

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2017

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HOUSE BILL 469*
Committee Substitute Favorable 4/24/17
Senate Transportation Committee Substitute Adopted 6/14/17

Short Title: Regulation of Fully Autonomous Vehicles. (Public)

Sponsors:

Referred to:

March 27, 2017

1 A BILL TO BE ENTITLED
2 AN ACT TO REGULATE THE OPERATION OF FULLY AUTONOMOUS MOTOR
3 VEHICLES ON THE PUBLIC HIGHWAYS OF THIS STATE.

4 The General Assembly of North Carolina enacts:

5 SECTION 1. Chapter 20 of the General Statutes is amended by adding a new
6 Article to read:

7 "Article 18.

8 "Regulation of Fully Autonomous Vehicles.

9 "§ 20-400. Definitions.

10 The following definitions apply in this Article:

- 11 (1) Automated driving system. – The hardware and software that are
12 collectively capable of performing the entire dynamic driving task on a
13 sustained basis, regardless of whether it is operating within a limited or
14 unlimited operational design domain.
- 15 (2) Dynamic driving task. – All of the real-time operational and tactical control
16 functions required to operate a motor vehicle in motion or which has the
17 engine running, such as:
- 18 a. Lateral vehicle motion control via steering.
- 19 b. Longitudinal motion control via acceleration and deceleration.
- 20 c. Monitoring the driving environment via object and event detection,
21 recognition, classification, and response preparation.
- 22 d. Object and event response execution.
- 23 e. Maneuver planning.
- 24 f. Enhancing conspicuity via lighting, signaling, and gesturing.
- 25 (3) Fully autonomous vehicle. – A motor vehicle equipped with an automated
26 driving system that will not at any time require an occupant to perform any
27 portion of the dynamic driving task when the automated driving system is
28 engaged. If equipment that allows an occupant to perform any portion of the
29 dynamic driving task is installed, it must be stowed or made unusable in
30 such a manner that an occupant cannot assume control of the vehicle when
31 the automated driving system is engaged.
- 32 (4) Minimal risk condition. – An operating mode in which a fully autonomous
33 vehicle with the automated driving system engaged achieves a reasonably
34 safe state, bringing the vehicle to a complete stop, upon experiencing a



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1 failure of the automatic driving system that renders the vehicle unable to
2 perform any portion of the dynamic driving task.

3 (5) Operator. – For the purposes of this Article, is a person as defined in
4 G.S. 20-4.01. An operator does not include an occupant within a fully
5 autonomous vehicle performing solely strategic driving functions.

6 (6) Operational design domain. – Specific conditions under which an automated
7 driving system is limited to effectively operate, such as geographical
8 limitations, roadway types, speed range, and environmental conditions.

9 (7) Strategic driving functions. – Control of navigational parameters such as trip
10 scheduling or the selection of destinations and waypoints, but does not
11 include any portion of the dynamic driving task.

12 **§ 20-401. Regulation of fully autonomous vehicles.**

13 (a) Driver's License Not Required. – Notwithstanding the provisions of G.S. 20-7 and
14 this Chapter, the operator of a fully autonomous vehicle with the automated driving system
15 engaged is not required to be licensed to operate a motor vehicle.

16 (b) Vehicle Registration Card in Vehicle. – For a fully autonomous vehicle, the
17 provisions of G.S. 20-49(4) and G.S. 20-57(c) are satisfied if the vehicle registration card is in
18 the vehicle, physically or electronically, and readily available to be inspected by an officer or
19 inspector.

20 (c) Parent or Legal Guardian Responsible for Certain Violations. – The parent or legal
21 guardian of a minor is responsible for a violation of G.S. 20-135.2B, the prohibition on children
22 in an open bed of a pickup, or G.S. 20-137.1, the child restraint law, if the violation occurs in a
23 fully autonomous vehicle.

24 (c1) Minimum Age for Unsupervised Minors in Fully Autonomous Vehicles. – It is
25 unlawful for any parent or legal guardian of a person less than 12 years of age to knowingly
26 permit that person to occupy a fully autonomous vehicle in motion or which has the engine
27 running unless the person is under the supervision of a person 18 years of age or older.

28 (d) Registered Owner Responsible for Moving Violations. – The person in whose name
29 the fully autonomous vehicle is registered is responsible for a violation of this Chapter that is
30 considered a moving violation, if the violation involves a fully autonomous vehicle.

31 (e) Unattended Vehicle. – A vehicle shall not be considered unattended pursuant to
32 G.S. 20-163 or any other provision of Chapter 20 of the General Statutes merely because it is a
33 fully autonomous vehicle with the automated driving system engaged.

34 (f) Duty to Stop in the Event of a Crash. – If all of the following conditions are met
35 when a fully autonomous vehicle is involved in a crash, then the provisions of subsections (a)
36 through (c2) and subsection (e) of G.S. 20-166 and subsections (a) and (c) of G.S. 20-166.1
37 shall be considered satisfied, and no violation of those provisions shall be charged:

38 (1) The vehicle or the operator of the vehicle promptly contacts the appropriate
39 law enforcement agency to report the crash.

40 (2) The vehicle or operator of the vehicle promptly calls for medical assistance,
41 if appropriate.

42 (3) For a reportable crash, the vehicle remains at the scene of the crash until
43 vehicle registration and insurance information is provided to the parties
44 affected by the crash, and a law enforcement officer authorizes the vehicle to
45 be removed.

46 (4) For a nonreportable crash, the vehicle remains at the scene or in the
47 immediate vicinity of the crash until vehicle registration and insurance
48 information is provided to the parties affected by the crash.

49 (g) Operation. – A person may operate a fully autonomous vehicle if the vehicle meets
50 all of the following requirements:

- 1 (1) Unless an exemption has been granted under applicable State or federal law,
2 the vehicle:
3 a. Is capable of being operated in compliance with Articles 3, 3A, 7, 11,
4 and 13 of this Chapter;
5 b. Complies with applicable federal law; and
6 c. Has been certified as being in compliance with applicable federal
7 motor vehicle safety standards by any of the following:
8 i. The vehicle manufacturer at the time of the manufacture;
9 ii. The manufacturer of the automated vehicle system prior to
10 any introduction of the automated driving system equipped
11 vehicle on a public roadway; or
12 iii. An after-market installer of the automated driving system
13 upon completion of such installation.
14 (2) The vehicle has the capability to meet the requirements of subsection (f) of
15 this section.
16 (3) The vehicle can achieve a minimal risk condition.
17 (4) The vehicle is covered by a motor vehicle liability policy meeting the
18 applicable requirements of G.S. 20-279.21.
19 (5) The vehicle is registered in accordance with Part 3 of Article 3 of this
20 Chapter, and, if registered in this State, the vehicle shall be identified on the
21 registration and registration card as a fully autonomous vehicle.

22 (h) Preemption. – No local government shall enact any local law or ordinance related to
23 the regulation or operation of fully autonomous vehicles or vehicles equipped with an
24 automated driving system, other than regulation specifically authorized in Chapter 153A and
25 Chapter 160A of the General Statutes that is not specifically related to those types of motor
26 vehicles.

27 **"§ 20-402. Applicability to vehicles other than fully autonomous vehicles.**

28 (a) Definitions. – As used in this section, a "request to intervene" means notification by
29 a vehicle to the human operator that the operator should promptly begin or resume performance
30 of part or all of the dynamic driving task.

31 (b) Applicability. – Operation of a motor vehicle equipped with an automated driving
32 system capable of performing the entire dynamic driving task with the expectation that a human
33 operator will respond appropriately to a request to intervene is lawful under this Chapter and
34 subject to the provisions of this Chapter."

35 **SECTION 2.** This act becomes effective December 1, 2017, and applies to
36 offenses committed on or after that date. Prosecutions for offenses committed before the
37 effective date of this act are not abated or affected by this act, and the statutes that would be
38 applicable but for this act remain applicable to those prosecutions.