving system is operating within its operational design domain.

Model Legislation Definitions

Texas S.B. 2205

"**Automated driving system**" means hardware and software that, when installed on a motor vehicle and engaged, are collectively capable of performing, without any intervention or supervision by a human operator: (a) all aspects of the entire dynamic driving task for the vehicle on a sustained basis; and (b) any fallback maneuvers necessary to respond to a failure of the system.

"**Automated motor vehicle**" means a motor vehicle on which an automated driving system is installed.

"**Entire dynamic driving task**" means the operational and tactical aspects of operating a vehicle. The term (A) includes (i) operational aspects, including steering, braking, accelerating, and monitoring the vehicle and the roadway; and (ii) tactical aspects, including responding to events, determining when to change lanes, turning, using signals, and other related actions; and (B) does not include strategic aspects, including determining destinations or waypoints.

Model Legislation Definitions

Nevada A.B. 511

'Autonomous Vehicles' means a motor vehicle that uses artificial intelligence, sensors and global positioning system coordinates to drive itself without the active intervention of a human operator.

'Artificial intelligence' means the use of computers and related equipment to enable a machine to duplicate or mimic the behavior of human beings.

'Sensors' includes, without limitation, cameras, lasers and radar.

Examining Our Subcommittee Goals



What is Happening Around the Country?

State	Licensing	Liability	Safety	Infrastructure Systems	System Technology and Data Security
CA	X		X	X	X
FL	X	X	X	X	X
IN	X				
MI	X	X	X		X
ND					
NV	X	X	X	X	
TX	X		X		X
UT			X		
WI				X	

Licensing Legislation and Questions

What procedures do those testing and driving A/Vs have to comply with prior to use?



Licensing Legislation Recommendations

1. **California Vehicle Code (CVC) Section 38750** requires the DMV to adopt regulations governing both testing and public use of autonomous vehicles on California roadways. The DMV has three permit options. A manufacturer can apply for; a testing permit, which requires a driver, a driverless testing permit, a deployment (public use) permit.
2. **Florida HB 7027** Permits operation of autonomous vehicles on public roads by individuals with a driver license...eliminates requirement that the vehicle operation is being done for testing purposes.
3. **Michigan Compiled Laws 257.606(b)** “A local unit of government shall not impose a local fee, registration, franchise, or regulation upon an on-demand automated motor vehicle network.”
4. **Texas S.B. No. 2205** The owner of the automated driving system is considered operator of the automated vehicle, regardless of whether the person is physically present in the vehicle while the vehicle is operating. The automated driving system is considered to be licensed to operate the vehicle. A licensed human operator is not required to operate a motor vehicle if an automated driving system installed on the vehicle is engaged.

Infrastructure Legislation and Questions

How does infrastructure need to change in order to accommodate A/Vs on the road?



Infrastructure Legislation Recommendations

1. **Florida's §339.64** DOT “shall coordinate with federal regional, and local partners, as well as industry representatives, to consider infrastructure and technological improvements necessary to accommodate advances in vehicle technology, such as autonomous technology and other developments, in Strategic Intermodal System facilities...The Strategic Intermodal System Plan shall include the following: A needs assessment that must include, but is not limited to, consideration of infrastructure and technological improvements necessary to accommodate advances in vehicle technology, such as autonomous technology and other developments.”
2. **California SB 1 (2017)** Encourages the California DOT and cities and counties to, when possible, cost-effective and feasible, use funds under the Road Maintenance and Rehabilitation Program to use advanced technologies and communications systems in transportation infrastructure that recognize and accommodate advanced automotive technologies that may include . . . provision of infrastructure-to-vehicle communications for transitional or fully autonomous vehicle systems.

Liability Legislation and Questions

Who is Liable for Accidents and Traffic Violations?



Liability Legislation Recommendations

1. **Fla. Stat. §316.86(2):** Limits the original manufacturer's liability if the manufacturer did not design the vehicle as autonomous. "The original manufacturer of a vehicle converted by a third party into an autonomous vehicle" is not liable in an action against the manufacturer alleging a "defect caused by the conversion of the vehicle, or by equipment installed by the converter. The provision excludes an manufacturer who designed the vehicle autonomous.
1. **Michigan Compiled Laws 257.665b(4):** "When engaged, an automated driving system or any remote or expert-controlled assist activity shall be considered the driver or operator of the vehicle for purposes of determining conformance to any applicable traffic or motor vehicle laws and shall be deemed to satisfy electronically all physical acts required by a driver or operator of the vehicle."

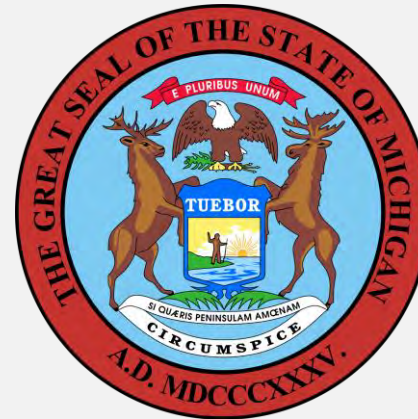
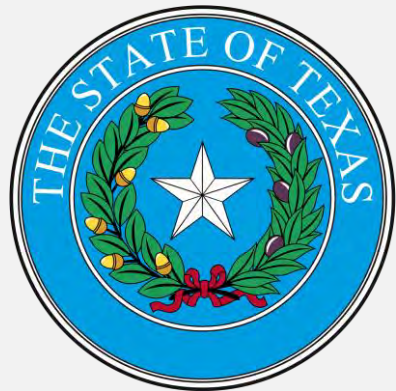
Liability Legislation Recommendations Cont.

3. Nevada SB 313 Sec. 2.5: Before a person or entity begins testing an autonomous vehicle on a highway within this State, the person or entity must: 1. Submit to the Department proof of insurance or self-insurance acceptable to the Department in the amount of \$5,000,000; or 2. Make a cash deposit or post and maintain a surety bond or other acceptable form of security with the Department in the amount of \$5,000,000.

4. Texas S.B. 2205: A/V may not operate on a highway in this state with the automated driving system engaged unless the vehicle is covered by motor vehicle liability coverage, or self-insurance in an amount equal to the amount of coverage that is required under the laws of Texas.

Technology and Data Security Legislation & Questions

Who owns the driving data and who can they share it with? How should we prepare for hacking?



Technology and Data Security Recommendations

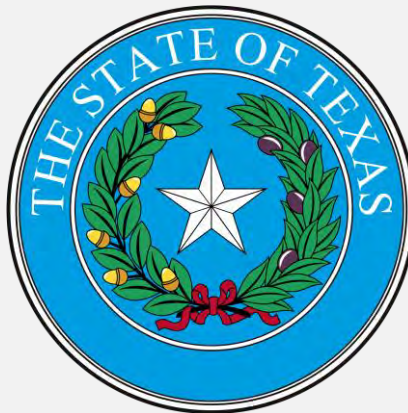
Recording Device in Motor Vehicles; RCW 46.35: Protects consumer driving data from being shared or sold without consumer's consent.

Texas S.B. No. 2205: AV must be equipped with a recording device, installed by the manufacturer of the automated motor vehicle or automated driving system.

Mass., Pending Legislation: Dept. of Transportation to issue regulations requiring data to be captured & stored, including real time distance travelled and number of passengers. Data should be stored for up to 18 months. Regulations should include protections for system security and prevent data tampering.

Safety

How should we approach traffic safety, law enforcement, incident management, and synchronization with other safety priorities?



Safety Recommendations

1. **Florida HB 7027** Requires autonomous vehicles meet federal applicable safety standards, and **HB 7061** defines autonomous technology and driver-assistive truck platooning technology, requiring a study on the use and safe operation of driver-assistive truck platooning technology.
2. **Michigan Compiled Laws 257.665b** Requires to following in order to self certify:
 - Automatic crash notification technology;
 - A data recording system that has the capacity to record the automated driving system status and other vehicle attributes including, but not limited to, speed, direction, and location during a specified time period before a crash as determined by the motor vehicle manufacturer;
 - That the participating fleet complies with all applicable state and federal laws.
3. **Nevada SB 313** Requires prior to testing:
 - Visual indicator inside indicating when autonomous technology is operating;
 - Equipped with means to alert human operator to take control of the AV when failure is detected;
 - Capable of complying with all applicable motor vehicle and traffic laws of the State.

Final Recommendations



Final Recommendations

1. Preempt Local Regulation: prevent unnecessary roadblocks to deployment of A/Vs.
2. Update Definitions: revise the RCW to accommodate new technologies.
3. Self Certification: promote innovation & freedom to develop new technologies.
4. Enhanced Infrastructure: encourage local, state, and federal improvements in road systems and technologies to support A/Vs.
5. Control Liability: impose liability on A/V systems and manufacturers while autonomous systems are in operation.
6. Update current data security laws: “lead the pack” in securing driver and user data.

Questions?

