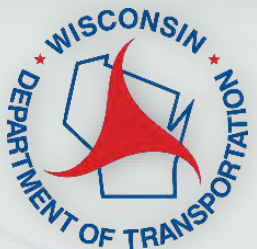


AV/CV Law Enforcement Concerns

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Wisconsin State Patrol

Technical Reconstruction Unit

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Weigh In Motion

- In-roadway sensors
- Weighs equipped CMVs while traveling
 - Allows them to bypass SWEFs if in compliance
- Platooning
 - If too close (<200 ft) will be seen as one vehicle – too many axles



Weigh In Motion Continued

- Fixes
 - Update software/hardware
 - Funding
 - Disengage platooning
 - Advanced warning signs



CMV Operator Considerations

- Hours of Service

- Currently can drive for 11 of 14 hours if coming off of a 10 hour break
- How will second and subsequent driver hours be recorded
 - Will driver be allowed to be in sleeper berth
 - Still in On Duty status if vehicle in operation

- Endorsement

- Special endorsement for platooning
- Special endorsement for AV?



Additional CMV Considerations

- How will platooning vehicles be distinguished
 - *Visibly on exterior of vehicle*
 - Most states testing are not addressing this yet
 - *Electronically while in transport*



General AV Considerations

Not Applicable for Level 5 AV

Current equipment barriers

- Mirrors
- Steering wheel
- Speedometer
- Windshield wipers

Operator requirements

NHTSA is currently working to remove these requirements from the FMVSS



Rules of the Road

Pertaining to Operator

- Inattentive driving
 - Texting while driving
- Impaired driving
- Cell phone in construction zone
- Following too close

Data Download Costs

- 3 HVEDR - \$2,500/Unit/Year for download equipment.
 - 35 Operators in state, 36 hours of training (\$500/person for training), 4 hours a year of refresher training (approx. 45 downloads/year)
- CDR –\$18,500 for deluxe kit
 - WSP currently has five deluxe kits and two basic kits (\$3,650) to be used throughout the entire state
 - Additional \$1,050/year for licenses plus up to \$5,000 for cables and updates
 - 242 EDR downloads in automobiles and heavy trucks in 2017 by the WSP
- Infotainment System - \$6,000 for kit and initial training
 - Additional \$1500 per year for license renewal



Data

- Who does data belong to
 - Who can give consent to access the data
- How to get data not stored in EDR
 - Additional hardware and software will need to be purchased
- Impractical to download in all crashes to determine if driver or AV or human operator was in control



Determining Fault

- How will fault be determined in property damage crashes
- If unable to get consent and no probable cause for a warrant, can data be accessed
- How will companies be held accountable when AV is at fault
- Liability if AV system advises occupant to take control and doesn't



Hacking Considerations

- Owner overriding rules of the road
- Unknown subject



Manufacturer Product Liability

- If software is unable to follow laws/doesn't work and malfunctions consistently how do they get removed from the road?



AV/CV Testing

- NHTSA recommendation – States required to test vehicles
- Who will be tasked
- Where will funding to complete testing come from
- Contractor to complete testing and report to state



Safety of AV Public Transportation

- Emergency alert system connecting directly to law enforcement dispatch center
- In-vehicle camera systems to record events
- Account/profile to gain access to public transportation



Basic Maintenance

- How to ensure systems are functioning correctly
 - Radar systems
 - Basic software and hardware
 - Can't check visually (tire tread depth/headlamps)

The background features a light gray gradient with several overlapping, semi-transparent wavy lines in shades of blue and gray. A dashed orange line and a grid pattern are also visible, adding to the abstract design.

Questions?