SUBCOMMITTEE ON LAW ENFORCEMENT AND CRASH REPORTING

Considerations for Law Enforcement and Crash Reporting

Goals and Values
- Ensure the safety of all road users, including pedestrians, bicyclists, and motorcyclists
- Ensure safety for law enforcement officers and first responders
- Promote law enforcement and first responder understanding of legal, technical, and administrative requirements/limitations of automated technology
- Promote social equity

Topics

Reporting Requirements
- Reporting number of disengagements and miles traveled
- Reporting system reliability/errors

Safety Requirements
- Internal safety systems (e.g., OnStar)

Traffic Laws and Driver Responsibilities
- Ensuring that automated vehicles can obey laws across various jurisdictions
- Establishing safe following distances
- Enforcing automated ride-hailing fleets use of pick-up and drop-off zones
- Roles and responsibilities of various users of automated vehicles
- Minimum age requirements for various users of automated vehicles
- Other driver responsibilities (e.g., ensuring passengers wear seatbelts)
- Impaired driving
- Distracted driving

Law Enforcement and First Responder Engagement
- Vehicle response to an automated incident or direction from law enforcement (e.g., alerting emergency responders, displaying insurance and registration information, etc.), both with and without a human in the vehicle
- Clear direction to law enforcement on how to interact with automated vehicles
- Autonomous mode identification and understanding of how to engage and disengage autonomous mode during or after an incident
- Ability of law enforcement to override vehicles
• First responder safety
• ‘At fault’ assignment

Crash and Incident Reporting
• Event data recorders to record information shortly before and after an incident
• Vehicle data recording duration (i.e., how much should be recorded)
• What data or events should be recorded
• What data or events inside the vehicle should be recorded? (e.g. in a ride-hailing fleet vehicle)
• Consistency in format of vehicle data
• Retention and access to incident or vehicle data
• Retention and access to app data for automated ride-hailing services
• Distinction between public and private data, e.g. intellectual property

Questions for Law Enforcement and Crash Reporting

Testing and Reporting Requirements
• Should manufacturers be required to provide clear direction to law enforcement and first responders before testing?
  o Several states have established or are considering establishing mandatory law enforcement interaction plans
• For testing, should test users (employees, contractors, etc.) be required to pass a background check? (6.2.1)
  o If so who should conduct the background check?
  o What are disqualifying criteria? (e.g., a criminal record or a driving history that includes DUI, reckless driving, etc.) (6.2.2)
• Should test users be held responsible for violating existing traffic laws? (6.4.3)
• Should manufacturers be required to report the number of disengagements and miles traveled?
  o California requires that manufacturers also provide an explanation for why the disengagement occurred.
• Should manufacturers be required to report system error or reliability issues that do not result in a disengagement or incident?

Safety Requirements
• Should automated vehicles be subject to additional safety requirements beyond those that apply to all vehicles?
• Should automated vehicles include internal safety systems such as OnStar? Should automated ride-hailing fleet vehicles?
• What data or events should be recorded inside the vehicle? Should this differ between privately owned vehicles, ride-hailing fleet vehicles, and public transit vehicles?
Adherence to Traffic Laws
- Should manufacturers be required to ensure automated vehicles are aware of and able to comply with all Oregon traffic laws?
- Should jurisdictions wait to modify current traffic laws specifically to accommodate SAE Level 5 vehicles until they are further along in development? (6.11.2)
- Should safe following distance laws be different for automated vehicles?

Driver Responsibilities
- What are the roles and responsibilities of various users (drivers, passengers, fallback-ready drivers, remote dispatchers) and how will law enforcement distinguish between the various user categories?
- At what level of automation will distracted driving laws apply? (6.3.1)
- How will law enforcement determine if a person is driving distracted or if the vehicle is operating autonomously? (MOE 13)
- At what level of automation will laws against driving impaired apply?
- In a vehicle with no human driver, who is responsible for other driver responsibilities such as ensuring passengers wear seatbelts?
- What is the minimum age required to ride alone in an automated vehicle?

Law Enforcement and First Responder Engagement
- Should manufacturers be required to provide training programs to law enforcement and first responders on how to interact with automated vehicles? (6.7.1)
  - What information is necessary to ensure first responder safety? (e.g., firefighters needed additional training to be able to safely respond to electric vehicle fires.)
- How should automated vehicles respond to an incident or to law enforcement, both with and without human passengers in the vehicle?
  - Who should be responsible for alerting emergency responders of a crash or incident?
  - How will law enforcement access information about the insurance and registration for an automated vehicle after a crash or incident?
- Should automated vehicles be clearly identifiable, and if so, how?
  - AAMVA recommends requiring permanent labeling on the rear and sides of highly automated vehicles (6.10)
  - How will first responders discern a vehicle's level of automation in order to determine who to hold responsible for violations?
- How will first responders know a vehicle is in autonomous mode, both during and after an incident, and how will they be able to disengage it?
- Should law enforcement be able to override an automated vehicle that poses a danger, and if so how?

Crash and Incident Reporting
- Should manufacturers and other testing entities be required to report crashes and other incidents?
• AAMVA recommends requiring a summary of the manufacturer’s analysis of the incident (6.1.1)
• How could Oregon leverage existing crash reporting systems and structures for this purpose?

- What information should be required in a crash report?
  • AAMVA recommends adopting US DOT’s Model Minimum Uniform Crash Criteria, 5th edition, which include guidance for collecting information on automated vehicle crashes. (6.1.2)
  • California has a standard crash report form that manufacturers are required to complete in the event of a crash.

- Should automated vehicles be required to use event data recorders (i.e. “black boxes”) to record data shortly before and after a crash?
  • If so, how much time before and after a crash should the vehicle record?
  • How should manufacturers make this data available to law enforcement? For example, AAMVA recommends that manufacturers should make this data retrievable in a standard, nonproprietary format for read access. (MOE 7)
  • Should manufacturers include time stamp and GPS location in this data? (MOE 8)

- What data would law enforcement need to access after a crash or incident?
  • What data should automated vehicles be required to retain and for how long?
  • Who can access that data and how? How can we ensure consistency and readability of the data?
  • For ride-hailing fleet vehicles, will law enforcement need access to data from the ride-hailing apps?
  • Does making certain data accessible to law enforcement raise consumer privacy or intellectual property concerns?