
A BILL FOR AN ACT

RELATING TO MOTOR VEHICLES.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

1 SECTION 1. In 2013, Honolulu earned the dubious
2 distinction of having the second worst vehicular traffic
3 congestion of any city in America according to the annual INRIX
4 Traffic Scorecard. While most of this congestion occurs on
5 major arteries of our freeway network, approximately eight per
6 cent of the congestion results from individuals searching for
7 parking spaces. This costs the United States approximately
8 \$100,000,000,000 per year when the costs of providing parking
9 spaces are included.

10 Hawaii's drivers also spend an inordinate amount of time in
11 traffic. In 2013, Hawaii drivers spent approximately sixty
12 hours in traffic, an increase of over seventeen per cent from
13 2012 figures. This equated to over fifty million hours being
14 spent in traffic by Hawaii drivers resulting in approximately
15 \$500,000,000 of time being wasted.

16 The severity of the State's traffic jams, combined with the
17 human error inherent in operating conventional motor vehicles,



1 has been deadly. The Centers for Disease Control and Prevention
2 reported that between 2003 and 2012, six hundred seventy-one
3 vehicle occupants died in traffic accidents and four hundred
4 eighty-four people died in accidents involving a drunk driver in
5 the State. Additionally, the department of health found that
6 four thousand people sustain serious injuries in traffic
7 accidents in Hawaii each year. The legislature finds that human
8 error accounts for up to ninety-five per cent of vehicular
9 collisions, and that according to the Centers for Disease
10 Control, crash-related death costs in Hawaii are approximately
11 \$124,000,000 each year.

12 The legislature further finds that in light of these grim
13 statistics, modern alternatives must be explored. One such
14 alternative has been gaining consideration in other states,
15 including California, Florida, and Nevada: the use of autonomous
16 or "driverless" motor vehicles, which can potentially save lives
17 and reduce commuting times. The Institute of Electrical and
18 Electronics Engineers predicts that seventy-five per cent of
19 vehicles will be "driverless" by 2040. It would, therefore,
20 benefit our state to prepare for inevitable technological



1 advances and authorize the operation of autonomous vehicles,
2 including testing of autonomous vehicles by manufacturers.

3 The purpose of this Act is to allow the operation of
4 autonomous motor vehicles on any road, street, or highway in the
5 State, including allowing manufacturers to test the operation of
6 autonomous motor vehicles.

7 SECTION 2. Chapter 286, Hawaii Revised Statutes, is
8 amended by adding a new part to be appropriately designated and
9 to read as follows:

10 **"PART . AUTONOMOUS MOTOR VEHICLES**

11 **§286-A Definitions.** As used in this part, unless a
12 different meaning clearly appears from the context:

13 "Autonomous motor vehicle" means any vehicle equipped with
14 autonomous technology that has been integrated into that
15 vehicle.

16 "Autonomous technology" means technology that has the
17 capability to drive a vehicle without the active physical
18 control or monitoring by a human operator; provided that the
19 term shall not include a vehicle that is equipped with one or
20 more collision avoidance systems, including but not limited to
21 electronic blind spot assistance, automated emergency braking



1 systems, park assist, adaptive cruise control, lane keep assist,
2 lane departure warning, traffic jam and queuing assist, or other
3 similar systems that enhance safety or provide driver
4 assistance, but are not capable of driving the vehicle without
5 the active control or monitoring of a human operator.

6 "Manufacturer" means the entity or individual that
7 originally manufactures a vehicle and equips autonomous
8 technology on the originally completed vehicle or, in the case
9 of a vehicle not originally equipped with autonomous technology
10 by the vehicle manufacturer, the person that modifies the
11 vehicle by installing autonomous technology to convert it to an
12 autonomous motor vehicle after the vehicle was originally
13 manufactured.

14 "Operator" means the person who is seated in the driver's
15 seat of the autonomous motor vehicle, or if there is no person
16 in the driver's seat, causes the autonomous technology to
17 engage.

18 **§286-B Autonomous motor vehicle; operational**
19 **requirements.** (a) No person shall operate an autonomous motor
20 vehicle on any road, street, or highway unless the autonomous
21 motor vehicle meets the requirements for the operation of an



1 autonomous motor vehicle pursuant to this part and as
2 established by the department through rules adopted pursuant to
3 chapter 91.

4 (b) Requirements for the operation of an autonomous motor
5 vehicle on a road, street, or highway shall include, at a
6 minimum, safety requirements, minimum insurance coverage
7 requirements, and any equipment and performance standards that
8 the department concludes are necessary to ensure the safe
9 operation of autonomous motor vehicles on a road, street, or
10 highway.

11 **§286-C Licensing, registration, and insurance**

12 **requirements.** (a) No person shall operate an autonomous motor
13 vehicle with its autonomous technology engaged unless the person
14 is duly licensed to operate the autonomous motor vehicle as
15 provided for in section 286-102 or is operating the autonomous
16 motor vehicle as part of a test authorized under a director's
17 approval for testing the autonomous motor vehicle issued
18 pursuant to section 286-D.

19 (b) An autonomous motor vehicle shall be registered as a
20 motor vehicle in accordance with section 286-41.



1 (c) No autonomous motor vehicle shall be operated on any
2 road, street, or highway without being properly insured in
3 accordance with article 10C of chapter 431.

4 §286-D Manufacturer testing. (a) The department may
5 allow a manufacturer of an autonomous motor vehicle to test the
6 autonomous motor vehicle on any road, street, or highway in the
7 State if the requirements under subsection (d) are met by the
8 manufacturer.

9 (b) Before testing an autonomous vehicle on any public
10 road, street, or highway in the State, a manufacturer shall
11 submit to the director an application for approval to test the
12 vehicle made on an appropriate form furnished by the department.

13 (c) The department may assess and collect any reasonable
14 fees necessary to cover any costs associated with the
15 application process, including any administrative fees.

16 (d) Requirements for the testing of an autonomous motor
17 vehicle by a manufacturer on any road, street, or highway shall
18 include:

- 19 (1) Evidence of insurance or surety bond; and
20 (2) Submission of documentation to the department that
21 contains the following certifications:



- 1 (A) The autonomous motor vehicle has a mechanism to
- 2 engage and disengage the autonomous technology
- 3 that is easily accessible to the operator;
- 4 (B) The autonomous motor vehicle has a visual
- 5 indicator inside the cabin to indicate when the
- 6 autonomous technology is engaged;
- 7 (C) The autonomous motor vehicle has a system to
- 8 safely alert the operator if an autonomous
- 9 technology failure is detected while the
- 10 autonomous technology is engaged;
- 11 (D) The autonomous motor vehicle allows the operator
- 12 to take control of the vehicle in multiple
- 13 manners, including through the use of the brake,
- 14 the accelerator pedal, or the steering wheel;
- 15 (E) The autonomous motor vehicle alerts the operator
- 16 that the autonomous technology has been
- 17 disengaged;
- 18 (F) The autonomous motor vehicle's autonomous
- 19 technology meets federal motor vehicle safety
- 20 standards for the vehicle's model year and all



1 other applicable federal and state safety
 2 standards and performance requirements;
 3 (G) The autonomous technology does not make
 4 inoperative any federal motor vehicle safety
 5 standards for the vehicle's model year and all
 6 other applicable federal and state safety
 7 standards and performance requirements; and

8 (H) The autonomous motor vehicle has a separate
 9 mechanism, in addition to, and separate from, any
 10 other mechanism required by law, to capture and
 11 store the autonomous technology sensor data for
 12 at least thirty seconds before a collision occurs
 13 between the autonomous motor vehicle and another
 14 vehicle, object, or person while the vehicle is
 15 operating in autonomous mode.

16 **§286-E Retail sales.** No autonomous motor vehicle shall
 17 be sold in this State unless it meets the operational
 18 requirements established by the department pursuant to section
 19 286-B.

20 **§286-F Cybersecurity.** Any autonomous motor vehicle
 21 sold, operated, or tested in the State shall have security



1 systems and security procedures in place to ensure protections
2 against cyber attack.

3 (b) The department, in consultation with individuals with
4 expertise in cyber security, shall develop cybersecurity
5 requirements for autonomous motor vehicles through rules adopted
6 in accordance with chapter 91."

7 SECTION 3. Section 286-102, Hawaii Revised Statutes, is
8 amended by amending subsection (b) to read as follows:

9 "(b) A person operating the following category or
10 combination of categories of motor vehicles shall be examined as
11 provided in section 286-108 and duly licensed by the examiner of
12 drivers:

13 (1) Mopeds;

14 (2) Motorcycles and motor scooters;

15 (3) Passenger cars of any gross vehicle weight rating,
16 buses designed to transport fifteen or fewer
17 occupants, and trucks and vans having a gross vehicle
18 weight rating of eighteen thousand pounds or less;

19 [~~and~~]

20 (4) All of the motor vehicles in category (3) and any
21 vehicle that is not a commercial motor vehicle~~[]~~; and



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1 (5) Autonomous motor vehicles.

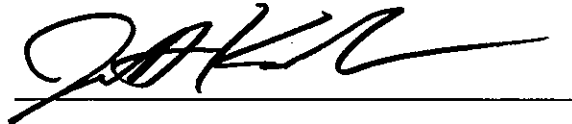
2 A school bus or van operator shall be properly licensed to
3 operate the category of vehicles that the operator operates as a
4 school bus or van and shall comply with the standards of the
5 department of transportation as provided by rules adopted
6 pursuant to section 286-181."

7 SECTION 4. Statutory material to be repealed is bracketed
8 and stricken. New statutory material is underscored.

9 SECTION 5. This Act shall take effect upon its approval.

10

INTRODUCED BY:



SCOTT R. BROWN

Cindy Evans

COUS

Tom Brown

JAN 29 2015



H.B. NO. 1458

Report Title:

Autonomous Motor Vehicles; Department of Transportation;
Testing; Operation and Licensing; Retail Sales

Description:

Allows autonomous motor vehicles to be operated on any road, street, or highway if certain requirements are met. Allows for manufacturer testing of autonomous motor vehicles on any road, street, or highway.

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