



June 30, 2022

STATE REGULATION OF AUTONOMOUS VEHICLES

Definition of Autonomous Vehicle

“Autonomous vehicle” is a term used to define a vehicle capable of operating without the intervention of a human driver, and with the use of an automated driving system (ADS). A vehicle with an ADS is designed to perform the entire dynamic driving task without human intervention within its operational design domain.

The dynamic driving task refers to operational and tactical functions required to operate a motor vehicle on a highway in traffic, while the term “minimal risk condition” refers to a safe state to which an ADS brings a vehicle upon experiencing a failure of the system that renders the system unable to perform the entire dynamic driving task.

Simply put, if an ADS-equipped vehicle can’t perform the dynamic driving task properly, it must come to a state of minimal risk condition. The term “operational design domain” refers to the conditions that an ADS has been designed to function within, such as geography, environment, and traffic characteristics.

Six levels of vehicle autonomy are typically associated with ADS technologies and definitions. They vary widely, from level 0, which refers to most passenger vehicles on the road that offer no assistance apart from cruise control, to level 5 vehicles, which require no human intervention whatsoever. In general, this memorandum references governmental action to regulate levels 3-5 of vehicle automation.

Prior to SB 313, enacted in 2022, no statute authorized operation in Kansas for autonomous vehicles, and actions by and equipment for a human driver have been required, e.g., a human driver was required to be able to respond in the event of an incident. This implicitly prohibited the use of a vehicle with an ADS for both individuals and businesses within Kansas.

Autonomous Vehicle Legislation in Kansas

SB 313, a bill concerning autonomous motor vehicles, allows for the use of an ADS-equipped vehicle in autonomous mode if it meets certain criteria:

- The vehicle must be able to achieve a minimal risk condition in the event the ADS cannot perform the entire dynamic driving task;

- The vehicle must be capable of following all traffic and motor vehicle safety laws and regulations that apply to the dynamic driving task;
- The vehicle must have the manufacturer’s certification label, indicating it is in compliance with all applicable motor vehicle safety standards;
- The vehicle must be under 34,000 pounds on tandem axles until July 1, 2025; and
- A driver must be present in each driverless-capable vehicle in service for 12 consecutive months from the date that the owner places such vehicle in service in Kansas if the vehicle is designed for a human driver.

In addition to these criteria, the owner of a driverless-capable vehicle who intends to use an ADS must submit a law enforcement interaction plan to the Kansas Highway Patrol (KHP). The vehicle must be registered and titled as driverless-capable.

It is also lawful for ADS-equipped vehicles to perform the dynamic driving task while a conventional human driver is present as long as the human driver can respond to requests to intervene, has a license and insurance, operates the vehicle according to manufacturer’s requirements, and can regain control of the vehicle when prompted. This means that if there is a driver in an ADS-equipped vehicle who can respond to potential problems, the vehicle can self-drive provided that the other requirements mentioned above have been met.

The bill authorizes on-demand driverless-capable vehicle networks, which are transportation network companies (TNCs) that can use driverless-capable vehicles for transporting people or goods. These include transportation for hire as well as public transportation. While the Transportation Network Company Services Act applies generally, provisions that by their nature apply only to a human driver do not.

Similarly, the Uniform Act Regulating Traffic on Highways applies to driverless-capable vehicles to the extent practicable, but its provisions cannot require additional operations or equipment that is not applicable to driverless-capable vehicles, including operation by a conventional human driver.

The bill also establishes an Autonomous Vehicle Advisory Committee to report activities and recommendations for use and regulation of ADS-equipped vehicles by July 1 of every year, starting in 2023, and ending in 2027. Its membership includes legislators, designees of certain organizations including trade and municipal organizations, and representatives of law enforcement and certain state agencies.

Other State Laws

All of the states but seven (Alaska, Massachusetts, Missouri, Montana, Rhode Island, Virginia, and Wyoming) and the District of Columbia have legislation or executive orders regarding autonomous vehicles. The type of authorization varies from state to state, both in which body creates the authorization and what automated vehicles and activities the authorization covers. Of the states authorizing testing or full autonomous vehicle use, 9 authorize use of autonomous vehicle technology through either executive orders or rules and

regulations authority, and 25 have statutory authorization; California and Hawaii authorize such use through both statutory and executive authority.

Authorizations in seven states permit only a study, define terms, or authorize funding relating to autonomous vehicles. Twenty states regulate what is known as truck platooning, in which a human truck driver leads several trucks that are linked via vehicle-to-vehicle communications to form and maintain a tight formation following the lead truck. These trail vehicles must have a conventional driver in the truck to intervene as necessary and operate the vehicle where platooning is not authorized or prudent.

The table below identifies states that have legislation or executive action that authorizes use of autonomous vehicles. This authorization can vary widely, from testing to full deployment without a human driver. Autonomous vehicle testing sometimes involves trials at private lots or at universities, but the majority of tests are conducted on public roads and highways with conventional drivers who can intervene as the vehicle operates.

| Activity Authorized | States Authorizing by Statute | States Authorizing by Other Means |
|--|--|-----------------------------------|
| Full deployment | AL, AR, AZ, CA, FL, GA, IA, KS, LA*, NE, NV, NC, ND, OK, TN, TX, UT, WV | CA |
| Testing | DC, HI, MI, NH, NM, VT | HI, MD, ME, OH, IL |
| Testing with operator | CT | MA, NY, WY |
| Truck platooning | AL, AR, GA, IN, KY, LA, MD, MI, MS, NV, NM, NC, ND, PA, SC, SD, TN, UT, WV, WI | N/A |
| Study | CO, OR**, PA | DE, ID, MN, NJ |
| Transportation network company operation | AR, AZ, IA, KS, MI, NE, NV, NH, ND, OK | N/A |

*Commercial vehicles only

** Repealed Jan. 2, 2021

Sources:

- Alabama: 2019 AL SB 47, 2018 AL SB 125; Ala.Code 1975 §§32-9B-1 *et seq.*, 32-5A-89
- Arizona: 2021 AZ HB 813; A.R.S. § 28-9701 *et seq.*
- Arkansas: 2021 AR HB 1562, 2017 AR HB 1754; A.C.A. § § 27-51-2001 *et seq.*, 27-51-305, 27-51-1408

- California: California Code of Regulations, Title 13, Division 1, Ch. 1, Article 38 § 228
- Colorado: 2021 CO SB 260; C.R.S.A. § 43-1-130
- Connecticut: 2019 CT SB 924; CT Gen Stat § 13a-260
- Delaware: 2017 Delaware Executive Order (EO) 14
- Florida: 2021 FL HB 1289; F.S.A. § 316.2122
- Georgia: 2017 GA SB 219, 2017 GA HB 472; Ga. Code Ann., §§ 40-8-11, 40-6-49
- Hawaii: 2017 Hawaii EO 07; 2020 HB 2590
- Idaho: 2018 Idaho EO 01
- Illinois: 2018 Illinois EO 13
- Indiana: 2018 HB 1290; IC 9-21-8-0.5, IC 9-21-8-14, IC 9-21-8-15, IC 9-21-8-16, IC 9-21-8-22
- Iowa: 2019 IA SB 302; I.C.A § 321.514 *et seq.*
- Kansas: 2022 KS SB 313; KSA §§ 8-2106, § 8-2204
- Kentucky: 2018 KY SB 116; K.R.S. § 281.764
- Louisiana: 2018 LA HB 308, 2019 LA HB 445; L.S.A. § 32:81, L.S.A. § 32:400.1 *et seq.*
- Maine: 2017 ME HR 1204, 2018 Maine EO 001, 2020 Regulation 17 § 229 Ch. 800
- Maryland: CAV Working Group, 2021 MD SB 0291; MD Code, Transportation § 21-310
- Michigan: 2016 SB 995; M.C.L.A. 257.2b, M.C.L.A. 257.665 and others
- Minnesota: 2018 Minnesota EO 04
- Mississippi: 2018 MS HB 1343; Miss. Code Ann. §§63-3-103, 63-3-619
- Nebraska: 2017 NE LB 989; Neb. Rev. St. § 60-3301 *et seq.*
- Nevada: 2013 NV SB313, 2017 AB 69, 2021 SB 288; N.R.S. 482A.010 *et seq.*, N.R.S. 706A.046 *et seq.*
- New Hampshire: 2019 NH SB 216; N.H. Rev. Stat. § 242:1
- New Jersey: 2018 NJ AJR 164
- New Mexico: 2021 NM HB 270; N. M. S. A. 1978, §§ 66-7-13, 66-7-318
- New York: 2018 NY SB 2005
- North Carolina: 2017 NC HB 716, 2017 HB 469; N.C.G.S.A. § 20-152, N.C.G.S.A. § 20-400 *et seq.*
- North Dakota: 2019 ND HB 1418, 2019 ND HB 1199; NDCC, §§ 8-12-01, 8-12-02, 39-01-01.2, 39-10-18, 39-10-74
- Ohio: 2019 OH EO 26D
- Oklahoma: 2022 OK SB 1541; 47 Okl.St.Ann. § 1701 *et seq.*
- Oregon: 2018 OR H 4063; O.R.S. Title 18, Ch. 184 (Subsequently repealed)
- Pennsylvania: 2018 PA HB 1958; 75 Pa.C.S.A. § 3317, 75 Pa.C.S.A. §§ 8502, 8503
- South Carolina: 2017 SC HB 3289; Code 1976 § 56-5-1930
- South Dakota: 2019 SD HB 1068; SDCL § 32-26-50, ARSD 70:15:01:01 *et seq.*
- Tennessee: 2017 TN SB 151, 2017 TN SB 676; T. C. A. § 55-30-101 *et seq.*, T. C. A. § 55-8-201

- Texas: 2017 TX SB 2205; Texas Transportation Code § 545.451 *et seq.*
- Utah: 2018 UT SB 263, 2019 HB 101; U.C.A. 1953 § 41–6a–711, U.C.A. 1953 § 41-26-101 *et seq.*
- Vermont: 2019 VT SB 149; 23 V.S.A. § 4203
- Washington: 2017 Washington EO 02, 2021 WA SB 5460; RCWA 46.92.010
- Washington, D.C.: D.C. Law 23-156; Code of the District of Columbia § 60-2352-01 *et seq.*
- West Virginia: 2022 WV HB 4787; W. Va. Code, § 17H-1-1 *et seq.*
- Wisconsin: 2017 WI SB 695; W.S.A. 346.14