

Department of Legislative Services
 Maryland General Assembly
 2017 Session

FISCAL AND POLICY NOTE
 First Reader

Senate Bill 902 (Senator Ferguson)
 Judicial Proceedings

Vehicle Laws - Safe Autonomous Vehicle (SAVE) Act

This bill defines an “autonomous and connected vehicle” (AV/CV) as a motor vehicle equipped with an automated driving system. The bill expressly permits and sets out minimum guidelines for AV/CV testing in Maryland and authorizes the creation of safe autonomous vehicle (SAVE) projects to permit manufacturers of such vehicles to supervise them on the roads of the State. The bill establishes that an automated driving system in an AV/CV vehicle may be operated on a highway in Maryland and be active as long as the vehicle is properly titled and registered and a part of a SAVE project.

Fiscal Summary

State Effect: Transportation Trust Fund (TTF) expenditures increase by as much as \$949,800 in FY 2018 only for the Motor Vehicle Administration (MVA) to contract with an outside vendor for reprogramming and testing. TTF revenues increase minimally beginning in FY 2018, as discussed below. Likewise, special fund surcharge revenues may increase beginning in FY 2018. However, a reliable estimate of the bill’s effect on revenues cannot be made at this time.

| (in dollars) | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 |
|----------------|-------------|---------|---------|---------|---------|
| SF Revenue | - | - | - | - | - |
| SF Expenditure | \$949,800 | \$0 | \$0 | \$0 | \$0 |
| Net Effect | (\$949,800) | - | - | - | - |

Note: () = decrease; GF = general funds; FF = federal funds; SF = special funds; - = indeterminate increase; (-) = indeterminate decrease

Local Effect: Potential minimal increase in local highway user revenues in the near term. If the number of AV/CV motor vehicles titled and registered increases in subsequent fiscal years, the impact on local highway user revenues may be greater. Expenditures are not affected.

Small Business Effect: None.

Analysis

Bill Summary: The bill requires MVA to create a new registration class (Class S) for AV/CV vehicles and establishes an annual registration fee of \$50.50 per vehicle. In addition, MVA must issue a special registration plate for AV/CV vehicles.

The bill specifies minimum requirements for manufacturers to establish a SAVE project. Manufacturers must produce AV/CV vehicles in the United States in compliance with federal law and have operated their AV/CV vehicles on public roads in the United States for at least one million miles. Furthermore, an eligible AV/CV vehicle manufacturer must have obtained liability insurance or a surety bond or be self-insured in the amount of at least \$10.0 million as well as have provided evidence of the liability insurance, surety bond, or self-insurance to MVA.

As a prerequisite to the creation of a SAVE project, an AV/CV vehicle manufacturer must certify to MVA that the participating fleet of AV/CV vehicles is owned or controlled by the manufacturer, that each vehicle in the fleet is equipped with an automated driving system, automatic crash notification, remote connectivity, two-way communication technology, and a data recording system which records the status of the automated driving system as well as the speed, direction, and location of the vehicle for a specified time period before a crash. Furthermore, each vehicle in the fleet must comply with State and federal law and must be capable of being operated in compliance with the Maryland Vehicle Law.

Once the prerequisites for establishing a SAVE project have been met, a manufacturer may establish a SAVE project by notifying MVA of the geographic boundaries for the project. The boundaries may be determined as highways within a designated area, a given county or municipality, an area or areas maintained by regional authorities, on campuses of institutions of higher education, in communities that cater to senior citizens, or any other similar geographic or demographic area. While a part of a SAVE project, an AV/CV vehicle may only be operated within the boundaries determined for the project.

For the duration of a SAVE project, the AV/CV vehicle manufacturer must maintain crash and safety records for the fleet of vehicles that are a part of the project. The records must be summarized quarterly and sent to MVA as well as the National Highway Traffic Safety Administration (NHTSA). An individual's participation in a SAVE project implies consent to the collection, anonymization, and dissemination of data by MVA and NHTSA. Furthermore, an AV/CV vehicle manufacturer that implements a SAVE project must publicly disclose its data-handling policies and practices in connection with the project before and during the implementation of the project.

While activated, the automated driving system is considered to be the driver of the AV/CV vehicle for the purpose of determining compliance with Maryland Vehicle Law and is also

considered to be validly licensed to drive a motor vehicle on a highway in the State. Each AV/CV vehicle is required to be insured in compliance with State law by the manufacturer.

An AV/CV vehicle manufacturer is liable for all damages arising out of incidents for which the automated driving system was activated and at fault; however, it is immune from liability for damages that arise out of any unauthorized third-party modifications to a system or component within an AV/CV vehicle. An automated crash notification technology within an AV/CV vehicle activating and connecting a representative of the AV/CV vehicle manufacturer with the appropriate law enforcement agency in the event of a crash is deemed to be in compliance with certain laws relating to crash notification. The requirements for infants, children, and adults to be properly wearing seatbelts within a vehicle apply to any human occupants of an AV/CV vehicle. However, the prohibition against unattended motor vehicles does not apply to an AV/CV vehicle.

A person convicted of a violation of the bill is subject to a fine of up to \$10,000.

Current Law: A “motor vehicle” is defined as a vehicle that is self-propelled or propelled by electric power obtained from overhead electrical wires and not operated on rails. Motor vehicles, with some exceptions, must be titled and registered.

Each vehicle registration is subject to a registration fee based on the vehicle classification. For context, a Class A (passenger) vehicle annual registration fee is \$50.50 for a vehicle with a manufacturer’s shipping weight of 3,700 pounds or less, and \$76.50 for a vehicle of more than 3,700 pounds. Most vehicle registration classes are also subject to an annual surcharge of \$17.00 payable to the Maryland Trauma Physician Services Fund and the Maryland Emergency Medical System Operations Fund.

Background: Self-driving, or fully autonomous, vehicles have been the subject of numerous development efforts around the world over the past several decades. More recently, several major automobile manufacturers and Google have unveiled plans to develop an autonomous vehicle for the commercial market. Many newer vehicles already possess autonomous features, even if they are not fully automated.

Because there are varying degrees of automation, NHTSA has adopted a six-level classification continuum that ranks vehicles according to level of autonomy. At level 0, the human driver is responsible for all aspects of operating the vehicle. With each successive level, the vehicle performs increasingly more sophisticated tasks, and, by level 5, the automated system performs all driving tasks under all conditions that a human driver could perform them. NHTSA expects manufacturers and other entities to classify their autonomous vehicles along this continuum.

Legislative Activity in Other States

Nevada was the first state to enact legislation authorizing the use of autonomous vehicles in 2011 and issued its first license to Google in May 2012. According to the National Conference of State Legislatures (NCSL), since then, 8 other states (California, Florida, Louisiana, Michigan, North Dakota, Tennessee, Utah, and Virginia) as well as the District of Columbia have, as of December 2016, also enacted legislation related to autonomous vehicles. The number of states with proposed legislation related to autonomous vehicles has steadily increased in recent years, with 20 states introducing legislation in 2016. Two states – Arizona and Massachusetts – have issued executive orders related to autonomous vehicles. According to NCSL, several issues that states are considering include liability, appropriate levels of insurance, cybersecurity, and the application of distracted driving laws for the individual who engages the autonomous vehicle.

Federal Actions Related to Autonomous Vehicles

In January 2016, the U.S. Department of Transportation (DOT) announced policy guidance updating NHTSA's 2013 preliminary policy statement on autonomous vehicles. DOT and NHTSA's updated policy is to facilitate and encourage the development and deployment of technologies with the potential to save lives.

In September 2016, NHTSA issued more detailed policy guidance on highly autonomous vehicles (HAV). The guidance covers four major aspects of HAV deployment, including (1) vehicle performance guidance; (2) a model state policy; (3) NHTSA's current regulatory tools; and (4) new regulatory tools and authorities.

NHTSA notes that state governments play an important role in facilitating HAVs, ensuring they are safely deployed and promoting their life-saving benefits. The policy guidance confirms that states retain their traditional responsibilities for vehicle licensing and registration, traffic laws and enforcement, and motor vehicle insurance and liability regimes. Since 2014, DOT has partnered with the American Association of Motor Vehicle Administrators to explore HAV policies. The collaboration was one of the bases for NHTSA's policy guidance and identifies where new issues fit within the existing federal/state relationship. The shared objective is to ensure the establishment of a consistent national framework rather than a patchwork of incompatible state laws.

State Revenues:

Transportation Trust Fund

TTF revenues increase beginning in fiscal 2018; any such impact is likely minimal – at least for the first few years of implementation. The impact depends on the total number of

AV/CV motor vehicles that are titled and registered with MVA. This analysis assumes that there is no substitution effect and that these vehicles would not otherwise be able to be registered under an existing class of vehicles; **Exhibit 1** shows the distribution of vehicles by existing class as of fiscal 2015, as well as the registration fees for each class. These Class S vehicles are subject to an annual registration fee of \$50.50. Although MVA’s fee schedule is based on annual fees, registration is biennial; thus, MVA collects double the annual fee with each registration.

Exhibit 1
Distribution of Vehicle Registrations by Class and Fees
Fiscal 2015

| <u>Vehicle Class</u> | <u>Percent of Total</u> | <u>Annual Fee</u> |
|---|-------------------------|-------------------|
| Class A passenger vehicle of up to 3,700 pounds | 41.1% | \$50.50 |
| Class A passenger vehicle of more than 3,700 pounds | 5.2% | 76.50 |
| Class M multipurpose vehicle of up to 3,700 pounds | 7.3% | 50.50 |
| Class M multipurpose vehicle of more than 3,700 pounds | 21.0% | 76.50 |
| Class E truck (three-quarter tons rated capacity or less/ 7,000 pounds or less | 10.2% | 63.75 |

Source: Maryland Department of Transportation; Department of Legislative Services

Even so, a reliable estimate of the increase in TTF revenues cannot be made at this time due to considerable uncertainty regarding the number of AV/CV motor vehicles that will be titled and registered under the bill. Any impact on TTF or other revenues is likely minimal as the bill is anticipated to apply to a very limited number of vehicles annually, given the experimental nature of such vehicles at this time and the requirement that they be part of a SAVE project manufacturer fleet. To the extent that significant numbers of AV/CV vehicles are titled and registered in Maryland under the bill in future fiscal years, the revenue impact for TTF may be more significant.

Other Special Fund Surcharge Revenues

The bill does not require Class S (AV/CV) vehicles to be charged the \$17 annual fee for the Maryland Trauma Physician Services Fund/Maryland Emergency Medical System Operations Fund. This fee is also collected on a biennial basis. Section 13-954 of the Transportation Article, however, allows imposition of the surcharge on any other class designated by the MVA Administrator; if designated as a class for which the surcharge would be imposed, revenue for those funds also increases.

State Expenditures: TTF expenditures increase by as much as \$949,750 in fiscal 2018 only for MVA to contract with an outside vendor for extensive computer reprogramming and testing. Additional internal computer reprogramming changes can be handled with existing resources. It is also assumed that the design of the special registration plate can be handled with existing resources.

Additional Information

Prior Introductions: None.

Cross File: HB 1013 (Delegate McCray) - Environment and Transportation.

Information Source(s): Judiciary (Administrative Office of the Courts); Department of State Police; Maryland Department of Transportation; National Highway Traffic Safety Administration; National Conference of State Legislatures; U.S. Department of Transportation; Department of Legislative Services

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