



**Technology Law and Public Policy Clinic**  
Professor William Covington

SCHOOL OF LAW

UNIVERSITY of WASHINGTON



**SHB 2970**

AV Executive  
Working Group

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*Simone A. Montez, M.Ed.*  
Master of Jurisprudence  
Candidate, 2018



*What is an autonomous vehicle?*  
It's a vehicle capable of sensing its environment and navigating without human input.



The *autonomous technology* includes radar, laser, GPS, computer vision, advanced control systems, and interpret sensory information to identify appropriately navigation paths.

The image shows the interior of a vehicle from the driver's perspective. The steering wheel is on the left, featuring a red and white logo. The dashboard is equipped with a central infotainment screen, several analog gauges, and various control buttons. A yellow emergency stop button is visible on the dashboard. The view through the windshield shows a paved road curving to the right, bordered by dry grass and trees under a clear sky. A semi-transparent grey bar with white text is overlaid across the middle of the image.

To bring AI-enabled autonomous driving



## Level 4: High Automation

L4 ACV are able to detect if there is a system failure. ACV's can operate on their own devices without any human intervention, but the ability for the operator to take control of the truck remains.

# PACCAR

242 Acre Technical Center in Mount Vernon  
Patrick Dean, Chief Engineer

Paccar Innovation Center  
26,000 sq ft in Sunnyvale, CA



Florida DOT | Sun Trax

# PLATOONING

Combines technologies to improve fuel efficiency and safety.

- ❑ Radar and Lidar (Light detection and ranging) measures the distance to a target by illuminating the target with pulsed laser light and measuring the reflected pulses with a sensor.
- ❑ V2V (Vehicle to Vehicle Communication) is the wireless transmission of data between motor **vehicles**.

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## Transfer Hub and Teleoperation



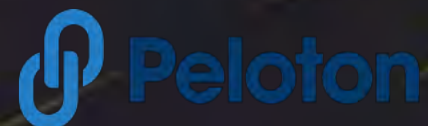
Tractor 14-18 ft. | Longest length of a trailer: 53 ft. | Overall 75 ft.  
Truck weight with trailer: 80,000 lbs. | Maximum weight 105,500 lbs.

17 states allow platooning covering 45,000 miles



50 to 60 ft. following distance

Highway  
Infrastructure



Connective technology that allows for breaking and acceleration.

# Operated and Controlled over the Cloud

- ✓ Battery level check
- ✓ What freight is loaded
- ✓ It's location; and
- ✓ Requirements of services

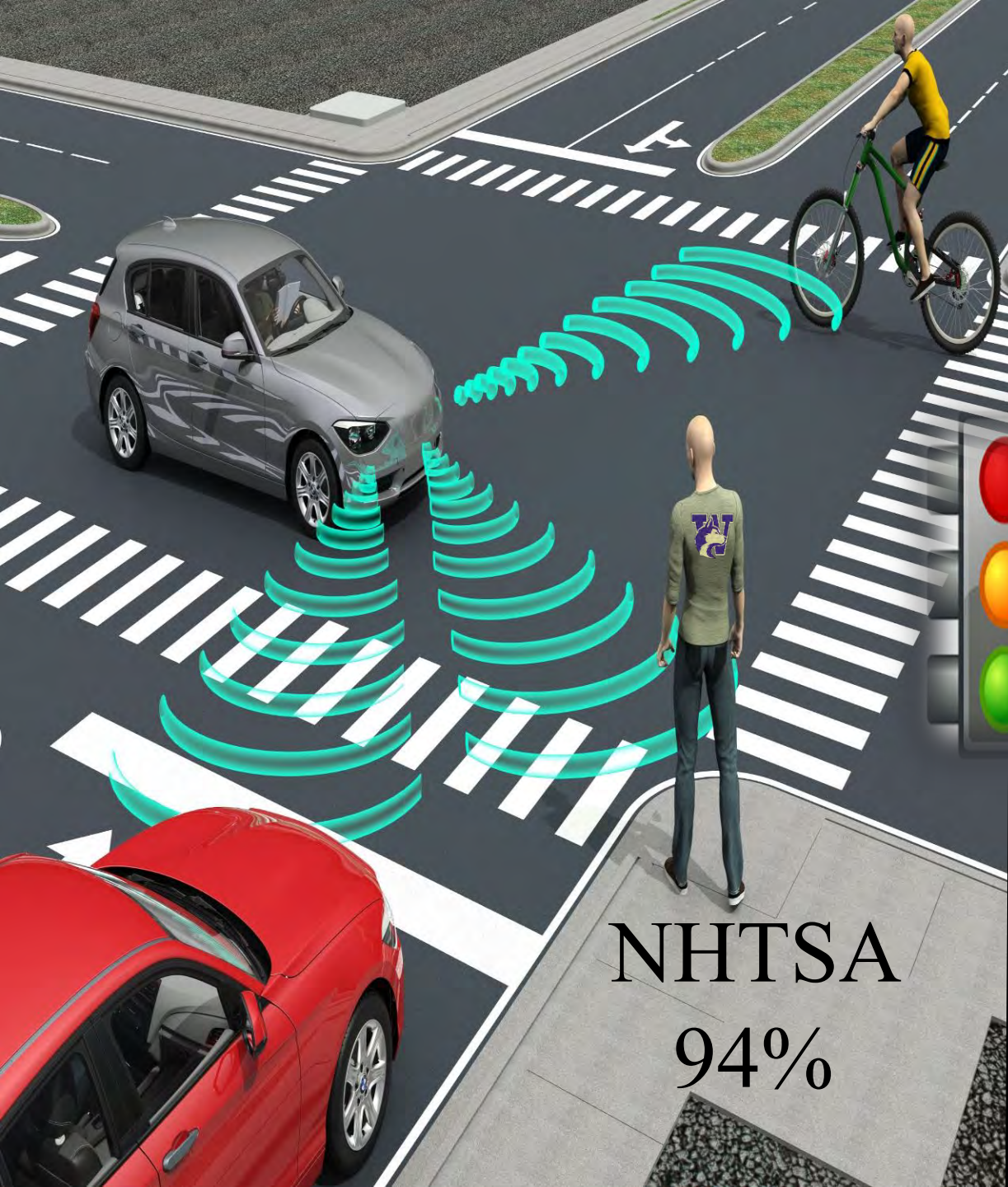
**No Cab or Manual Controls**



## Logistics

- ✓ Pull 32 tonnes | 70,547.924 pounds
- ✓ Self driven electric truck
- ✓ Trailers or load carriers
- ✓ Short and repetitive trips
- ✓ Staging and Storage Areas

*Volvo's Vera* will operate with “zero exhaust emissions” and low noise levels.



NHTSA  
94%



City  
Infrastructure

**Dock to Dock: service streets to distribution centers. New transport systems.**



WELCOME  
TO  
**WASHINGTON**  
THE EVERGREEN STATE

Regulatory Framework

Safety



FMCSA is reconsidering its previous stance that a driver is required behind the wheel of a commercial vehicle at all times.



**F M C S A**  
*Federal Motor Carrier Safety Administration*

Is currently seeking information from the public on how ADS-equipped trucks could interact with the following existing regulations:

- ✓ Inspection, repair and maintenance
- ✓ Roadside and Annual Inspections
- ✓ Distracted driving and driver monitoring
- ✓ Medical Qualifications | Hours-of-Service
- ✓ CDL Endorsements | Data sharing
- ✓ The Compliance Program

## INSURANCE REQUIREMENTS

\$5,000,000 Limit



ALL RISK PERIL

Motor Carriers | Manufactures | Third-Party Vendors (Retro Fitters, Maintenance, Compliance)

## How data will be utilized? | What needs to be addressed?



- Implement a formal IS governance approach
- Detect insider threat
- Update software and systems

# Who can apply for Testing?

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*Authorized commercial motor carriers* (for hire and private) cargo, passengers, household goods and solid waste collection companies.

*Authorized motor carriers* operated by the state, military and federal government.

*Authorized manufactures* of autonomous commercial vehicles.

*Authorized third-party vendors* who are licensed to perform maintenance, installation and compliance services.



**Step One:** Apply for operating authority:

- ✓ Business Information
- ✓ USDOT #
- ✓ Proof of Insurance

**Step Two:** Go through required testing, and meet or surpass ACV testing standards.

**Step Three:** Issuance of permission to test and or deployment.



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**Q A**  
**Answer**

*Professor William Covington*

*Simone A. Montez, M.Ed.*

Masters of Jurisprudence Candidate, '18