

Pre-Meeting

Video Loop

<https://www.youtube.com/watch?v=EzDW2iO5V84>

Jason Fenske, mechanical engineer teaming with NHTSA to help consumers learn about cars and how they work



MARYLAND CONNECTED & AUTOMATED VEHICLES WORKING GROUP

August 10, 2022 -- In-Person Meeting

Welcome!



WORKING GROUP LEADERSHIP

Maryland CAV Working Group Co-Chairs

Chrissy Nizer
Administrator
MDOT MVA



Jim Ports
Secretary
MDOT



**be the
driver**
who **saves** lives

“One in 10 Marylanders still don’t use seat belts. It’s simple physics: Even at low speeds, people in a crash continue forward, often resulting in injury or even death for themselves and others. Seat belts save lives, and we need every vehicle occupant to buckle up – every seat, every ride.”

Maryland Department of Transportation
Secretary Jim Ports

ADVANCED DRIVER ASSISTANCE SYSTEMS / ADAS

- Potential to **prevent roughly 40% of all crashes** involving passenger vehicles
- National studies estimate a savings of **37% of all injuries** and **29% of all fatalities** that occurred in those crashes
- That's 4 out of every 10 crashes never happening from proper use of this technology!

SOURCE: AAA Foundation for Traffic Safety study:

https://aaafoundation.org/wp-content/uploads/2018/09/18-0567_AAAFTS-ADAS-Potential-Benefits-Brief_v2.pdf

CLEARING THE CONFUSION:
Common Naming for Advanced Driver Assistance Systems

Today, most new vehicles are equipped with at least one, but more likely, numerous advanced driver assistance systems (ADAS). The names used to describe them across the industry, however, vary greatly, which creates confusion for consumers.

Six leading organizations committed to consumer safety and education — AAA, Consumer Reports, J.D. Power, National Safety Council, NHTSA, and SAE — have come together to develop the standardized naming conventions for ADAS technologies (shown to the right) which are simple, specific, and based on system functionality.

The organizations are asking automakers to adopt the standardized ADAS terminology to help reduce consumer confusion about the intent and functionality of these systems.

The standardized terms were created to provide clarity to consumers by naming and describing the functions of ADAS in a consistent, easy to understand manner. They are not meant to replace an automaker's proprietary system or package name or those used for marketing purposes.

As part of creating a better understanding, the organizations want consumers to embrace new vehicle technology but also know that these systems are designed to assist and not replace an engaged driver.

NOTE: This list will be updated and further refined as new systems are developed.

COLLISION WARNING

- Blind Spot Warning** Detects vehicles in the blind spot while driving and notifies the driver of their presence. Some systems provide an additional warning if the driver activates the turn signal.
- Forward Collision Warning** Detects a potential collision with a vehicle ahead and alerts the driver. Some systems also provide alerts for pedestrians or other objects.
- Lane Departure Warning** Monitors vehicle's position within the driving lane and alerts driver as the vehicle approaches or crosses lane markers.
- Parking Collision Warning** Detects objects close to the vehicle during parking maneuvers and notifies the driver.
- Rear Cross Traffic Warning** Detects vehicles approaching from the side at the rear of the vehicle while in reverse gear and alerts the driver. Some systems also warn for pedestrians or other objects.

COLLISION INTERVENTION

- Automatic Emergency Braking** Detects potential collisions with a vehicle ahead and automatically steers to avoid or lessen the severity of impact. Some systems also detect pedestrians or other objects.
- Automatic Emergency Steering** Detects potential collisions with a vehicle ahead and automatically steers to avoid or lessen the severity of impact. Some systems also detect pedestrians or other objects.
- Lane Keeping Assistance** Provides steering support to assist the driver in keeping the vehicle in the lane. The system reacts only when the vehicle approaches or crosses a lane line or road edge.
- Reverse Automatic Emergency Braking** Detects potential collisions while in reverse gear and automatically brakes to avoid or lessen the severity of impact. Some systems also detect pedestrians or other objects.

DRIVING CONTROL ASSISTANCE

- Adaptive Cruise Control** Cruise control that also assists with acceleration and/or braking to maintain a driver-selected gap to the vehicle in front. Some systems can come to a stop and continue while others cannot.
- Lane Centering Assistance** Provides steering support to assist the driver in continuously maintaining the vehicle at or near the center of the lane.
- Active Driving Assistance** Simultaneous use of **Lane Centering Assistance** and **Adaptive Cruise Control** features. The driver must constantly supervise the support feature and maintain responsibility for driving.

1. Classified as Level 2 Driving Automation by SAE J3016

Version 07/2020

Logos: AAA, CR Consumer Reports, J.D. POWER, nsc National Safety Council, NHTSA, SAE INTERNATIONAL

MDOT Work on Federal Bipartisan Infrastructure Law



evplan.mdot.maryland.gov/

[MDOT Summary of USDOT
Discretionary Grant Opportunities](#)

www.mdot.maryland.gov/Grants

BRIEF CAV UPDATES

CAV Subgroups [\(See Charter for Info\)](#)

- Emergency Responders Subgroup
- Tech Subgroup
- Policy Subgroup
- Freight Subgroup



BRIEF CAV UPDATES – MDOT UPDATES

- [Maryland Driver's Manual](#) updated with **ADAS** information (pg 41). Maryland is the first state to have any substantial information on ADAS in Driver's Manual for novice drivers!
- Questions being added on **ADAS** to licensing practice test & knowledge test
- Free **ADAS** workshop for driver's ed instructors in the Fall that provides 4.5 hrs professional development
- Links to [National Law Enforcement Liaison Program on ADAS](#)
– how to inform & influence communities they serve
- CAV Day on Oct 8th
- *CAV and the Workforce – Virtual workshop in the Fall*

Personal Delivery Devices

Maryland Information @

<https://mva.maryland.gov/Pages/pdd.aspx>

A **personal delivery device** is a ground-based delivery device that is manufactured for transporting cargo or goods, does not meet the definition of a motor vehicle, and is operated by a driving system that allows for automated and/or remote operations. (AAMVA)



BRIEF CAV UPDATES – PARTNER ANNOUNCEMENTS

- Local government
- State government
- Surrounding States
- Federal government
- Academic
- Industry



Responses / Ideas for ADAS Education

- **How to get the word out?** incorporating in public safety campaign, newsletters, posters, handouts; highlight safety success stories; webinars; committee of speakers; social media; collaboration with many organizations
- **Who needs to be educated?** educate internal staff, first responders, dealerships, manufacturers, drivers/consumers, technicians (repair)
- **What education needs to be conveyed?** appropriate terminology; capabilities of tech; differences of active vs. alerts/warnings for ADAS; differences of ADAS v. ADS; awareness of tech and benefits; staying in control of the vehicle

CAV Demonstrations

3:15 pm to 4:00 pm

- **Annapolis Hyundai** – location and functionality on a new model vehicle
- **Annapolis Subaru** – location and functionality on a new model vehicle
- **Hunter Engineering** – calibration fixtures & equipment; Bosch tool for recalibration; performance when set correctly and when out of sync
- **SafeLife** – placement and functionality in windshields; also radar/camera unit from Volvo