



American Association of
Motor Vehicle Administrators

Future Trends and Updates on Commercial Driver Licensing

UMassSafe CV-STAC Webinar

February 13, 2019



American Association of
Motor Vehicle Administrators

Agenda

CDL Test System Modernization

CSTIMS

AAMVA Guidelines for the Safe Testing of Highly Automated Vehicles

Joint mDL Working Group (Card Design Standard Committee & eID Working Group)



CDL Testing System Modernization Project

Developed by the AAMVA Test Maintenance Subcommittee

Objectives

- To revise, through a multi-year effort, the AAMVA CDL Testing System
- To produce a test model that is more in line with industry standards and training practices.
- To maintain high standards for **entry-level** CDL testing with regard to safety for the motoring public.

- **Safety** – The Committees are comprised of individuals from safety organizations.
- **Partnerships** – The proposed testing methods takes into consideration thoughts and ideas from jurisdictions, industry, law enforcement, program administrators and safety advocates.
- **AAMVA's Vision** – Safe Drivers, Safe Vehicles, Secure Identities, Saving Lives



Test Maintenance Subcommittee (TMS)

Chair: Larry Boivin (ME)

Vice Chair: TBD

Region 1: Jeffrey Oberdank (NH)

Region 2: Steve Ayers (VA)

Region 3: Rhonda Czarnecki (MO)

Region 4: John Barsness (ID)

International Driver Examiner Certification Board (IDEC)

Chair: Nancy Prescott (VT)

Vice Chair: Cynthia Delp (IA)

Region 1: Vacant

Region 2: Vacant

Region 3: Vacant

Region 4: Todd Holbrook (UT)

Core Project Goals

- **Safety** – Safety of drivers and the general public.
- **Basic Skills** – Ensuring drivers have entry-level skill sets for licensure to enter the industry.
- **Technology** – Create a test model that remains both valid and reliable in a fast changing technological environment.
- **Rigid Flexibility** – An **entry-level** testing system with rigid standards that is flexible enough to adapt to change.

- The purpose of the project is to modernize the 2005 Commercial Driver License (CDL) Testing System.
- The first phase of modernization will include changes to the:
 - Vehicle Inspection (VI) test,
 - Basic Control Skills (BCS) test, and
 - Driver's/Examiner's Manuals.
- Revisions will be based on Commercial Motor Vehicle (CMV) crash causation factors and advances in CMV equipment technologies.
- Revisions will be accomplished through partnerships with jurisdictions, Federal partners and industry stakeholders.

Background

- The current CDL testing system, (AAMVA) 2005 CDL Testing System, was conceptualized in the late 1980's and the first concept was produced and implemented by April 1, 1992.
- It has been *well over a decade* since the release of the current testing system.
- There have been significant changes in vehicle technologies and components.
- Braking, steering and suspension systems, coupled with other vehicle components, have advanced at a fast pace and continue to evolve.
- Hybrid electric CMVs, CMVs with 360 degree camera monitoring systems instead of traditional mirrors and other CMV technology systems are currently being manufactured.

Why Modernize?

The AAMVA TMS and IDEC continue to interact with Law Enforcement, Jurisdiction and Industry partners to understand their concerns with the current testing system:

- *Long waiting periods for scheduling tests,*
- *High failure rates on Vehicle Inspection,*
- *Driver shortage,*
- *Etc.*

The CDL Testing System needs to continually evolve to keep pace with technology, industry standards, training practices, jurisdictional needs and driver competencies.

We Need Your Input!

- Examining the framework of the test.
- Create a test method which keeps pace with new technology, industry standards, training practices, jurisdictional needs and driver competencies.
- Input from our industry partners is paramount to the success of this effort.
- What I will discuss and present to you today is the first step of many.
- Pilot and field tests will be conducted utilizing various classes and combinations of vehicles, operated by both novice and experienced drivers.

Test Validity and Reliability

- Test result data will be collected and analyzed by an independent third party. This is necessary to ensure that the proposed revisions are valid and reliable.
- What you see today may not be a final product as changes and modifications will be done during the Pilot and Field testing phases to ensure the tests accurately determine if the applicant has the basic skill set to operate a commercial motor vehicle.

Vehicle Inspection (VI):

Revise the Vehicle Inspection test to better align test procedures with current industry practices and CMVs being developed.

Revisions will examine the most common vehicle component failure crash causation factors, CVSA inspection processes and citation data.

Basic Control Skills (BCS):

The Basic Control Skills test modernization will measure the same entry-level skill set with a smaller layout, while maintaining a robust testing standard.

- Current BCS carousel 320' x 140'
- Proposed BCS carousel 260' x 40'



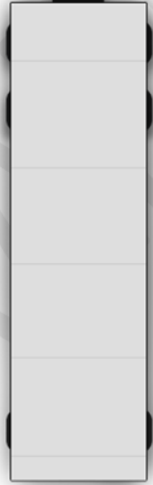
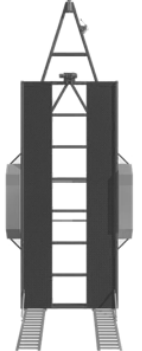


Draft Score Sheet (VI & BCS)

PRE-TRIP VEHICLE INSPECTION TEST		BASIC CONTROL SKILLS TEST																																																																																																																															
<p>In-Vehicle/Engine Start</p> <input type="checkbox"/> lighting indicators (L-R-4-H-ABS-DEF) <input type="checkbox"/> emergency equipment (F-E-T) <input type="checkbox"/> windshield & mirrors & monitoring devices <input type="checkbox"/> wipers & washers <input type="checkbox"/> heater & defroster <input type="checkbox"/> horn(s) <input type="checkbox"/> parking & trailer brake check <input type="checkbox"/> service brake check <input type="checkbox"/> *air (1-2-3-4) or *hydraulic brake check <p>Lights Operations Check</p> <input type="checkbox"/> front (L-R-4-HL-HB-C) <input type="checkbox"/> side (L-R-4-C) <input type="checkbox"/> rear (L-R-4-TL-BL-C) <p>Front of Vehicle/Engine Compartment</p> <input type="checkbox"/> lenses <input type="checkbox"/> fluid levels (O-C-PS-HF) <input type="checkbox"/> fluid & air leaks <input type="checkbox"/> battery / electrical systems <input type="checkbox"/> steering systems <p>Driver's Side Steering Axle</p> <input type="checkbox"/> tires (I-C-D) <input type="checkbox"/> rims <input type="checkbox"/> lug nuts <input type="checkbox"/> springs / air bags / shocks <input type="checkbox"/> brake lines or hoses / leaks <input type="checkbox"/> brake contaminates <p>Side of Vehicle</p> <input type="checkbox"/> lenses & reflectors <input type="checkbox"/> mirror(s) or monitoring devices <input type="checkbox"/> fuel tank(s) <input type="checkbox"/> frame(s)	<p>Combination Vehicles Only</p> <input type="checkbox"/> air & electric lines / connectors <input type="checkbox"/> fifth wheel skid plate or pintle hook or tow hitch <input type="checkbox"/> kingpin / apron / gap or drawbar ring & tongue or coupler & tongue <input type="checkbox"/> locking & safety devices <p>Trailer Only</p> <input type="checkbox"/> landing gear & clearance <input type="checkbox"/> reflective tape <p>Rear of Vehicle or Trailer</p> <input type="checkbox"/> lenses & reflectors <p>Passenger Only</p> <input type="checkbox"/> passenger entry & lift <input type="checkbox"/> emergency exits <input type="checkbox"/> passenger seating <input type="checkbox"/> passenger mirrors & monitoring devices <p>School Bus Only</p> <input type="checkbox"/> student lights (front & back) <input type="checkbox"/> stop arm(s) & safety arm <input type="checkbox"/> first aid & body fluid kits <p>TOTAL VI SCORE <input type="text"/> (total missed)</p> <p><input type="checkbox"/> Automatic Failure <input type="checkbox"/> Unsafe Act <input type="checkbox"/> Failure to Follow Instructions</p> <p>* Automatic failure if not performed correctly</p> <p>REFER TO APPENDIX A FOR PASSING SCORES</p>	<p>Step 1 – Forward Stop</p> <table border="1"> <tr><td>Back-Up</td><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td rowspan="3">Total</td></tr> <tr><td>Encroachments</td><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td><td>12</td><td>14</td></tr> <tr><td>Forward Stop Box</td><td>0</td><td>5</td><td></td><td></td><td></td><td></td><td></td></tr> 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Position	0	13							Back-Up	5	13						Total	Encroachments	2	4	6	8	10	12	14	Clearance	0	5						Final Position	0	13							Pull-ups	0	0	1	2	3	4	5	Total	Encroachments	2	4	6	8	10	12	14	Looks	0	0						Final Position	0	13						
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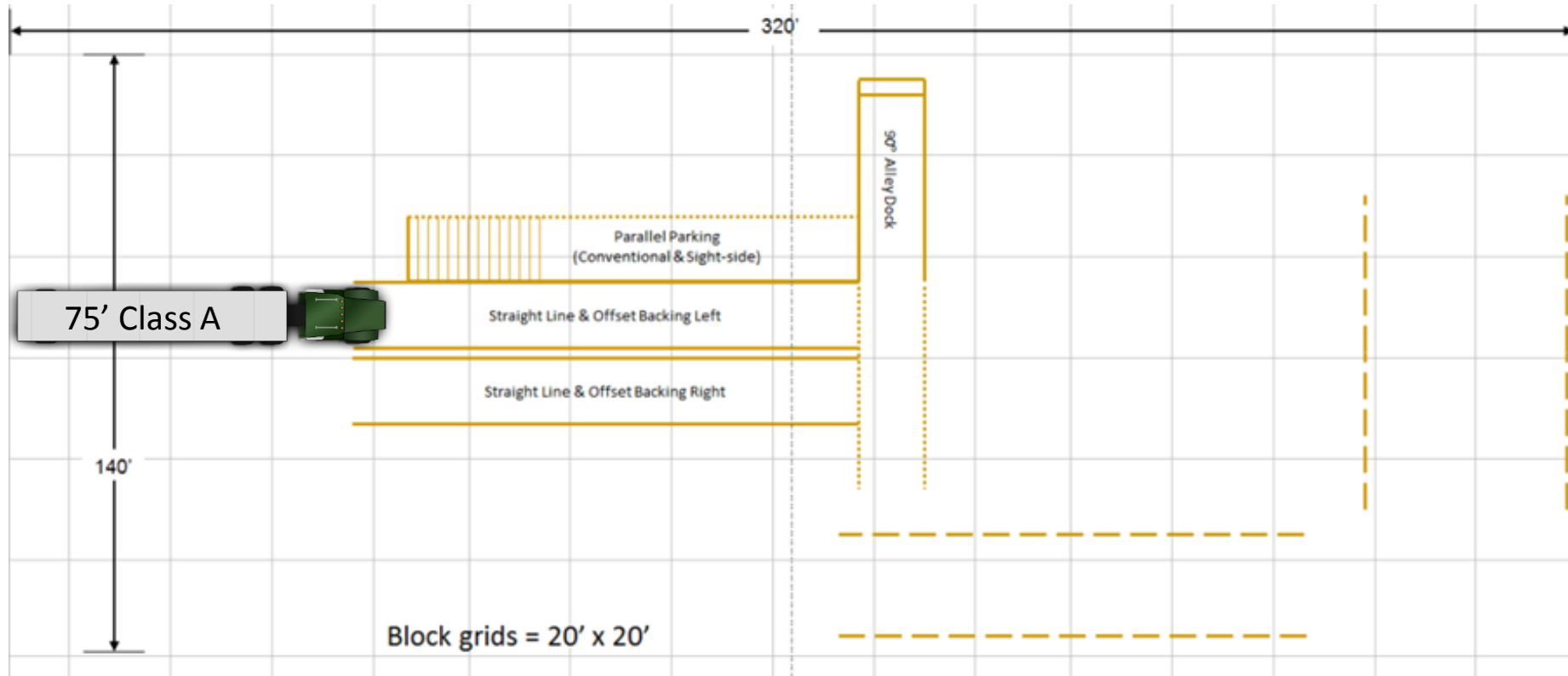
Draft Check List

Class A Checklist Tractor Semi-Trailer or Truck & Trailer or Bus & Trailer		
<p>In-Vehicle/Engine Start</p> <input type="checkbox"/> lighting indicators <input type="checkbox"/> emergency equipment <input type="checkbox"/> windshield & mirrors & monitoring devices <input type="checkbox"/> wipers & washers <input type="checkbox"/> heater & defroster <input type="checkbox"/> horn(s) <input type="checkbox"/> parking & trailer brake check <input type="checkbox"/> service brake check <input type="checkbox"/> *air or *hydraulic brake check	 	 
<p>Lights Operations Check</p> <input type="checkbox"/> front <input type="checkbox"/> side <input type="checkbox"/> rear		
<p>Front of Vehicle/Engine Compartment</p> <input type="checkbox"/> lenses <input type="checkbox"/> fluid levels <input type="checkbox"/> fluid & air leaks <input type="checkbox"/> battery / electrical systems <input type="checkbox"/> steering systems		
<p>Driver's Side Steering Axle</p> <input type="checkbox"/> tires <input type="checkbox"/> rims <input type="checkbox"/> lug nuts <input type="checkbox"/> springs / air bags / shocks <input type="checkbox"/> brake lines or hoses / leaks <input type="checkbox"/> brake contaminates		
<p>Side of Vehicle</p> <input type="checkbox"/> lenses & reflectors <input type="checkbox"/> mirror(s) or monitoring devices <input type="checkbox"/> fuel tank(s) <input type="checkbox"/> frame(s)		
<p>Combination Vehicles Only</p> <input type="checkbox"/> air & electric lines / connectors <input type="checkbox"/> fifth wheel skid plate or pintle hook or tow hitch <input type="checkbox"/> kingpin / apron / gap or drawbar ring & tongue or coupler & tongue <input type="checkbox"/> locking & safety devices		
<p>Trailer Only</p> <input type="checkbox"/> landing gear & clearance <input type="checkbox"/> reflective tape	<p>Passenger Only</p> <input type="checkbox"/> passenger entry & lift <input type="checkbox"/> emergency exits <input type="checkbox"/> passenger seating <input type="checkbox"/> passenger mirrors & monitoring devices	<p>School Bus Only</p> <input type="checkbox"/> student lights (front & back) <input type="checkbox"/> stop arm(s) & safety arm <input type="checkbox"/> first aid & body fluid kits
<p>Rear of Vehicle or Trailer</p> <input type="checkbox"/> lenses & reflectors		
<p>* Automatic failure if not performed correctly</p>		
<p>You may use this checklist for your CDL Vehicle Inspection test, but NO additional markings or writing may be placed on this list. You MUST name, point to or touch each safety critical item and explain WHAT you are inspecting for and WHY (rational) you are inspecting it.</p>		

Class B or Class C Checklist Passenger or School Bus		
<p>In-Vehicle/Engine Start</p> <input type="checkbox"/> lighting indicators <input type="checkbox"/> emergency equipment <input type="checkbox"/> windshield & mirrors & monitoring devices <input type="checkbox"/> wipers & washers <input type="checkbox"/> heater & defroster <input type="checkbox"/> horn(s) <input type="checkbox"/> parking & trailer brake check <input type="checkbox"/> service brake check <input type="checkbox"/> *air or *hydraulic brake check	 	
<p>Lights Operations Check</p> <input type="checkbox"/> front <input type="checkbox"/> side <input type="checkbox"/> rear		
<p>Front of Vehicle/Engine Compartment</p> <input type="checkbox"/> lenses <input type="checkbox"/> fluid levels <input type="checkbox"/> fluid & air leaks <input type="checkbox"/> battery / electrical systems <input type="checkbox"/> steering systems		
<p>Driver's Side Steering Axle</p> <input type="checkbox"/> tires <input type="checkbox"/> rims <input type="checkbox"/> lug nuts <input type="checkbox"/> springs / air bags / shocks <input type="checkbox"/> brake lines or hoses / leaks <input type="checkbox"/> brake contaminates		
<p>Side of Vehicle</p> <input type="checkbox"/> lenses & reflectors <input type="checkbox"/> mirror(s) or monitoring devices <input type="checkbox"/> fuel tank(s) <input type="checkbox"/> frame(s)		
<p>Rear of Vehicle or Trailer</p> <input type="checkbox"/> lenses & reflectors		
<p>Passenger Only</p> <input type="checkbox"/> passenger entry & lift <input type="checkbox"/> emergency exits <input type="checkbox"/> passenger seating <input type="checkbox"/> passenger mirrors & monitoring devices		
<p>School Bus Only</p> <input type="checkbox"/> student lights (front & back) <input type="checkbox"/> stop arm(s) & safety arm <input type="checkbox"/> first aid & body fluid kits		
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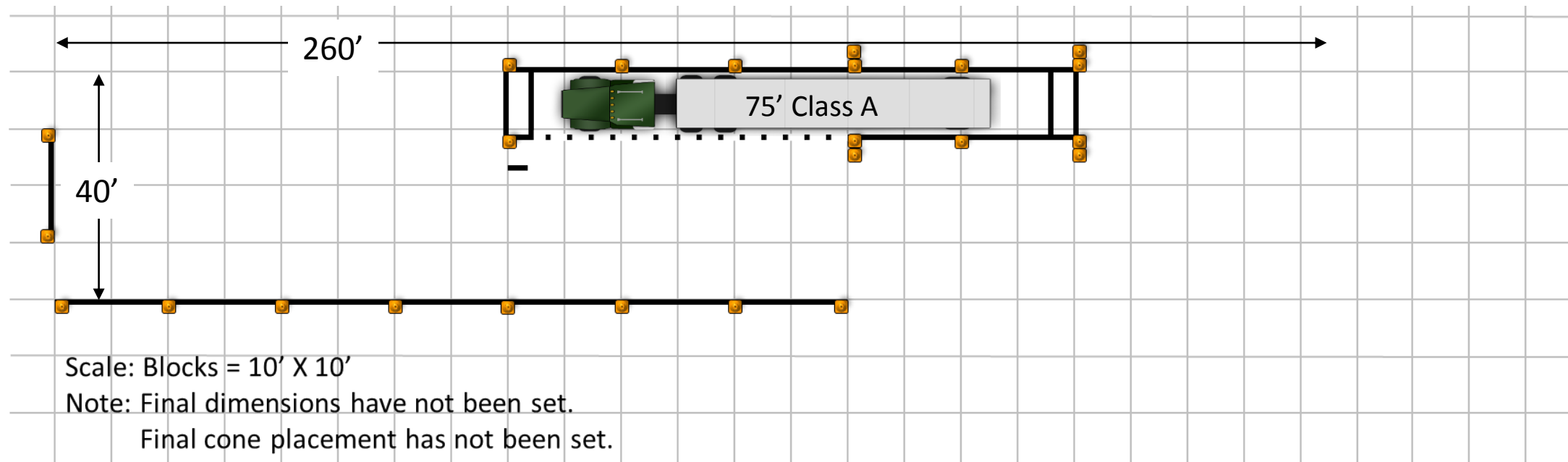
Basic Control Skills

Current BCS Carousel



Proposed Basic Control Skills

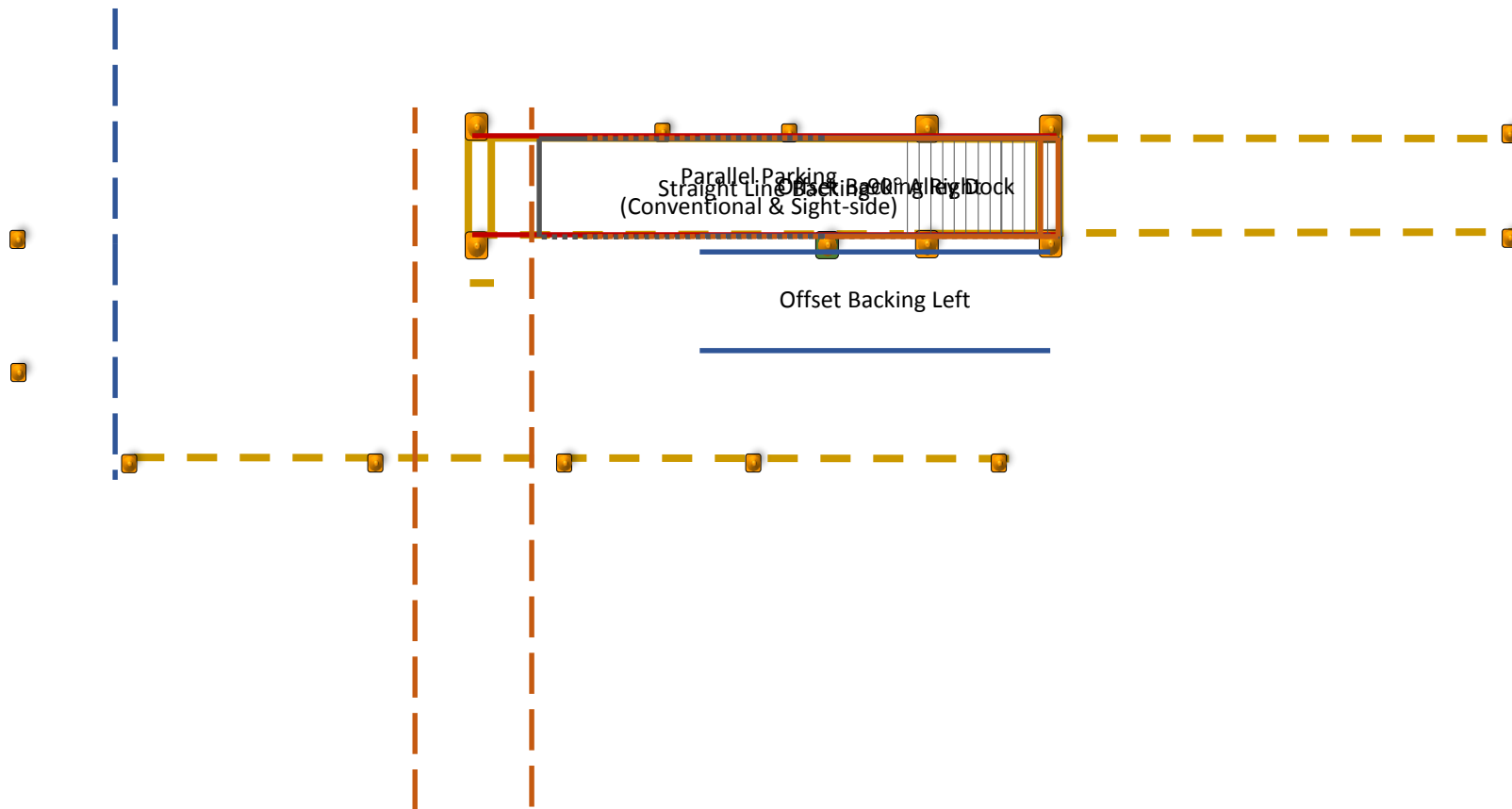
Proposed BCS – Forward Stop; Straight Line Backing; Forward Offset Tracking; Reverse Offset Tracking





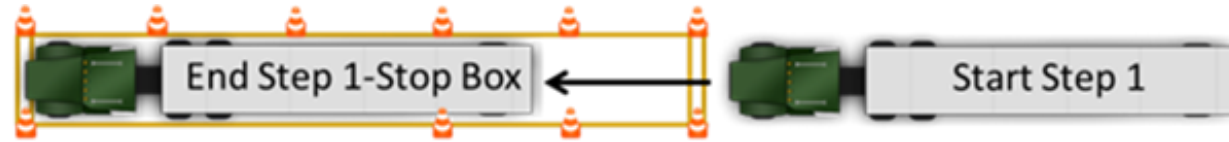
Comparison

Forward Stop Box, Straight Line Backing, Forward Tracking and Off-Set Reverse Tracking – Comparison of current BCS exercises



Proposed Basic Control Skills

Step 1 – Forward Stop

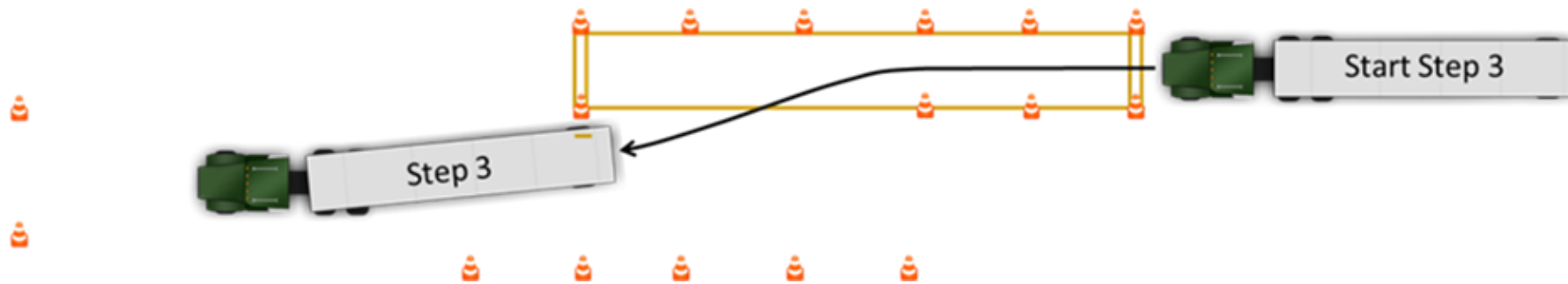


Step 2 – Straight Line Backing

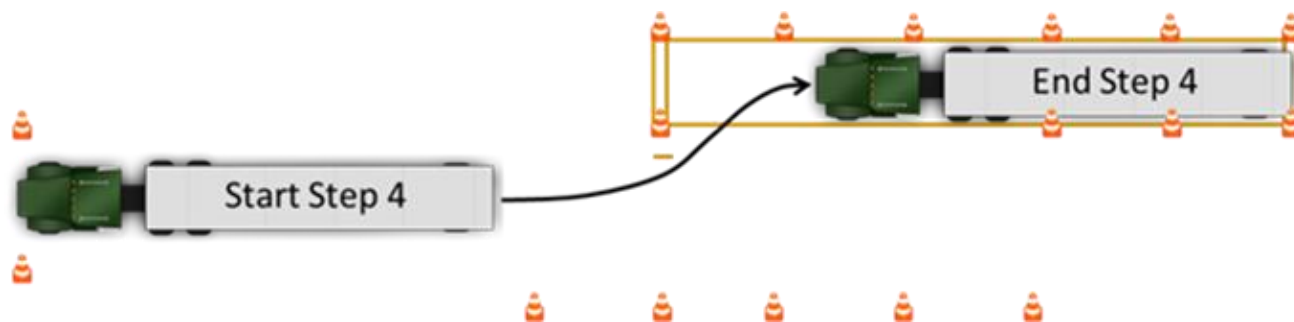


Proposed Basic Control Skills

Step 3 – Forward Offset Tracking



Step 4 – Reverse Offset Backing



Other Revisions

Road Test:

Will be reviewed and evaluated for possible modernization based on CMV crash causation factors and equipment technologies in the future.

Knowledge Test:

The Knowledge Test Item Pool will be modernized based on updates to the CDL Test System and equipment technologies in the future.

Driver's Manual: Will be updated as needed to be current.

Benefits of Modernization

- A more robust testing solution should offer standardization with flexibility with regard to changing roadways and technology.
- The system should facilitate enhanced examiner training and auditing methods to achieve safe drivers, safe vehicles and safe roadways to save lives.
- The system will result in efficiencies in test administration and backlogs.
- Enhance FMCSA's goal of attaining a zero loss of life.
- ***FMCSR rule change not anticipated.***



American Association of
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Contact

**For More Information Contact
Test Maintenance Subcommittee**

kmorton@aamva.org



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CSTIMS

CSTIMS

Commercial Skills Test Information Management System

aamva.org/cstims



Manage CDL Skills Testing for
Jurisdiction and Third-Party Examiners

HELPING JURISDICTIONS comply with the final permit rule

- Schedule CDL skills tests.
- Record results of tests.
- Transfer out of state tests.
- Manage CDL audits.

WEB-BASED SYSTEM

CDL

Commercial
Driver's
License

REDUCE FRAUD

**TABLET
INTEGRATION**
OPTIONS AVAILABLE





CSTIMS Overview

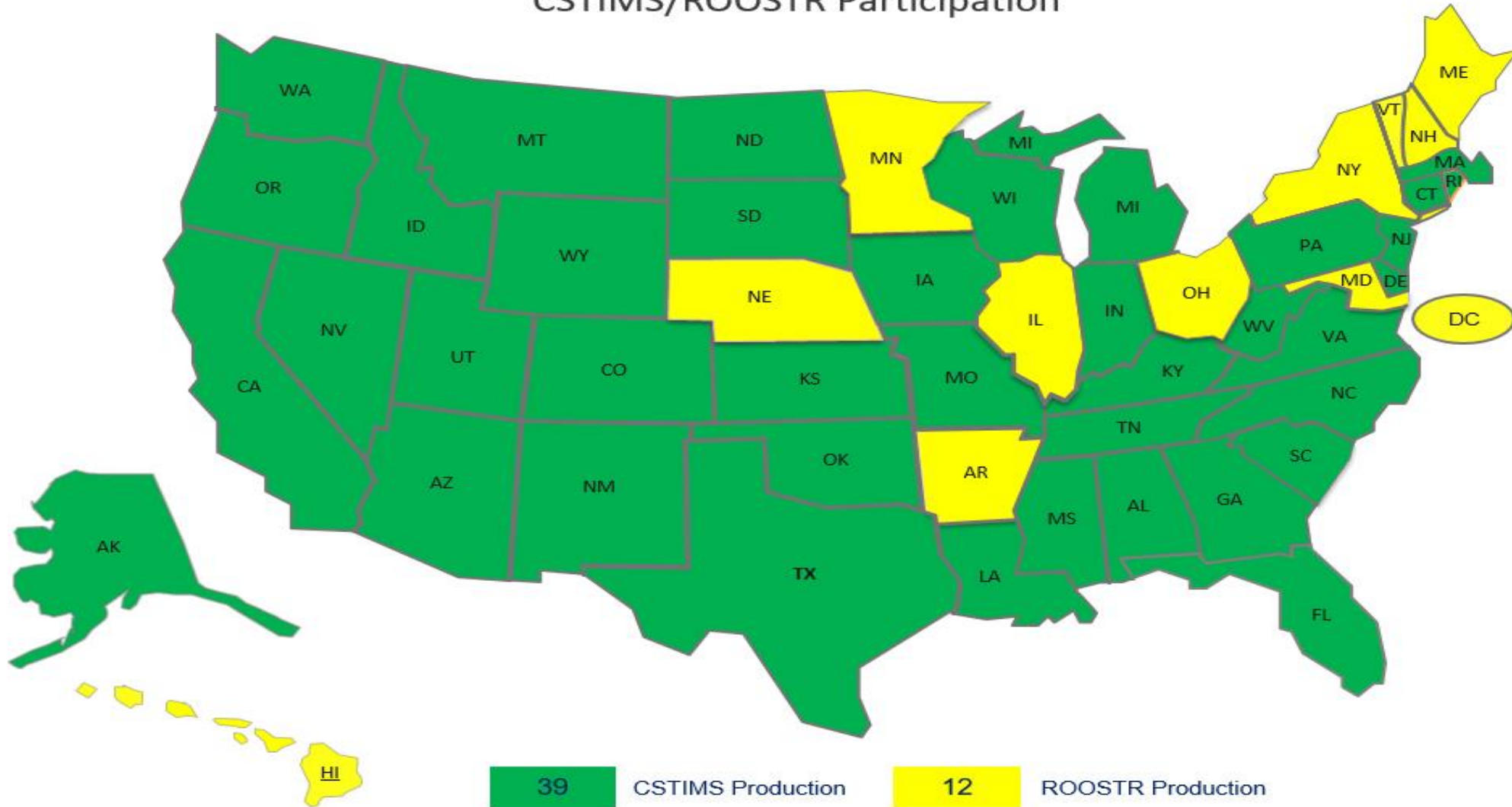
- CSTIMS is a web-based system for managing the skills test portion of the CDL licensing program.
- Funded by FMCSA; hosted and maintained by AAMVA
- Tracks/records information for CDL skills test organizations and examiners (state and 3rd party)
- Provides CDL skills tests **scheduling**, recording of **test results**, and **CDL audit** management
- Manages examiner **training** and **certification**

- Allows jurisdictions to define specific business rules
- Allows transfer of **out-of-state** test results
- System notifications increase jurisdiction oversight and help prevent fraud
- Helps jurisdictions comply with provisions of the **final permit rule**
- Road Test **Tablet** integration options available
- **Driver Licensing System** integration available



CSTIMS Participation

CSTIMS/ROOSTR Participation



ROOSTR (report out-of-state test results):

- A limited edition version of CSTIMS that allows states that have not implemented CSTIMS to comply with §383.79 of the new CLP regulation.
- The rule requires states that have issued CLPs to accept CDL skills test results from any other State and transmit test results in a secure, electronic manner.

ROOSTR (continued)

- Designed so that non-CSTIMS states could comply with the July 2015 deadline.
- Functionality **limited** to only these features:
 - Allows states to report out-of-state CDL test results to another licensing state
 - Allows states to look up out-of-state test results conducted in another state for their drivers



American Association of
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For More Information

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Jurisdictional Guidelines for the Safe Testing and Deployment of Highly Automated Vehicles

Developed by the AAMVA Autonomous Vehicles Working Group

The AVWG The Working Group established fall 2014

Consists of 18 jurisdictional members, 3 AAMVA staff

Three sub-groups focusing on issues impacting testing and deployed vehicles:

- Drivers: Education, Testing, Licensing
- Vehicles: Permits, Registration and Title
- Law Enforcement: Concerns & Challenges

Executive Summary

Chapter 1 Introduction

Chapter 2 Automated Vehicles Classifications, Terms and Technologies

Chapter 3 Administrative Considerations

Chapter 4 Vehicle Credentialing Considerations

Chapter 5 Driver Licensing Considerations

Chapter 6 Law Enforcement Considerations

Chapter 7 Next Steps

Appendix A Acronyms

Appendix B Summary of recommendations to Jurisdictions

Appendix C Summary of recommendations to Manufacturers

Appendix D – Working Group Roster



American Association of
Motor Vehicle Administrators

Chapter 1 - Introduction

Purpose:

Provides voluntary recommended guidelines regarding motor vehicle administration and law enforcement for the safe testing and deployment of HAVs.

Jurisdictions adopting the recommendation will facilitate consistency of regulations, without over regulating the industry while supporting innovation having the potential to reduce crashes, fatalities, injuries and property damage.

Guiding Principles:

- Facilitating a consistent and balanced oversight approach by motor vehicle administrators to avoid inconsistent regulatory practices;
- Supporting the research and development of technology which has the potential to improve traffic safety while providing mobility options for underserved populations;
- Supporting the safe testing and the deployment of HAVs; and
- Confirming the roles and responsibilities of jurisdictions and the federal government.

Out of Scope

Commercial motor vehicles, as defined by the Federal Motor Carrier Safety Regulations (FMCSRs) (390.5)	Cybersecurity
Training for MVA staff	Enabling infrastructure
Jurisdictional safety inspection programs and criteria	Economic considerations
Data privacy and security, including personal identifiable information (PII)	Environmental impacts

Some of these topics will be discussed in future versions of this report



Chapter 2 – Technology and Terms

- Describes the SAE, International 0-5 Vehicle Automation Classification System.
- Provides explanation of the SAE, International definitions.
- Defines other words and terms used throughout the report.

A comprehensive explanation of each topic addressed under Administration, Vehicle, Driver and Law Enforcement sections which includes:

- ✓ A discussion on the background of the issues
- ✓ Guideline for testing and/or deployed vehicles
- ✓ Benefits of implementing the guideline
- ✓ Challenges that jurisdictions may face

Chapter 3. Administrative Considerations

3.1 Administration Examples of Recommendations for Jurisdictions

3.1.1 Identify a lead agency to manage the HAV committee and its work.

3.1.2 Establish an HAV committee to address HAV testing and deployment.

3.1.3 The HAV committee should develop strategies for addressing testing and deployment of HAVs in their jurisdiction.

3.1.4 Examine their laws and regulations to allow the safe testing, deployment and operation of HAVs.

3.1.5 Jurisdictions which regulate the testing of HAVs are encouraged to take necessary steps to establish statutory authority and to utilize NHTSA's *Automated Driving Systems: A Vision for Safety 2.0* published in September 2017 to frame the regulations.



Provide Recommendations in each of these areas:

4.1 Application for Permit to test HAVs

4.2 Vehicle Registration

4.3 Title and Branding New and Aftermarket HAVs

4.4 License Plates

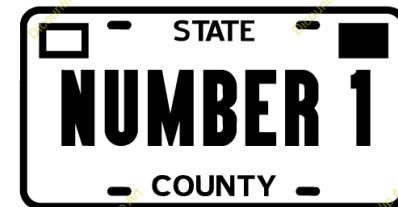
4.5 Manufacturer Certificates of Origin

4.6 Financial Responsibility

4.7 Federal Motor Vehicle Safety Standards

Examples of Recommendations in Chapter 4

- Establishing an application and permit process for HAV testing
- Place a notation on the registration credential or electronic record of vehicles
- Recognize the registration, title and plate issued by another titling jurisdiction for purposes of testing.



Examples of Recommendations in Chapter 4

- Record and maintain the testing vehicle's information in its vehicle record brand should indicate "*highly automated vehicle*".
- Brand vehicles not equipped with automated technologies by the OEM, but have aftermarket components as aftermarket-altered automated technologies.
- Jurisdictions should not require a special license plate for HAVs.
- Require all HAVs, available to the public, to conform to all applicable FMVSS or CMVSS, unless specifically exempted by the federal agency.
- Jurisdictions should also require manufacturers to certify they have not made any federally-required safety devices inoperative.



Provide Recommendations in each of these areas:

5.1 Driver and Passenger Roles Defined

5.2 Driver License Requirements for Testing by Manufacturers and Other Entities

5.3 Driver Training for Consumers for Deployed Vehicles

5.4 HAV Driver Training for Motor Vehicle Agency Examiners, Driver Education Programs and Private Instructors

5.5 Driver License Skills Testing with Automated Vehicle Technologies

5.6 Endorsements and Restrictions for Deployed Vehicles

Examples of Recommendations in Chapter 5

Vehicle Testing:



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- Require test HAVs be operated solely by employees, contractors, or other persons designated by the manufacturer of the HAV.
- Require test drivers to receive training and instruction related to, but not limited to, the capabilities and limitations of the vehicle.
- Require training to be documented and submitted to the jurisdiction's HAV lead agency.
- Support the safe testing without a human driver inside of the vehicle, by requiring a user designated by the manufacturer of the ADS, to be capable of assuming control of the vehicle's operations.

Examples of Recommendations in Chapter 5

- Provide training to driver license examiners on all vehicle technologies including levels 1 and 2 vehicles and the operation of HAVs.
- Require driver education curricula to contain information on HAVs and to provide hands-on training in the utilization of levels 1 and 2 vehicles and HAV technologies.
- New driver skills testing involving deployed vehicles (levels 1-3)
 - Allow the applicant to utilize safety critical technologies for off-road skills tests or parking maneuvers during the road test. These technologies, such as backup or other cameras should not be disengaged for off-road testing.
 - Jurisdictions should not allow the applicant to utilize convenience technologies, such as, the parking assist feature, for off-road skills tests or parking maneuvers during the road test. The applicant should be required to demonstrate the ability to park the vehicle.

For level 4 and 5 vehicles that can not be operated in manual mode Jurisdictions should:

- Take steps to ensure their motor vehicle laws allow for the operation of Level 4 and 5 vehicles without a driver.
- Not impose any other requirements; licensure, sobriety, clean driving history, etc., for non-drivers to utilize Level 4 and 5 vehicles.
- Review laws and regulations related to unsupervised children in motor vehicles and adopt appropriate laws and regulations to ensure safety.

Provide Recommendations in each of these areas:

- 6.1 Crash/Incident Reporting
- 6.2 Criminal Activity
- 6.3 Distracted Driving
- 6.4 Enforcement of Permit Conditions
- 6.5 Establishing Operational Responsibility and Law Enforcement Implications
- 6.6 First Responder Safety
- 6.7 Law Enforcement/First Responder Training
- 6.8 Vehicle Response to Emergency Vehicles, Manual Traffic Controls and Atypical Road Conditions
- 6.9 System Misuse and Abuse
- 6.10 Vehicle Identification
- 6.11 Adherence to Traffic Laws

Examples of Recommendations in Chapter 6

- Require HAV manufacturers to submit to them, crash related information and a summary of the manufacturer's analysis of the incident in order to expand the amount of HAV data and research.
- U.S. jurisdictions should adopt the MMUCC (5th Edition, August 2017) recommendation as soon as practicable.
- Jurisdictions that have HAV permitting requirements should require the designated test users (employees, contractors and other persons) to pass a background check, including, but not limited to, a driver history review and a criminal history check, prior to being authorized to operate a test HAV.
- Hold test users responsible for violations of existing traffic laws subject to existing legal processes.

Examples of Recommendations in Chapter 6

- Define what enforcement actions can be taken and who or what is responsible when there is no human onboard an automated test vehicle.
- For vehicles classified as Levels 4 or 5, which may be operated without a licensed driver and where the driverless vehicle performs the DDT independent of human input, the registered owner should be responsible for its safe operation.
- Work with manufacturer's consumer training programs to make the HAV training available to first responders at no cost to agencies.



These are just some examples of 16 recommendations for Jurisdictions.

There are also 23 recommendations for manufacturers which the working group will provide and discuss with the manufacturers.

Examples:

- Manufacturers should design HAVs to record vehicle behavior sensor data and the driver/vehicle interface. Law enforcement should be provided with access to this information as well as at least 30-seconds of pre-crash and post-crash data for completing a proper investigation.
- Manufacturers should make EDR information retrievable in a standard, non-proprietary format for ready access by those duly authorized.

- Manufacturers should ensure HAVs leave an electronic fingerprint that can allow tracing of input data to whoever initiated them.
- Manufacturers should ensure HAVs are permanently labeled, at a minimum, on the rear and sides of the vehicle for the safety of first responders.
- Manufacturers should ensure HAVs have safety systems or procedures which allow first responders to immobilize or otherwise disable the vehicle post-crash, to prevent movement or subsequent ignition of the vehicle for the safety of vehicle occupants and first responders.
- Manufacturers should make the information regarding HAVs and procedures available to the first responder community in the jurisdiction where the vehicle will be operated.

Over the next few years the Working Group is will:

- Attend conferences, seminars and other forums focused on the technology as well as public policy to advance and share their expertise.
- Provide technical assistance to jurisdictions – developing a plan
- Provide support to updating driver licensing testing standards and training driver license examiners.
- Work closely with industry and research stakeholders, state and federal government officials and national associations supporting transportation agencies
- Update this report periodically for the foreseeable future to address areas such as commercial vehicles, ride share ownership models, training MVA staff, as well as other topics





Conclusion

- Careful consideration must be given to support the implementation of the technology yet maintain (and hopefully) improve safe transportation.
- Many laws, policies and procedures will need to be reconsidered, amended and implemented over time.
- There is a great collaborative effort among state officials and the entities that support them.



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Mobile DL

Developed by the AAMVA Joint mDL Working Group (Card Design Standard Committee & eID Working Group)

- The joint working group (WG) which combines the Card Design Standard Committee and the e-ID working group remains focused on mobile DL. Recently they finished up mDL specific model legislation and procurement guidance for the benefit of the issuing jurisdictions.
- What is mDL?
 - A mobile driver's license (mDL) is a digital representation of the information contained in a physical DL, stored on or accessed with the help of a device (owned and controlled by the DL holder) such as a cell phone or tablet



- As you may be aware, AAMVA worked with the RDW, the DMV of the Netherlands, on an mDL operational proof of concept. As a result, many of our jurisdiction members were able to download an application and “test-drive” the operational concepts of what an mDL might look and feel like.
- A video showing the Phase I version of the collaboration was debuted at the AAMVA 2017 AIC in San Francisco and is one of the most viewed videos AAMVA has ever produced. It is on our YouTube site for anyone interested in seeing how the technology would work.

- A new development in the work happening in international standards setting collaboration is an mDL interoperability test exercise that was hosted by Japan in October 2018.
- The National Police Agency in Japan has taken the AAMVA/RDW work and built a proof of concept that shows the translation feature from Japanese to other languages and vice-versa. The interoperability exercise provided an opportunity for the solution providers to see how closely aligned they were to the emerging standards.



American Association of
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Joint mDL Working Group (Card Design Standard Committee & eID Working Group)

- Also of note is the collaboration happening with other MVAs around the globe – leveraging mutual interest in mDL. AAMVA is actively engaged in with the European Community through EReg and an EU backed electronic identity effort.
- AAMVA is also working with Austroads – the Australian counterpart to AAMVA. AAMVA and Iowa DOT were recently invited to attend an inaugural Digital ID conference in Canberra and there is a desire to convene a mini-summit in December bringing AAMVA, EReg and Austroads together in Melbourne.

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