BILL ANALYSIS

Senate Research Center

S.B. 1167
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Transportation
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As Filed

AUTHOR'S / SPONSOR'S STATEMENT OF INTENT

Autonomous vehicle (AV) technology represents a spectrum of specialized equipment within vehicles that can aid drivers, and eventually supplant them. While there are no fully automatic vehicles currently operating, advanced AV will come on the market within the next few years.

AV represents a technological frontier with many potential benefits. A total of 90 percent of traffic accidents are attributable to human error, and AV can reduce these. In addition, AV opens up transportation options for the elderly and those with mobility impairments. Finally, the time spent driving to and from work can be used more productively with AV.

Texas needs to prepare for this new technology in a way that remains flexible to change. S.B. 1167 will facilitate this paradigm shift in transportation. This bill draws on the institutional knowledge of our state agencies, and avoids prescriptive technology requirements. Furthermore, S.B. 1167 involves the Texas Department of Transportation (TxDOT) in autonomous freight applications, and prepares Texas for AV wireless needs.

S.B. 1167 gives TxDOT the ability to explore autonomous freight vehicle testing with private companies. This can help communities across Texas better manage freight traffic, and address the freight driver shortage in Texas.

S.B. 1167 requires TxDOT to plan for the wireless communication that AV needs to function safely. This plan will incorporate known technologies to act as a baseline for future developments. Creating a wireless communications plan for the state is a prudent step toward facilitating effective AV deployment.

As proposed, S.B. 1167 amends current law relating to relating to autonomous motor vehicles.

RULEMAKING AUTHORITY

Rulemaking authority is expressly granted to the Department of Public Safety of the State of Texas in SECTION 3 (Section 545.428, Transportation Code) of this bill.

SECTION BY SECTION ANALYSIS

SECTION 1. Amends Subchapter F, Chapter 521, Transportation Code, by adding Section 521.1236, as follows:

> Sec. 521.1236. DESIGNATOR ON LICENSE ISSUED FOR OPERATING AUTONOMOUS MOTOR VEHICLE. (a) Defines "autonomous motor vehicle" in this section.
>
> (b) Requires the Department of Public Safety of the State of Texas (DPS) to establish a program to provide an autonomous motor vehicle operation designation either on the face of a driver's license or on the reverse side of the driver's license issued to a person who is authorized to operate an autonomous motor vehicle under Section 545.428.

SECTION 2. Amends Section 541.001(1), Transportation Code, to redefine "operator."

SECTION 3. Amends Subchapter I, Chapter 545, Transportation Code, by adding Section 545.428, as follows:

Sec. 545.428. OPERATION OF AUTONOMOUS MOTOR VEHICLES; PILOT PROGRAM. (a) Defines "autonomous motor vehicle," "autonomous technology," and "upfitter" in this section.

(b) Provides that an operator of an autonomous motor vehicle operating with autonomous technology is:

(1) a person who causes the vehicle's autonomous technology to engage, regardless of whether the person is physically in the autonomous motor vehicle while the vehicle is operating; or

(2) a person who is seated in the driver's seat of the autonomous motor vehicle and continuously monitors the operation of the autonomous motor vehicle.

(c) Prohibits a person from operating an autonomous motor vehicle on a roadway or public highway under Subsection (b) unless:

(1) the person holds a driver's license with an autonomous motor vehicle designation under Section 521.1236; and

(2) the person is an employee, contractor, or designee of:

(A) The Texas Department of Safety;

(B) The Texas Department of Transportation (TxDOT);

(C) a manufacturer of autonomous motor vehicles authorized by DPS to operate autonomous motor vehicles; or

(D) an upfitter authorized by DPS to operate autonomous motor vehicles.

(d) Prohibits a person from disabling motor vehicle safety features that are required by state and federal law during installation of autonomous technology on a motor vehicle or operation of an autonomous motor vehicle.

(e) Requires DPS to adopt rules authorizing the operation of autonomous motor vehicles on roadways and public highways, including rules:

(1) establishing minimum requirements that an autonomous motor vehicle must meet before the vehicle may be operated on a roadway or public highway;

(2) establishing insurance requirements for:

(A) autonomous motor vehicle operators;

(B) manufacturers of autonomous motor vehicles operating autonomous motor vehicles; and

(C) upfitters operating autonomous motor vehicles;

(3) governing the safe operation of autonomous motor vehicles on roadways and public highways;

(4) establishing a method of authorizing manufacturers of autonomous motor vehicles and upfitters to test autonomous motor vehicles and governing the testing of autonomous motor vehicles;

(5) restricting the operation of autonomous motor vehicles to certain geographic regions of this state; and

(f) Authorizes TxDOT to establish an autonomous freight transportation pilot program to collaborate with autonomous motor vehicle manufacturers and upfitters to test the use of autonomous motor vehicles for heavy freight transportation purposes.

(g) Requires TxDOT to establish a plan to install or deploy roadside infrastructure for a statewide wireless communication system to support vehicle-to-infrastructure communications that are essential to the proper performance or operation of autonomous motor vehicles. Requires that the plan incorporate the dedicated short-range communications protocols of the United States Department of Transportation and the microwave bands allocated by the Federal Communications Commission for dedicated short-range communications. Authorizes TxDOT to explore other wireless methods of communication for communications that are not essential to the proper performance or operation of autonomous motor vehicles.

SECTION 4. Effective date: upon passage or September 1, 2015.