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[Report No. 115–187]

To support the development of highly automated vehicle safety technologies,
and for other purposes.

IN THE SENATE OF THE UNITED STATES

SEPTEMBER 28, 2017

Mr. THUNE (for himself, Mr. PETERS, Mr. BLUNT, and Ms. STABENOW) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

NOVEMBER 28, 2017

Reported by Mr. THUNE, with an amendment

[Strike out all after the enacting clause and insert the part printed in *italic*]

A BILL

To support the development of highly automated vehicle
safety technologies, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

4 (a) ~~SHORT TITLE.~~—This Act may be cited as the

5 ~~“American Vision for Safer Transportation through Ad-~~

1 vancement of Revolutionary Technologies Act” or the “AV
2 START Act”.

3 (b) TABLE OF CONTENTS.—The table of contents of
4 this Act is as follows:

- Sec. 1. Short title; table of contents.
- Sec. 2. Definitions.
- Sec. 3. Relationship to other laws.
- Sec. 4. Expedited resolution of highly automated vehicles conflicts with standards.
- Sec. 5. Highly automated vehicles testing.
- Sec. 6. Highly automated vehicles exemptions.
- Sec. 7. Inoperative controls.
- Sec. 8. Levels of driving automation.
- Sec. 9. Safety evaluation report.
- Sec. 10. Highly Automated Vehicles Technical Safety Committee.
- Sec. 11. Highly automated vehicles rulemaking.
- Sec. 12. Consumer education.
- Sec. 13. Traffic safety and law enforcement.
- Sec. 14. Cybersecurity.
- Sec. 15. Savings provision.

5 **SEC. 2. DEFINITIONS.**

6 (a) IN GENERAL.—In this Act:

7 (1) AUTOMATED DRIVING SYSTEM; DEDICATED
8 HIGHLY AUTOMATED VEHICLE; HIGHLY AUTOMATED
9 VEHICLE; MANUFACTURER; MOTOR VEHICLE; MOTOR
10 VEHICLE EQUIPMENT.—The terms “automated driv-
11 ing system”, “dedicated highly automated vehicle”,
12 “highly automated vehicle”, “manufacturer”, “motor
13 vehicle”, and “motor vehicle equipment” have the
14 meanings given such terms in section 30102 of title
15 49, United States Code, as amended by subsection
16 (b).

17 (2) NHTSA.—The term “NHTSA” means the
18 National Highway Traffic Safety Administration.

1 (3) SECRETARY.—The term “Secretary” means
2 the Secretary of Transportation.

3 (b) MOTOR VEHICLE SAFETY CHAPTER.—Section
4 30102(a) of title 49, United States Code, is amended—

5 (1) by redesignating paragraphs (5) through
6 (13) as paragraphs (8) through (16) respectively;

7 (2) by redesignating paragraphs (3) and (4) as
8 paragraphs (5) and (6), respectively;

9 (3) by redesignating paragraphs (1) and (2) as
10 paragraphs (2) and (3), respectively;

11 (4) by inserting before paragraph (2), as redesi-
12 gnated, the following:

13 “(1) AUTOMATED DRIVING SYSTEM.—In de-
14 scribing a Level 3, 4, or 5 automated driving system
15 (as defined by SAE International standard J3016,
16 published on September 30, 2016, or subsequently
17 adopted by the Secretary), the term ‘automated driv-
18 ing system’ means the hardware and software that
19 is collectively capable of performing the entire dy-
20 namic driving task on a sustained basis, regardless
21 of whether the system is limited to a specific oper-
22 ational design domain.”;

23 (5) by inserting after paragraph (3), as redesi-
24 gnated, the following:

1 “(4) DEDICATED HIGHLY AUTOMATED VEHI-
 2 CLE.—The term ‘dedicated highly automated vehicle’
 3 means a highly automated vehicle designed to be op-
 4 erated exclusively (as defined by the SAE Inter-
 5 national standard J3016, published on September
 6 30, 2016) by a Level 4 or 5 automated driving sys-
 7 tem (as defined by the SAE International standard
 8 J3016, published on September 30, 2016, or subse-
 9 quently adopted by the Secretary) for all trips.”; and

10 (6) by inserting after paragraph (6), as redesign-
 11 nated, the following:

12 “(7) HIGHLY AUTOMATED VEHICLE.—The term
 13 ‘highly automated vehicle’ means a motor vehicle
 14 with a gross vehicle weight of 10,000 pounds or less
 15 that is equipped with a Level 3, 4, or 5 automated
 16 driving system (as defined by SAE International
 17 standard J3016, published on September 30, 2016,
 18 or subsequently adopted by the Secretary).”.

19 **SEC. 3. RELATIONSHIP TO OTHER LAWS.**

20 (a) IN GENERAL.—Section 30103 of title 49, United
 21 States Code, is amended—

22 (1) in subsection (b), to read as follows:

23 “(b) PREEMPTION.—

24 “(1) HIGHLY AUTOMATED VEHICLES.—No
 25 State or political subdivision of a State may main-

1 tain, enforce, prescribe, or continue in effect any law
2 or regulation regarding the design, construction, or
3 performance of highly automated vehicles, auto-
4 mated driving systems, or components of automated
5 driving systems unless such law or regulation is
6 identical to a standard prescribed under this chap-
7 ter.

8 “(2) MOTOR VEHICLE STANDARD.—When a
9 motor vehicle safety standard is in effect under this
10 chapter, a State or political subdivision of a State
11 may prescribe or continue in effect a standard appli-
12 cable to the same aspect of performance of a motor
13 vehicle or motor vehicle equipment only if the stand-
14 ard is identical to the standard prescribed under this
15 chapter.

16 “(3) RULES OF CONSTRUCTION.—

17 “(A) IN GENERAL.—Nothing in this sub-
18 section may be construed to prohibit a State or
19 a political subdivision of a State from maintain-
20 ing, enforcing, prescribing, or continuing in ef-
21 fect any law or regulation regarding registra-
22 tion, licensing, driving education and training,
23 insurance, law enforcement, crash investiga-
24 tions, safety and emissions inspections, congest-
25 tion management of vehicles on the street with-

1 in a State or political subdivision of a State, or
2 traffic unless the law or regulation is an unrea-
3 sonable restriction on the design, construction,
4 or performance of highly automated vehicles,
5 automated driving systems, or components of
6 automated driving systems.

7 “(B) MOTOR VEHICLE DEALERS.—Nothing
8 in this subsection may be construed to prohibit
9 a State or political subdivision of a State from
10 maintaining, enforcing, prescribing, or con-
11 tinuing in effect any law or regulation regard-
12 ing the sale, distribution, repair, or service of
13 highly automated vehicles, automated driving
14 systems, or components of automated driving
15 systems by a dealer, manufacturer, or dis-
16 tributor.

17 “(C) CONFORMITY WITH FEDERAL LAW.—
18 Nothing in this subsection shall be construed to
19 preempt, restrict, or limit a State or political
20 subdivision of a State from acting in accordance
21 with any other Federal law.

22 “(4) HIGHER PERFORMANCE REQUIREMENT.—
23 However, the United States Government, a State, or
24 a political subdivision of a State may prescribe a
25 standard for a motor vehicle, motor vehicle equip-

1 ment, highly automated vehicle, or automated driv-
 2 ing system obtained for its own use that imposes a
 3 higher performance requirement than that required
 4 by the otherwise applicable standard under this
 5 chapter.

6 “(5) STATE ENFORCEMENT.—A State may en-
 7 force a standard that is identical to a standard pre-
 8 scribed under this chapter.”; and

9 (2) in subsection (c), to read as follows:

10 “(c) COMMON LAW LIABILITY.—

11 “(1) IN GENERAL.—Compliance with a motor
 12 vehicle safety standard prescribed under this chapter
 13 does not exempt a person from liability at common
 14 law.

15 “(2) RULE OF CONSTRUCTION.—Nothing in
 16 this section shall be construed to preempt common
 17 law claims.”.

18 (b) LICENSING.—Notwithstanding section 30103 of
 19 title 49, United States Code, as amended by subsection
 20 (a), a State may not issue a motor vehicle operator’s li-
 21 cense for the operation or use of a dedicated highly auto-
 22 mated vehicle in a manner that discriminates on the basis
 23 of disability (as defined in section 3 of the Americans with
 24 Disabilities Act of 1990 (42 U.S.C. 12102)).

1 **SEC. 4. EXPEDITED RESOLUTION OF HIGHLY AUTOMATED**
 2 **VEHICLES CONFLICTS WITH STANDARDS.**

3 (a) **DEFINITIONS.**—In this section:

4 (1) **DIRECTOR.**—The term “Director” means
 5 the Director of the John A. Volpe National Trans-
 6 portation Systems Center of the Department of
 7 Transportation.

8 (2) **DYNAMIC DRIVING TASK.**—The term “dy-
 9 namic driving task” has the meaning given the term
 10 by SAE International standard J3016, published on
 11 September 30, 2016.

12 (3) **SAFETY STANDARD.**—The term “safety
 13 standard” means a Federal motor vehicle safety
 14 standard prescribed under chapter 301 of title 49,
 15 United States Code.

16 (b) **REFERENCES TO HUMAN DRIVERS.**—Not later
 17 than 180 days after the date of the enactment of this Act,
 18 the Director or other designated entity, after consultation
 19 with stakeholders, shall prepare and submit to the Sec-
 20 retary a report that identifies each provision, requirement,
 21 specification, or procedure in a safety standard with a ref-
 22 erence to features of the equipment that—

23 (1) are necessary only for the performance of
 24 the dynamic driving task by a human driver;

1 (2) specify a location or reference point within
2 a vehicle by reference to the position of a human
3 driver; or

4 (3) serve a purpose of providing information to,
5 or receiving input from, a human driver engaged in
6 performing the dynamic driving task.

7 (c) SUBSTITUTION OF CONFORMING REFERENCES TO
8 AUTOMATED SYSTEMS.—

9 (1) IN GENERAL.—In each provision of the re-
10 port prepared under subsection (b) identifying the
11 text of a regulation from a safety standard, a test
12 procedure, or a method for determining compliance
13 with a safety standard, the Director or designated
14 entity shall include—

15 (A) an alternative reference to an auto-
16 mated system that is suitable for assessing,
17 through an objective test procedure, the compli-
18 ance of a dedicated highly automated vehicle, or
19 of a highly automated vehicle operating in auto-
20 mated mode, with the safety standard; or

21 (B) a determination that—

22 (i) the relevant regulatory text applies
23 to features of the motor vehicle equipment
24 that are only necessary for the perform-

1 ance of a dynamic driving task by a human
2 driver; and

3 (ii) no alternative reference to an
4 automated system is practicable.

5 (2) CONDITIONS.—In carrying out paragraph
6 (1), the Director or designated entity—

7 (A) shall ensure that all requirements re-
8 main objective and practicable;

9 (B) may not modify the purpose of any
10 safety standard; and

11 (C) may specify different references for—

12 (i) dedicated highly automated vehi-
13 cles that are intended for human occu-
14 pancy; and

15 (ii) dedicated highly automated vehi-
16 cles that are not designed, intended, or
17 marketed for human occupancy.

18 (d) RULEMAKING.—

19 (1) COMMENCEMENT.—Not later than 90 days
20 after the date on which the Director or designated
21 entity submits the report under subsection (b), the
22 Secretary shall commence a rulemaking proceeding
23 to incorporate the report by reference into the rel-
24 evant safety standards, except as provided in para-
25 graph (3).

1 (2) FINAL RULE.—Not later than 1 year after
2 the Director or other entity submits the report
3 under subsection (b), the Secretary shall issue a
4 final rule to incorporate the report by reference into
5 the relevant safety standards, except as provided in
6 paragraph (3).

7 (3) ALTERNATIVE TEXT.—If the Secretary de-
8 termines that one or more of the revisions to a regu-
9 lation contained in the report submitted under sub-
10 section (b) is not objective, is not practicable, or
11 does not meet the need for motor vehicle safety, the
12 Secretary shall incorporate alternative regulatory
13 text.

14 (4) INCORPORATION BY REFERENCE.—If the
15 Secretary does not complete the rulemaking pro-
16 ceeding under this subsection within 1 year after the
17 submission of the report under subsection (b), the
18 revisions to regulations contained in such report
19 shall be incorporated by reference into the relevant
20 safety standards.

21 (c) SAVINGS PROVISION.—Nothing in this section
22 may be construed to prohibit the Secretary from maintain-
23 ing different test procedures for highly automated vehicles
24 that retain the capability to be operated by a human driver

1 when such vehicles are not operating in an automated
2 mode.

3 **SEC. 5. HIGHLY AUTOMATED VEHICLES TESTING.**

4 Section 30112(b) of title 49, United States Code, is
5 amended—

6 (1) in paragraph (9), by striking “or” at the
7 end;

8 (2) in paragraph (10)—

9 (A) in the matter preceding subparagraph
10 (A), by inserting “(except for a highly auto-
11 mated vehicle)” after “the introduction of a
12 motor vehicle”; and

13 (B) in subparagraph (C), by striking the
14 period at the end and inserting “; or”; and

15 (3) by adding at the end the following:

16 “(11) the introduction of a motor vehicle into
17 interstate commerce solely for the purposes of test-
18 ing, evaluation, or demonstration of a highly auto-
19 mated vehicle or automated driving system if—

20 “(A) the testing, evaluation, or demonstra-
21 tion of the vehicle is only conducted by employ-
22 ees, agents, or fleet management contractors of
23 the manufacturer of the highly automated vehi-
24 cle, the automated driving system, or any com-
25 ponent thereof;

1 “(B) such manufacturer agrees not to sell,
2 lease, or offer for sale or lease, the vehicle or
3 system at the conclusion of the testing, evalua-
4 tion, or demonstration; and

5 “(C) such manufacturer has submitted ap-
6 propriate manufacturer identification informa-
7 tion that is similar to information submitted by
8 manufacturers subject to a Federal motor vehi-
9 cle safety standard under part 566 of title 49,
10 Code of Federal Regulations, before the com-
11 mencement of such testing or evaluation.”.

12 **SEC. 6. HIGHLY AUTOMATED VEHICLES EXEMPTIONS.**

13 (a) IN GENERAL.—Section 30113 of title 49, United
14 States Code, is amended—

15 (1) in subsection (a)—

16 (A) by striking “this section,” and insert-
17 ing the following: “this section—

18 “(1) the term”;

19 (B) by striking the period at the end and
20 inserting “; and”; and

21 (C) by adding at the end the following:

22 “(2) the term ‘new motor vehicle safety feature’
23 includes any feature that enables a highly automated
24 vehicle or an automated driving system, regardless

1 of whether an exemption has already been granted
2 for a similar feature on another model or models.”;

3 ~~(2)~~ in subsection (b)—

4 (A) by amending paragraph ~~(2)~~ to read as
5 follows:

6 “~~(2)~~ The Secretary may begin a proceeding under
7 this subsection when a manufacturer applies for an exemp-
8 tion or a renewal of an exemption. The Secretary shall
9 publish notice of the application and provide an oppor-
10 tunity to comment. An application for an exemption or
11 for a renewal of an exemption shall be filed at a time and
12 in the way, and contain such information, this section and
13 the Secretary require. The Secretary shall grant or deny
14 an exemption for a highly automated vehicle not later than
15 180 days after receiving an application for such exemption
16 from a manufacturer.”; and

17 (B) in paragraph ~~(3)~~(B)(iv), by inserting
18 “or introducing or delivering into interstate
19 commerce” after “selling”;

20 ~~(3)~~ in subsection (d)—

21 (A) by inserting “(1)” after “ELIGI-
22 BILITY.—”; and

23 (B) by striking the second sentence and in-
24 serting the following:

1 ~~“(2)~~ A manufacturer is eligible for an exemp-
2 tion under clause (ii), (iii), or (iv) of subsection
3 ~~(b)(3)(B)~~ only if the Secretary determines that—

4 ~~“(A)~~ the exemption is for not more than
5 2,500 vehicles to be sold in the United States
6 in any 12-month period; or

7 ~~“(B)~~ the vehicle is a highly automated ve-
8 hicle; and

9 ~~“(i)~~ during the 12-month period be-
10 ginning on the date of the enactment of
11 the AV START Act, the exemption is for
12 not more than 50,000 vehicles to be sold
13 or introduced into interstate commerce in
14 the United States;

15 ~~“(ii)~~ during the 12-month period im-
16 mediately following the period described in
17 clause (i), the exemption is for not more
18 than 75,000 vehicles to be sold or intro-
19 duced into interstate commerce in the
20 United States; and

21 ~~“(iii)~~ during any 12-month period fol-
22 lowing the period described in clause (ii);
23 the exemption is for not more than
24 100,000 vehicles to be sold or introduced

1 into interstate commerce in the United
2 States.

3 “(C) A manufacturer of a highly auto-
4 mated vehicle may petition the Secretary to ex-
5 pand the exemption under paragraph (2)(B) to
6 more than 100,000 vehicles in any 12-month
7 period after the exemption has been in place for
8 5 years.”; and

9 (4) in subsection (e), by inserting “, unless the
10 vehicle is a highly automated vehicle” before the pe-
11 riod at the end.

12 (b) SUNSET.—A manufacturer’s eligibility for an ex-
13 emption from a provision, clause, sentence, or paragraph
14 in a motor vehicle safety standard under section
15 30113(d)(2)(B) of title 49, United States Code, as amend-
16 ed by subsection (a), shall end on the date on which a
17 standard (except for a standard promulgated under sec-
18 tion 4 of this Act) that amends the provision, clause, sen-
19 tence, or paragraph from which an exemption is sought
20 takes effect, with due consideration for any lead time spe-
21 cified for compliance.

22 **SEC. 7. INOPERATIVE CONTROLS.**

23 Section 30122(b) of title 49, United States Code, is
24 amended—

1 (1) by inserting “(1)” before “A manufac-
2 turer”; and

3 (2) by adding at the end the following:

4 “(2) The prohibition under paragraph (1) shall not
5 apply to a manufacturer that intentionally allows a device
6 or element of design installed on or in a motor vehicle or
7 item of equipment in compliance with an applicable motor
8 vehicle safety standard to be temporarily disabled during
9 the time that an automated driving system is performing
10 the entire dynamic driving task.”.

11 **SEC. 8. LEVELS OF DRIVING AUTOMATION.**

12 (a) **USE OF SAE INTERNATIONAL’S TAXONOMY AND**
13 **DEFINITIONS.**—The Secretary shall use the taxonomy and
14 definitions for automated driving systems set forth in SAE
15 International standard J3016, published on September
16 30, 2016, for the various levels of automation for motor
17 vehicles.

18 (b) **REVIEW.**—

19 (1) **IN GENERAL.**—The Secretary—

20 (A) shall review the taxonomy and defini-
21 tions for automated driving systems set forth by
22 SAE International to ensure that such tax-
23 onomy and definitions are clear and objective;
24 and

1 ~~(B)~~ may provide feedback to SAE Inter-
2 national for potential updates.

3 ~~(2) USE OF REVISED STANDARD.—~~

4 ~~(A) DETERMINATION.—~~Not later than 120
5 days after SAE International revises the stand-
6 ard referred to in subsection (a), the Secretary,
7 after publishing notice of the revision in the
8 Federal Register, shall determine whether to
9 adopt the revised standard to identify the var-
10 ious levels of automation for motor vehicles.

11 ~~(B) EFFECT OF DECISION NOT TO ADOPT~~
12 ~~THE REVISED STANDARD.—~~If the Secretary de-
13 cides not to adopt the revised standard—

14 (i) the Secretary shall notify SAE
15 International of the Secretary's decision;
16 and

17 (ii) the definitions referred to in sub-
18 section (a) shall remain in effect.

19 **SEC. 9. SAFETY EVALUATION REPORT.**

20 (a) ~~IN GENERAL.—~~Subchapter I of chapter 301 of
21 title 49, United States Code, is amended by adding at the
22 end the following:

23 **“§ 30107. Highly automated vehicles safety evaluation**
24 **report**

25 ~~“(a) IN GENERAL.—~~

1 “(1) REQUIREMENT.—Each manufacturer in-
2 troducing a new highly automated vehicle or auto-
3 mated driving system into interstate commerce shall
4 provide a safety evaluation report, in accordance
5 with this section, that describes how the manufac-
6 turer is addressing the safety of such vehicle or sys-
7 tem.

8 “(2) SUBMISSION.—Each manufacturer de-
9 scribed in paragraph (1) shall—

10 “(A) submit a report to the Secretary—

11 “(i) upon testing a highly automated
12 vehicle or automated driving system; and

13 “(ii) not later than 90 days before
14 selling, offering for sale, or otherwise com-
15 mercializing a highly automated vehicle or
16 automated driving system; and

17 “(B) annually submit, until the vehicle or
18 system is no longer being sold, offered for sale,
19 or otherwise introduced into interstate com-
20 merce by the manufacturer or until the system
21 is no longer being incorporated into new motor
22 vehicles by the manufacturer, an updated report
23 to the Secretary that—

1 “(i) may disclose that no significant
2 changes were made to the vehicle or sys-
3 tem; and

4 “(ii) shall provide aggregate results of
5 any significant safety deviation from ex-
6 pected performance disclosed in the pre-
7 vious report.

8 “(3) REVIEW.—The Secretary—

9 “(A) shall review each report submitted
10 under paragraph (2); and

11 “(B) may require that the manufacturer
12 submit additional or clarifying information.

13 “(4) LIMITATION.—The Secretary may not con-
14 dition the manufacture, testing, sale, offer for sale,
15 or introduction into interstate commerce of a highly
16 automated vehicle or automated driving system
17 based on a review of a safety evaluation report or
18 additional information submitted under this section.

19 “(b) SAFETY EVALUATION REPORT SUBJECT
20 AREAS.—Each report submitted by a manufacturer under
21 subsection (a) shall describe how the manufacturer is ad-
22 dressing, through a documented assessment, testing, and
23 validation process, each of the subject areas described in
24 paragraphs (1) through (9).

1 “(1) SYSTEM SAFETY.—The avoidance of un-
2 reasonable risks to safety, including—

3 “(A) assurance that systems, including
4 hardware and software, perform intended func-
5 tions;

6 “(B) the mitigation of unreasonable risks
7 to safety caused by a malfunction of the auto-
8 mated driving system; and

9 “(C) sense of objects, motorcycleists,
10 bicyclists, pedestrians, and animals in or cross-
11 ing the path of travel through the automated
12 driving system.

13 “(2) DATA RECORDING.—The collection by the
14 vehicle of automated driving system performance in-
15 formation and incident and crash data—

16 “(A) to record the occurrence of malfunc-
17 tions, disengagements, degradations, or failures;

18 “(B) to aid in the analysis of the cause of
19 any issues described in subparagraph (A);

20 “(C) to enable efforts to work with other
21 entities to address data recording and sharing;
22 and

23 “(D) with respect to event data recorder
24 information, that complies with the collection

1 and sharing requirements under the FAST Act
2 (Public Law 114–94).

3 “(3) CYBERSECURITY.—The minimization of
4 cybersecurity risks to safety and the exchange of in-
5 formation about any vulnerabilities discovered from
6 field incidents, internal testing, or external security
7 research.

8 “(4) HUMAN-MACHINE INTERFACE.—

9 “(A) The methods of informing the human
10 driver or operator about whether the automated
11 driving system is functioning properly.

12 “(B) For a Level 3 vehicle, the methods to
13 address driver reengagement.

14 “(C) The use of a human-machine inter-
15 face by people with disabilities through visual,
16 auditory, or haptic displays, or other methods.

17 “(5) CRASHWORTHINESS.—Practicable protec-
18 tion for all occupants given any planned seating po-
19 sitions or interior configurations.

20 “(6) CAPABILITIES.—The capabilities and limi-
21 tations of the highly automated vehicle or automated
22 driving system.

23 “(7) POST-CRASH BEHAVIOR.—The post-crash
24 behavior of the highly automated vehicle or auto-

1 mated driving system if sensors or critical systems
2 are damaged in a crash.

3 “(8) ACCOUNT FOR APPLICABLE LAWS.—The
4 account of applicable traffic laws and rules of the
5 road, based on operational design domain, in the de-
6 velopment of a highly automated vehicle or auto-
7 mated driving system.

8 “(9) AUTOMATION FUNCTION.—

9 “(A) The expected operational design do-
10 main in which the highly automated vehicle or
11 automated driving system is designed to oper-
12 ate, including any roadway and infrastructure
13 assets required for the operation of the highly
14 automated vehicle or automated driving system,
15 such as roadside equipment, pavement mark-
16 ings, signage, and traffic signals, and how it
17 will respond if that operational design domain
18 unexpectedly changes.

19 “(B) The automated driving system’s ex-
20 pected object and event detection and response
21 capabilities, including behavioral competencies
22 and crash avoidance capability.

23 “(C) The ability of the highly automated
24 vehicle or automated driving system to transi-

1 tion to a minimal risk condition when a mal-
2 function is encountered.

3 “(D) The performance of the vehicle
4 through the manufacturer’s development and
5 implementation of tests, including simulation,
6 test track, and on-road testing.

7 “(e) CERTIFICATION OF INAPPLICABLE CAT-
8 EGORIES.—A manufacturer that is solely testing a vehicle
9 or system may certify that one or more of the categories
10 set forth in subsection (b) do not apply.

11 “(d) PUBLICLY AVAILABLE.—The Secretary shall
12 make any report submitted by a manufacturer under this
13 section publicly available as soon as practicable, except the
14 Secretary may not make publicly available any information
15 relating to a trade secret or confidential business informa-
16 tion, or which is privileged. The manufacturer may submit
17 information related to a trade secret or confidential busi-
18 ness information separately from the report.

19 “(e) OFFICIAL SIGNATURE.—Each report submitted
20 by an entity under this section shall be reviewed by a sen-
21 ior official of the entity who—

22 “(1) is knowledgeable about the information
23 contained in the report; and

1 “(2) shall certify that, based on the official’s
2 knowledge, the report does not contain any untrue
3 statement of a material fact.

4 “(f) TERMINATION OF OBLIGATION TO DISCLOSE IN-
5 FORMATION.—

6 “(1) IN GENERAL.—A manufacturer’s obliga-
7 tion to provide information on a specific category
8 under subsection (b) shall end on the effective date
9 of a motor vehicle safety standard applicable to the
10 same aspect of vehicle or system performance as is
11 covered by the category, with due consideration for
12 any lead time specified for compliance.

13 “(2) EFFECT OF NEW STANDARD.—In adopting
14 any standard applicable to highly automated vehicle
15 performance, the Secretary shall—

16 “(A) identify the category under subsection
17 (b) to which the standard relates, if any; and

18 “(B) specify what information is no longer
19 required to be included in the report as a result
20 of the new standard.

21 “(g) RULE OF CONSTRUCTION.—

22 “(1) SUBMISSIONS.—A manufacturer may sub-
23 mit a safety evaluation report for vehicles introduced
24 into interstate commerce before the date of the en-
25 actment of the AV START Act.

1 “(2) SAVINGS PROVISIONS.—Nothing in this
2 section may be construed to amend, limit the au-
3 thority, or prohibit the use of the information in-
4 cluded in the report under chapter 301 of title 49,
5 United States Code.”.

6 (b) CLERICAL AMENDMENT.—The analysis for chap-
7 ter 301 of title 49, United States Code, is amended by
8 inserting after the item relating to section 30106 the fol-
9 lowing:

“30107. Highly automated vehicles safety evaluation report.”.

10 (c) EFFECTIVE DATE.—The amendments made by
11 this section shall take effect on the date that is 90 days
12 after the date of the enactment of this Act.

13 **SEC. 10. HIGHLY AUTOMATED VEHICLES TECHNICAL COM-**
14 **MITTEE.**

15 (a) ESTABLISHMENT.—Not later than 180 days after
16 the date of the enactment of this Act, the Secretary shall
17 establish a Highly Automated Vehicles Technical Com-
18 mittee (referred to in this section as the “Committee”)
19 to provide a forum for stakeholders to discuss, prioritize,
20 and make technical recommendations for highly auto-
21 mated vehicle and automated driving system safety.

22 (b) MEMBERSHIP.—

23 (1) VOTING MEMBERS.—The Secretary—

24 (A) shall appoint 15 voting members to the
25 Committee who—

1 (i) are specially qualified to serve on
2 the Committee because of their technical
3 knowledge of automated driving systems,
4 vehicle-to-vehicle infrastructure systems, or
5 the impact of such systems on Federal
6 motor vehicle safety standards; and

7 (ii) shall include representatives of
8 SAE International, automated vehicle
9 proving grounds designated by the Depart-
10 ment of Transportation, highly automated
11 vehicle and automated driving system man-
12 ufacturers, safety organizations, State and
13 local government agencies, and other orga-
14 nizations directly or indirectly impacted by
15 NHTSA regulations; and

16 (B) may appoint new members to the
17 Committee at any time.

18 ~~(2) COMPENSATION.—~~Members of the Com-
19 mittee shall serve without compensation.

20 ~~(3) CHAIRPERSON.—~~The Secretary, or the Sec-
21 retary's designee, shall act as Chairperson of the
22 Committee, but will not have voting rights, except to
23 break a tie.

24 ~~(c) DUTIES.—~~

1 (1) RECOMMENDATIONS.—The Committee shall
2 provide consensus-based recommendations to the
3 Secretary on rulemaking, policy, and guidance re-
4 garding highly automated vehicle safety, including—

5 (A) the identification and creation of per-
6 formance standards; and

7 (B) the harmonization of national highly
8 automated vehicle safety standards with inter-
9 national standards.

10 (2) SCOPE.—The Committee shall study issues
11 relating to highly automated vehicles, including—

12 (A) system safety;

13 (B) automated steering and braking;

14 (C) crashworthiness for vehicles with un-
15 conventional seating positions or vehicles not in-
16 tended for human occupancy;

17 (D) event data recording and data access
18 and sharing;

19 (E) accessibility for people with physical,
20 sensory, or other disabilities, including for those
21 who rely on mobility devices;

22 (F) potential conflicts with existing Fed-
23 eral motor vehicle safety standards; and

24 (G) any other issue the Secretary considers
25 appropriate.

1 (3) SUPPORT.—The NHTSA Office of Rule-
 2 making and the NHTSA Office of Vehicle Safety
 3 Research shall provide support services to the Com-
 4 mittee.

5 (4) MEETINGS.—The Committee shall meet not
 6 less frequently than 4 times per year. Committee
 7 meetings shall be open to the public, except in cir-
 8 cumstances in which a meeting is likely to discuss—

9 (A) internal personnel rules and practices
 10 of the NHTSA;

11 (B) matters specifically exempted from dis-
 12 closure by statute;

13 (C) trade secrets or confidential or privi-
 14 leged business information;

15 (D) matters involving criminal accusation
 16 or official censure;

17 (E) information of a personal nature that,
 18 if disclosed, would constitute an unwarranted
 19 invasion of personal privacy; or

20 (F) investigatory records that might inter-
 21 fere with enforcement proceedings.

22 (5) WORKING GROUPS.—

23 (A) IN GENERAL.—The Committee may
 24 establish temporary working groups, as nec-
 25 essary, to address specific issues. Each working

1 group shall include at least 1 member who rep-
2 represents a manufacturer of highly automated ve-
3 hicles or automated driving systems and other
4 individuals who are subject matter experts on
5 the issue before the working group.

6 (B) ~~DISABILITY ACCESS.~~—The Committee
7 shall establish a working group to develop vol-
8 untary best practices regarding highly auto-
9 mated vehicle accessibility for people with phys-
10 ical, sensory, or other disabilities, including for
11 those who rely on mobility devices. Such best
12 practices shall address the physical accessibility
13 of highly automated vehicles and human-ma-
14 chine interface accessibility through visual, au-
15 ditory, or haptic displays or other methods. The
16 working group shall include representatives
17 from national organizations representing indi-
18 viduals with disabilities.

19 (d) ~~RECOMMENDATIONS FOR HIGHLY AUTOMATED~~
20 ~~VEHICLES.~~—

21 (1) ~~IN GENERAL.~~—On a periodic basis, the
22 Committee shall release recommendations on vol-
23 untary standards regarding highly automated vehicle
24 safety.

1 (2) WORK PLAN.—Not later than 180 days
2 after the Committee is established under subsection
3 (a), the Committee shall submit a work plan to the
4 Secretary for carrying out this section.

5 (3) REPORT.—Not later than 5 years after the
6 date of the enactment of this Act, the Committee
7 shall submit a report containing recommendations of
8 consensus-based, feasible, and objective standards to
9 the Secretary for potential rulemaking governing
10 highly automated vehicles that meet the need for
11 motor vehicle safety.

12 (c) CONSULTATION AND PUBLICATION OF RE-
13 PORTS.—

14 (1) IN GENERAL.—The Secretary shall consult
15 with the Committee, as appropriate, on highly auto-
16 mated vehicle safety matters, including the develop-
17 ment and implementation of relevant policies, pro-
18 grams, and rulemaking.

19 (2) RECOMMENDED AGENDA.—The Secretary
20 shall regularly provide recommendations to the Com-
21 mittee regarding the agenda of the Committee and
22 areas in which Committee activity would benefit and
23 complement Department of Transportation efforts.

1 (3) **REPORTS.**—The Secretary shall make any
2 report or recommendation developed under this sec-
3 tion publicly available.

4 (f) **FACA.**—The Committee shall not be subject to
5 the requirements under the Federal Advisory Committee
6 Act (5 U.S.C. App.).

7 (g) **TERMINATION.**—The Committee shall terminate
8 upon the submission of the final report required under
9 subsection (d)(3) unless the Secretary determines that the
10 Committee should continue.

11 **SEC. 11. HIGHLY AUTOMATED VEHICLES RULEMAKING.**

12 (a) **IN GENERAL.**—The Secretary shall review and
13 seek public comment on the recommendations for stand-
14 ards made by the Highly Automated Vehicles Technical
15 Committee under section 10(d)(3).

16 (b) **DETERMINATION.**—Not later than 1 year after
17 the receipt of the recommendations referred to in sub-
18 section (a), the Secretary shall—

19 (1) make a determination whether to approve
20 one or more of the recommendations, based on an
21 identified need for motor vehicle safety; and

22 (2) begin a rulemaking proceeding on the rec-
23 ommendations approved pursuant to paragraph (1)
24 on the safety of highly automated vehicles.

1 (c) **RULE OF CONSTRUCTION.**—Nothing in this sec-
2 tion may be construed to restrict the authority of the Sec-
3 retary under section 30111 of title 49, United States
4 Code. Any Federal motor vehicle safety standard adopted
5 pursuant to this section shall meet the requirements under
6 such section 30111.

7 **SEC. 12. CONSUMER EDUCATION.**

8 (a) **ESTABLISHMENT.**—Not later than 180 days after
9 the date of the enactment of this Act, the Secretary shall
10 establish a working group on responsible education efforts
11 for advanced driver assist systems and automated driving
12 systems.

13 (b) **DUTIES.**—The working group established under
14 subsection (a) shall—

15 (1) identify recommended education and re-
16 sponsible marketing strategies that may be volun-
17 tarily employed by industry to inform consumers, ve-
18 hicle owners and operators, and other stakeholders
19 about advanced driver assistance systems and auto-
20 mated driving systems as they become available or
21 are soon to be introduced into interstate commerce;
22 and

23 (2) submit a report containing the findings and
24 recommendations of the working group to Congress
25 and making such report available to the public.

1 (e) ~~CONSIDERATIONS.—~~The working group shall con-
2 sider topics pertaining to—

3 (1) ~~intent, capabilities, and limitations of ad-~~
4 ~~vanced driver assistance systems and automated~~
5 ~~driving systems;~~

6 (2) ~~engagement and disengagement methods,~~
7 ~~including methods to address driver engagement in~~
8 ~~lower levels of automation;~~

9 (3) ~~human-machine interfaces;~~

10 (4) ~~emergency fallback scenarios;~~

11 (5) ~~operational boundary responsibilities;~~

12 (6) ~~response in the event of a crash or system~~
13 ~~failure;~~

14 (7) ~~potential mechanisms that could change~~
15 ~~function behavior in service; and~~

16 (8) ~~consistent nomenclature and taxonomy for~~
17 ~~safety features and systems.~~

18 (d) ~~MEMBERSHIP.—~~

19 (1) ~~IN GENERAL.—~~The Secretary shall appoint,
20 as members of the working group, individuals with
21 expertise in automated driving systems and driver
22 assistance systems, including—

23 (A) ~~representatives of—~~

24 (i) ~~motor vehicle manufacturers;~~

- 1 (ii) manufacturers of automated driv-
2 ing systems and driver assistance systems
3 (including components);
4 (iii) motor vehicle dealers;
5 (iv) motor vehicle owners and opera-
6 tors, including fleet managers, vehicle rent-
7 al companies, and transportation network
8 companies;
9 (v) consumers or consumer advocacy
10 groups;
11 (vi) automated vehicle proving
12 grounds designated by the Department of
13 Transportation;
14 (vii) public health organizations;
15 (viii) marketing professionals;
16 (ix) entities with national experience
17 in consumer education; and
18 (x) enabling technology companies;
19 and
20 (B) any other members the Secretary con-
21 siders appropriate.
- 22 (2) COMPENSATION.—Members of the working
23 group shall serve without compensation.
- 24 (3) CONSULTATION.—The Secretary shall con-
25 sult with the Federal Trade Commission about the

1 recommendations of the working group, as appro-
 2 priate.

3 (c) **TERMINATION.**—The working group established
 4 under this section shall terminate on the date that is 2
 5 years after the date of the enactment of this Act.

6 **SEC. 13. TRAFFIC SAFETY AND LAW ENFORCEMENT.**

7 (a) **RESEARCH.**—The Secretary, in coordination with
 8 State and local transportation and highway safety entities,
 9 State and local law enforcement entities, and other rel-
 10 evant parties, shall research the traffic safety implications
 11 of highly automated vehicles, including—

12 (1) the intersection of conventional and highly
 13 automated vehicles; and

14 (2) law enforcement impacts, including—

15 (A) enforcing applicable laws;

16 (B) identifying whether a vehicle was in
 17 automated mode at the time of a crash;

18 (C) lawfully accessing event data informa-
 19 tion; and

20 (D) determining how a highly automated
 21 vehicle should respond to law enforcement.

22 (b) **COORDINATION OF SAFETY.**—The Secretary, in
 23 coordination with State, local, and law enforcement agen-
 24 cies, may develop a process for State and local entities
 25 to provide information, on a voluntary basis, to the Sec-

1 retary to assist the Department of Transportation in iden-
 2 tifying defects related to motor vehicle safety of highly
 3 automated vehicles.

4 (c) CRASH DATA.—Not later than 3 years after the
 5 date of the enactment of this Act, the Secretary shall re-
 6 vise the crash investigation data collection system to in-
 7 clude the collection of crash report data elements that dis-
 8 tinguish whether the vehicle involved in a crash is a highly
 9 automated vehicle, including the level of automation and
 10 whether the vehicle was in automated mode at the time
 11 of a crash.

12 **SEC. 14. CYBERSECURITY.**

13 (a) IN GENERAL.—Subchapter I of chapter 301 of
 14 title 49, United States Code, as amended by section 9,
 15 is further amended by adding at the end the following:

16 **“§ 30108. Cybersecurity risks to the safety of highly**
 17 **automated vehicles**

18 “(a) DEFINITIONS.—In this section:

19 “(1) CYBERSECURITY INCIDENT.—The term
 20 ‘cybersecurity incident’ has the meaning given the
 21 term ‘incident’ in section 227(a) of the Homeland
 22 Security Act of 2002 (6 U.S.C. 148(a)).

23 “(2) CYBERSECURITY RISK.—The term ‘cyber-
 24 security risk’ has the meaning given the term in sec-

1 tion 227(a) of the Homeland Security Act of 2002
2 (6 U.S.C. 148(a)).

3 “(3) CYBERSECURITY VULNERABILITY.—The
4 term ‘cybersecurity vulnerability’ has the meaning
5 given the term ‘security vulnerability’ in section 102
6 of the Cybersecurity Information Sharing Act of
7 2015 (6 U.S.C. 1501).

8 “(b) CYBERSECURITY PLAN.—

9 “(1) IN GENERAL.—Each manufacturer of a
10 highly automated vehicle or automated driving sys-
11 tem shall develop, maintain, and execute a written
12 plan for identifying and reducing cybersecurity risks
13 to the motor vehicle safety of such vehicles and sys-
14 tems.

15 “(2) REQUIREMENTS.—The plan required
16 under paragraph (1) shall include a process for—

17 “(A) the risk-based prioritized identifica-
18 tion and protection of safety-critical vehicle con-
19 trol systems and the broader transportation
20 ecosystem, as applicable;

21 “(B) the efficient detection and response
22 to potential vehicle cybersecurity incidents in
23 the field;

24 “(C) facilitating expeditious recovery from
25 incidents as they occur;

1 “(D) the institutionalization of methods
2 for the accelerated adoption of lessons learned
3 across industry through voluntary exchange of
4 information pertaining to cybersecurity inci-
5 dents, threats, and vulnerabilities, including the
6 consideration of a coordinated cybersecurity
7 vulnerability disclosure policy or other related
8 practices for collaboration with third-party cy-
9 bersecurity researchers;

10 “(E) the identification of the point of con-
11 tact of the manufacturer with responsibility for
12 the management of cybersecurity;

13 “(F) the use of segmentation and isolation
14 techniques in vehicle architecture design, as ap-
15 propriate; and

16 “(G) supporting voluntary efforts by indus-
17 try and standards-setting organizations to de-
18 velop and identify consistent standards and
19 guidelines relating to vehicle cybersecurity, con-
20 sistent, and to the extent appropriate, with the
21 cybersecurity risk management activities de-
22 scribed in section 2(e) of the National Institute
23 of Standards and Technology Act (15 U.S.C.
24 272(e)).

1 “(3) INSPECTION.—The Secretary may inspect
 2 any cybersecurity plan developed by a manufacturer
 3 under this subsection to enable the Secretary to de-
 4 cide whether the manufacturer has complied, or is
 5 complying, with this chapter or a regulation pre-
 6 scribed or order issued pursuant to this chapter.

7 “(4) PROTECTIONS FOR DISCLOSURE.—The
 8 Secretary may, by notice and comment rulemaking,
 9 establish a requirement that manufacturers subject
 10 to subsection (b) develop a summary of its plan that
 11 is suitable for public disclosure, as appropriate.

12 “(e) COORDINATED CYBERSECURITY VULNER-
 13 ABILITY DISCLOSURE.—The Secretary may work coopera-
 14 tively with manufacturers of highly automated vehicles
 15 and automated driving systems to incentivize manufactur-
 16 ers to voluntarily adopt a coordinated vulnerability disclo-
 17 sure policy and practice in which a security researcher pri-
 18 vately discloses information related to a discovered vulner-
 19 ability to a manufacturer and allows the manufacturer
 20 time to confirm and remediate the vulnerability—

21 “(1) so that manufacturers build relationships
 22 with security researchers to mitigate cybersecurity
 23 risks; and

24 “(2) to discover and mitigate cybersecurity
 25 vulnerabilities in highly automated vehicles or auto-

1 mated driving systems that present a risk to motor
 2 vehicle safety (as defined in section 30102 of title
 3 49, United States Code).

4 “(d) COORDINATION.—All Federal agencies under-
 5 taking research on cybersecurity risks associated with
 6 highly automated vehicles shall coordinate with the Sec-
 7 retary on their findings.”.

8 (b) CLERICAL AMENDMENT.—The analysis for chap-
 9 ter 301 of title 49, United States Code, is amended by
 10 inserting after the item relating to section 30107, as
 11 added by section 9, the following:

“30108. Cybersecurity risks to the safety of highly automated vehicles.”.

12 (c) EFFECTIVE DATE.—The amendments made by
 13 this section shall take effect on the date that is 18 months
 14 after the date of the enactment of this Act.

15 **SEC. 15. SAVINGS PROVISION.**

16 Nothing in this Act may be construed to alter any
 17 existing authority under subtitle VI of title 49, United
 18 States Code, relating to motor vehicles with a gross vehicle
 19 weight of 10,001 pounds or more.

20 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

21 (a) *SHORT TITLE.*—*This Act may be cited as the*
 22 *“American Vision for Safer Transportation through Ad-*
 23 *vancement of Revolutionary Technologies Act” or the “AV*
 24 *START Act”.*

1 (b) *TABLE OF CONTENTS.*—*The table of contents of this*
 2 *Act is as follows:*

- Sec. 1. Short title; table of contents.*
- Sec. 2. Definitions.*
- Sec. 3. Relationship to other laws.*
- Sec. 4. Expedited resolution of highly automated vehicles conflicts with standards.*
- Sec. 5. Highly automated vehicles testing.*
- Sec. 6. Highly automated vehicles exemptions.*
- Sec. 7. Inoperative controls.*
- Sec. 8. Levels of driving automation.*
- Sec. 9. Safety evaluation report.*
- Sec. 10. Highly Automated Vehicles Technical Committee.*
- Sec. 11. Highly automated vehicles rulemaking.*
- Sec. 12. Consumer education.*
- Sec. 13. Traffic safety and law enforcement.*
- Sec. 14. Cybersecurity.*
- Sec. 15. HAV Data Access Advisory Committee.*
- Sec. 16. Cybersecurity consumer education information.*
- Sec. 17. Provision of cybersecurity resource information.*
- Sec. 18. Highly automated vehicle study.*
- Sec. 19. Study on encouraging manufacturing in the United States of automated driving equipment and intelligent transportation solutions.*
- Sec. 20. Privacy protections for users of motor vehicles.*
- Sec. 21. Child safety.*
- Sec. 22. Savings provision.*

3 **SEC. 2. DEFINITIONS.**

4 (a) *IN GENERAL.*—*In this Act:*

5 (1) *AUTOMATED DRIVING SYSTEM; DEDICATED*
 6 *HIGHLY AUTOMATED VEHICLE; HIGHLY AUTOMATED*
 7 *VEHICLE; MANUFACTURER; MOTOR VEHICLE; MOTOR*
 8 *VEHICLE EQUIPMENT.*—*The terms “automated driv-*
 9 *ing system”, “dedicated highly automated vehicle”,*
 10 *“highly automated vehicle”, “manufacturer”, “motor*
 11 *vehicle”, and “motor vehicle equipment” have the*
 12 *meanings given such terms in section 30102 of title*
 13 *49, United States Code, as amended by subsection (b).*

1 (2) *NHTSA.*—*The term “NHTSA” means the*
2 *National Highway Traffic Safety Administration.*

3 (3) *SECRETARY.*—*The term “Secretary” means*
4 *the Secretary of Transportation.*

5 (b) *MOTOR VEHICLE SAFETY CHAPTER.*—*Section*
6 *30102(a) of title 49, United States Code, is amended—*

7 (1) *by redesignating paragraphs (5) through (13)*
8 *as paragraphs (8) through (16) respectively;*

9 (2) *by redesignating paragraphs (3) and (4) as*
10 *paragraphs (5) and (6), respectively;*

11 (3) *by redesignating paragraphs (1) and (2) as*
12 *paragraphs (2) and (3), respectively;*

13 (4) *by inserting before paragraph (2), as redesign-*
14 *ated, the following:*

15 “(1) *AUTOMATED DRIVING SYSTEM.*—*In describ-*
16 *ing a Level 3, 4, or 5 automated driving system (as*
17 *defined by SAE International standard J3016, pub-*
18 *lished on September 30, 2016, or subsequently adopt-*
19 *ed by the Secretary), the term ‘automated driving sys-*
20 *tem’ means the hardware and software that is collec-*
21 *tively capable of performing the entire dynamic driv-*
22 *ing task on a sustained basis, regardless of whether*
23 *the system is limited to a specific operational design*
24 *domain.”;*

1 (5) by inserting after paragraph (3), as redesign-
2 nated, the following:

3 “(4) *DEDICATED HIGHLY AUTOMATED VEHI-*
4 *CLE.—The term ‘dedicated highly automated vehicle’*
5 *means a highly automated vehicle designed to be oper-*
6 *ated exclusively (as defined by the SAE International*
7 *standard J3016, published on September 30, 2016) by*
8 *a Level 4 or 5 automated driving system (as defined*
9 *by the SAE International standard J3016, published*
10 *on September 30, 2016, or subsequently adopted by*
11 *the Secretary) for all trips.”; and*

12 (6) by inserting after paragraph (6), as redesign-
13 nated, the following:

14 “(7) *HIGHLY AUTOMATED VEHICLE.—The term*
15 *‘highly automated vehicle’ means a motor vehicle with*
16 *a gross vehicle weight of 10,000 pounds or less that*
17 *is equipped with a Level 3, 4, or 5 automated driving*
18 *system (as defined by SAE International standard*
19 *J3016, published on September 30, 2016, or subse-*
20 *quently adopted by the Secretary).”.*

21 **SEC. 3. RELATIONSHIP TO OTHER LAWS.**

22 (a) *VEHICLE PREEMPTION.—Section 30103(b) of title*
23 *49, United States Code, is amended by adding at the end*
24 *the following:*

25 “(3) *HIGHLY AUTOMATED VEHICLES.—*

1 “(A) No State or political subdivision of a
2 State may adopt, maintain, or enforce any law,
3 rule, or standard regulating the design, construc-
4 tion, or performance of a highly automated vehi-
5 cle or automated driving system with respect to
6 any of the safety evaluation report subject areas
7 described in section 30107(b).

8 “(B) This paragraph shall cease to have ef-
9 fect with respect to any particular subject matter
10 area on the effective date of a standard applica-
11 ble to the same aspect of vehicle performance as
12 identified in section 30107(f).

13 “(C) Nothing in this paragraph may be
14 construed to prohibit a State or political sub-
15 division of a State from maintaining, enforcing,
16 prescribing, or continuing in effect any law or
17 regulation regarding the sale, distribution, re-
18 pair, or service of highly automated vehicles,
19 automated driving systems, or components of
20 automated driving systems by a dealer, manu-
21 facturer, or distributor.”.

22 (b) *LIABILITY*.—Section 30103(e) of title 49, United
23 States Code, is amended to read as follows:

24 “(e) *STATE LAW LIABILITY*.—

1 “(1) *Compliance with a motor vehicle safety*
2 *standard prescribed under this chapter does not ex-*
3 *empt a person from liability at common law.*

4 “(2) *Subject to subsection (b)(3)(A), nothing in*
5 *subsection (b)(3) shall exempt a person from liability*
6 *at common law or under a State statute authorizing*
7 *a civil remedy for damages or other monetary relief.”.*

8 (c) *LICENSING.—A State may not issue a motor vehi-*
9 *cle operator’s license for the operation or use of a dedicated*
10 *highly automated vehicle in a manner that discriminates*
11 *on the basis of disability (as defined in section 3 of the*
12 *Americans with Disabilities Act of 1990 (42 U.S.C.*
13 *12102)).*

14 **SEC. 4. EXPEDITED RESOLUTION OF HIGHLY AUTOMATED**
15 **VEHICLES CONFLICTS WITH STANDARDS.**

16 (a) *DEFINITIONS.—In this section:*

17 (1) *DIRECTOR.—The term “Director” means the*
18 *Director of the John A. Volpe National Transpor-*
19 *tation Systems Center of the Department of Transpor-*
20 *tation.*

21 (2) *DYNAMIC DRIVING TASK.—The term “dy-*
22 *namic driving task” has the meaning given the term*
23 *by SAE International standard J3016, published on*
24 *September 30, 2016.*

1 (3) *SAFETY STANDARD.*—*The term “safety stand-*
2 *ard” means a Federal motor vehicle safety standard*
3 *prescribed under chapter 301 of title 49, United*
4 *States Code.*

5 (b) *REFERENCES TO HUMAN DRIVERS.*—*Not later*
6 *than 180 days after the date of the enactment of this Act,*
7 *the Director or other designated entity, after consultation*
8 *with stakeholders, shall prepare and submit to the Secretary*
9 *a report that identifies each provision, requirement, speci-*
10 *fication, or procedure in a safety standard with a reference*
11 *to features of the equipment that—*

12 (1) *are necessary only for the performance of the*
13 *dynamic driving task by a human driver;*

14 (2) *specify a location or reference point within*
15 *a vehicle by reference to the position of a human driv-*
16 *er; or*

17 (3) *serve a purpose of providing information to,*
18 *or receiving input from, a human driver engaged in*
19 *performing the dynamic driving task.*

20 (c) *SUBSTITUTION OF CONFORMING REFERENCES TO*
21 *AUTOMATED SYSTEMS.*—

22 (1) *IN GENERAL.*—*In each provision of the re-*
23 *port prepared under subsection (b) identifying the*
24 *text of a regulation from a safety standard, a test*
25 *procedure, or a method for determining compliance*

1 *with a safety standard, the Director or designated en-*
2 *tity shall include—*

3 *(A) an alternative reference to an auto-*
4 *ated system that is suitable for assessing,*
5 *through an objective test procedure, the compli-*
6 *ance of a dedicated highly automated vehicle, or*
7 *of a highly automated vehicle operating in auto-*
8 *mated mode, with the safety standard; or*

9 *(B) a determination that—*

10 *(i) the relevant regulatory text applies*
11 *to features of the motor vehicle equipment*
12 *that are only necessary for the performance*
13 *of a dynamic driving task by a human*
14 *driver; and*

15 *(ii) no alternative reference to an auto-*
16 *mated system is practicable.*

17 *(2) CONDITIONS.—In carrying out paragraph*
18 *(1), the Director or designated entity—*

19 *(A) shall ensure that all requirements re-*
20 *main objective and practicable;*

21 *(B) may not modify the purpose of any*
22 *safety standard; and*

23 *(C) may specify different references for—*

1 (i) *dedicated highly automated vehicles*
2 *that are intended for human occupancy;*
3 *and*

4 (ii) *dedicated highly automated vehi-*
5 *cles that are not designed, intended, or mar-*
6 *keted for human occupancy.*

7 (d) *RULEMAKING.—*

8 (1) *COMMENCEMENT.—Not later than 90 days*
9 *after the date on which the Director or designated en-*
10 *tity submits the report under subsection (b), the Sec-*
11 *retary shall commence a rulemaking proceeding to in-*
12 *corporate the report by reference into the relevant*
13 *safety standards, except as provided in paragraph*
14 (3).

15 (2) *FINAL RULE.—Not later than 1 year after*
16 *the Director or other entity submits the report under*
17 *subsection (b), the Secretary shall issue a final rule*
18 *to incorporate the report by reference into the relevant*
19 *safety standards, except as provided in paragraph*
20 (3).

21 (3) *ALTERNATIVE TEXT.—If the Secretary deter-*
22 *mines that one or more of the revisions to a regula-*
23 *tion contained in the report submitted under sub-*
24 *section (b) is not objective, is not practicable, or does*

1 *not meet the need for motor vehicle safety, the Sec-*
2 *retary shall incorporate alternative regulatory text.*

3 (4) *INCORPORATION BY REFERENCE.—If the Sec-*
4 *retary does not complete the rulemaking proceeding*
5 *under this subsection within 1 year after the submis-*
6 *sion of the report under subsection (b), the revisions*
7 *to regulations contained in such report shall be incor-*
8 *porated by reference into the relevant safety stand-*
9 *ards.*

10 (e) *SAVINGS PROVISION.—Nothing in this section may*
11 *be construed to prohibit the Secretary from maintaining*
12 *different test procedures for highly automated vehicles that*
13 *retain the capability to be operated by a human driver*
14 *when such vehicles are not operating in an automated*
15 *mode.*

16 **SEC. 5. HIGHLY AUTOMATED VEHICLES TESTING.**

17 *Section 30112(b) of title 49, United States Code, is*
18 *amended—*

19 (1) *in paragraph (9), by striking “or” at the*
20 *end;*

21 (2) *in paragraph (10)—*

22 (A) *in the matter preceding subparagraph*
23 *(A), by inserting “(except for a highly automated*
24 *vehicle)” after “the introduction of a motor vehi-*
25 *cle”;* and

1 (B) in subparagraph (C), by striking the
2 period at the end and inserting “; or”; and

3 (3) by adding at the end the following:

4 “(11) the introduction of a motor vehicle into
5 interstate commerce solely for the purposes of testing,
6 evaluation, or demonstration of a highly automated
7 vehicle or automated driving system if—

8 “(A) the testing, evaluation, or demonstra-
9 tion of the vehicle is only conducted by employ-
10 ees, agents, or fleet management contractors of
11 the manufacturer of the highly automated vehi-
12 cle, the automated driving system, or any compo-
13 nent thereof;

14 “(B) such manufacturer agrees not to sell,
15 lease, or offer for sale or lease, the vehicle or sys-
16 tem at the conclusion of the testing, evaluation,
17 or demonstration; and

18 “(C) such manufacturer has submitted ap-
19 propriate manufacturer identification informa-
20 tion that is similar to information submitted by
21 manufacturers subject to a Federal motor vehicle
22 safety standard under part 566 of title 49, Code
23 of Federal Regulations, before the commencement
24 of such testing or evaluation.”.

1 **SEC. 6. HIGHLY AUTOMATED VEHICLES EXEMPTIONS.**

2 (a) *IN GENERAL.*—Section 30113 of title 49, United
3 States Code, is amended—

4 (1) *in subsection (a)*—

5 (A) *by striking “this section,” and inserting*
6 *the following: “this section—*

7 *“(1) the term”;*

8 (B) *by striking the period at the end and*
9 *inserting “; and”;* and

10 (C) *by adding at the end the following:*

11 *“(2) the term ‘new motor vehicle safety feature’*
12 *includes any feature that enables a highly automated*
13 *vehicle or an automated driving system, regardless of*
14 *whether an exemption has already been granted for a*
15 *similar feature on another model or models.”;*

16 (2) *in subsection (b)*—

17 (A) *by amending paragraph (2) to read as*
18 *follows:*

19 *“(2) The Secretary may begin a proceeding under this*
20 *subsection when a manufacturer applies for an exemption*
21 *or a renewal of an exemption. The Secretary shall publish*
22 *notice of the application and provide an opportunity to*
23 *comment. An application for an exemption or for a renewal*
24 *of an exemption shall be filed at a time and in the way,*
25 *and contain such information, this section and the Sec-*
26 *retary require. The Secretary shall grant or deny an exemp-*

1 *tion for a highly automated vehicle not later than 180 days*
 2 *after receiving an application for such exemption from a*
 3 *manufacturer. Before granting a renewal of an exemption*
 4 *or otherwise increasing the number of highly automated ve-*
 5 *hicles of a manufacturer that may be sold or introduced*
 6 *under a previously granted exemption, the Secretary shall*
 7 *evaluate the previous exemption and make a safety equiva-*
 8 *lence finding consistent with paragraph (3).”; and*

9 *(B) in paragraph (3)(B)(iv), by inserting*
 10 *“or introducing or delivering into interstate*
 11 *commerce” after “selling”;*

12 *(3) in subsection (d)—*

13 *(A) by inserting “(1)” after “ELIGI-*
 14 *BILITY.—”;* and

15 *(B) by striking the second sentence and in-*
 16 *serting the following:*

17 *“(2) A manufacturer is eligible for an exemption*
 18 *under clause (ii), (iii), or (iv) of subsection (b)(3)(B)*
 19 *only if the Secretary determines that—*

20 *“(A) the exemption is for not more than*
 21 *2,500 vehicles to be sold in the United States in*
 22 *any 12-month period; or*

23 *“(B) the vehicle is a highly automated vehi-*
 24 *cle; and*

1 “(i) during the 12-month period begin-
2 ning on the date of the enactment of the AV
3 START Act, the exemption is for not more
4 than 15,000 vehicles to be sold or introduced
5 into interstate commerce in the United
6 States;

7 “(ii) during the 12-month period im-
8 mediately following the period described in
9 clause (i), the exemption is for not more
10 than 40,000 vehicles to be sold or introduced
11 into interstate commerce in the United
12 States; and

13 “(iii) during any 12-month period fol-
14 lowing the period described in clause (ii),
15 the exemption is for not more than 80,000
16 vehicles to be sold or introduced into inter-
17 state commerce in the United States.

18 “(C) A manufacturer of a highly automated
19 vehicle may petition the Secretary to expand the
20 exemption under paragraph (2)(B) to more than
21 80,000 vehicles in any-12 month period after the
22 exemption has been in place for 4 years.”; and
23 (4) in subsection (e), by inserting “, unless the
24 vehicle is a highly automated vehicle” before the pe-
25 riod at the end.

1 (b) *SUNSET.*—A manufacturer’s eligibility for an ex-
 2 *emption from a provision, clause, sentence, or paragraph*
 3 *in a motor vehicle safety standard under section*
 4 *30113(d)(2)(B) of title 49, United States Code, as amended*
 5 *by subsection (a), shall end on the earlier of the date that*
 6 *is 10 years after the date of the enactment of this Act or*
 7 *the date on which a standard (except for a standard pro-*
 8 *mulgated under section 4 of this Act) that amends the provi-*
 9 *sion, clause, sentence, or paragraph from which an exemp-*
 10 *tion is sought takes effect, with due consideration for any*
 11 *lead time specified for compliance.*

12 **SEC. 7. INOPERATIVE CONTROLS.**

13 Section 30122(b) of title 49, United States Code, is
 14 *amended—*

15 (1) by inserting “(1)” before “A manufacturer”;

16 *and*

17 (2) by adding at the end the following:

18 “(2) *The prohibition under paragraph (1) shall not*
 19 *apply to a manufacturer that intentionally causes a steer-*
 20 *ing wheel, brake or accelerator pedals, a gear shift, or other*
 21 *feature or element of design related to the performance of*
 22 *the dynamic driving task by a human operator in compli-*
 23 *ance with an applicable motor vehicle safety standard to*
 24 *be temporarily disabled during the time that an automated*

1 *driving system is performing the entire dynamic driving*
2 *task.”.*

3 **SEC. 8. LEVELS OF DRIVING AUTOMATION.**

4 (a) *USE OF SAE INTERNATIONAL’S TAXONOMY AND*
5 *DEFINITIONS.—The Secretary shall use the taxonomy and*
6 *definitions for automated driving systems set forth in SAE*
7 *International standard J3016, published on September 30,*
8 *2016, for the various levels of automation for motor vehicles.*

9 (b) *REVIEW.—*

10 (1) *IN GENERAL.—The Secretary—*

11 (A) *shall review the taxonomy and defini-*
12 *tions for automated driving systems set forth by*
13 *SAE International to ensure that such taxonomy*
14 *and definitions are clear and objective; and*

15 (B) *may provide feedback to SAE Inter-*
16 *national for potential updates.*

17 (2) *USE OF REVISED STANDARD.—*

18 (A) *DETERMINATION.—Not later than 120*
19 *days after SAE International revises the stand-*
20 *ard referred to in subsection (a), the Secretary,*
21 *after publishing notice of the revision in the Fed-*
22 *eral Register, shall determine whether to adopt*
23 *the revised standard to identify the various levels*
24 *of automation for motor vehicles.*

1 (B) *EFFECT OF DECISION NOT TO ADOPT*
 2 *THE REVISED STANDARD.—If the Secretary de-*
 3 *cides not to adopt the revised standard—*

4 (i) *the Secretary shall notify SAE*
 5 *International of the Secretary’s decision;*
 6 *and*

7 (ii) *the definitions referred to in sub-*
 8 *section (a) shall remain in effect.*

9 **SEC. 9. SAFETY EVALUATION REPORT.**

10 (a) *IN GENERAL.—Subchapter I of chapter 301 of title*
 11 *49, United States Code, is amended by adding at the end*
 12 *the following:*

13 **“§30107. Highly automated vehicles safety evaluation**
 14 **report**

15 “(a) *IN GENERAL.—*

16 “(1) *REQUIREMENT.—Each manufacturer intro-*
 17 *ducing a new highly automated vehicle or automated*
 18 *driving system into interstate commerce shall provide*
 19 *a safety evaluation report, in accordance with this*
 20 *section, that describes how the manufacturer is ad-*
 21 *dresssing the safety of such vehicle or system.*

22 “(2) *SUBMISSION.—Each manufacturer described*
 23 *in paragraph (1) shall—*

24 “(A) *submit a report to the Secretary—*

1 “(i) upon testing a highly automated
2 vehicle or automated driving system; and

3 “(ii) not later than 90 days before sell-
4 ing, offering for sale, or otherwise commer-
5 cializing a highly automated vehicle or
6 automated driving system; and

7 “(B) annually submit, until the vehicle or
8 system is no longer being sold, offered for sale, or
9 otherwise introduced into interstate commerce by
10 the manufacturer or until the system is no longer
11 being incorporated into new motor vehicles by
12 the manufacturer, an updated report to the Sec-
13 retary that—

14 “(i) may disclose that no significant
15 changes were made to the vehicle or system;
16 and

17 “(ii) shall provide aggregate results of
18 any significant safety deviation from ex-
19 pected performance disclosed in the previous
20 report and aggregate results comparing the
21 safety level of the vehicle or system with a
22 vehicle that is not highly automated and is
23 driven by a human driver.

24 “(3) REVIEW.—The Secretary—

1 “(A) shall review each report submitted
2 under paragraph (2); and

3 “(B) may require that the manufacturer
4 submit additional or clarifying information.

5 “(4) *LIMITATION.*—*The Secretary may not con-*
6 *dition the manufacture, testing, sale, offer for sale, or*
7 *introduction into interstate commerce of a highly*
8 *automated vehicle or automated driving system based*
9 *on a review of a safety evaluation report or addi-*
10 *tional information submitted under this section.*

11 “(b) *SAFETY EVALUATION REPORT SUBJECT*
12 *AREAS.*—*Each report submitted by a manufacturer under*
13 *subsection (a) shall describe how the manufacturer is ad-*
14 *ressing, through a documented assessment, testing, and*
15 *validation process, each of the subject areas described in*
16 *paragraphs (1) through (9).*

17 “(1) *SYSTEM SAFETY.*—*The avoidance of unrea-*
18 *sonable risks to safety, including—*

19 “(A) *assurance that systems, including*
20 *hardware and software, perform intended func-*
21 *tions;*

22 “(B) *the mitigation of unreasonable risks to*
23 *safety caused by a malfunction of the automated*
24 *driving system, including any component there-*
25 *in; and*

1 “(C) sense of objects, motorcyclists,
2 bicyclists, pedestrians, and animals in or cross-
3 ing the path of travel through the automated
4 driving system.

5 “(2) *DATA RECORDING.*—The collection by the
6 vehicle of automated driving system performance in-
7 formation and incident and crash data—

8 “(A) to record the occurrence of malfunc-
9 tions, disengagements, degradations, or failures;

10 “(B) to aid in the analysis of the cause of
11 any issues described in subparagraph (A);

12 “(C) to enable efforts to work with other en-
13 tities to address data recording and sharing; and

14 “(D) with respect to event data recorder in-
15 formation, that complies with the collection and
16 sharing requirements under the FAST Act (Pub-
17 lic Law 114–94).

18 “(3) *CYBERSECURITY.*—The minimization of cy-
19 bersecurity risks to safety, including evaluation of ele-
20 ments of the supply chain to identify and address cy-
21 bersecurity vulnerabilities, and the exchange of infor-
22 mation about any vulnerabilities discovered from field
23 incidents, internal testing, or external security re-
24 search, and mechanisms for alerting the human driv-
25 er or operator about cyber vulnerabilities.

1 “(4) *HUMAN-MACHINE INTERFACE.*—

2 “(A) *The methods of informing the human*
3 *driver or operator about whether the automated*
4 *driving system is functioning properly.*

5 “(B) *For a Level 3 vehicle, the methods to*
6 *address driver reengagement.*

7 “(C) *The use of a human-machine interface*
8 *by people with disabilities through visual, audi-*
9 *tory, or haptic displays, or other methods.*

10 “(5) *CRASHWORTHINESS.*—*Practicable protec-*
11 *tion for all occupants given any planned seating posi-*
12 *tions or interior configurations.*

13 “(6) *CAPABILITIES.*—*The capabilities and limi-*
14 *tations of the highly automated vehicle or automated*
15 *driving system, including its expected SAE level.*

16 “(7) *POST-CRASH BEHAVIOR.*—*The post-crash be-*
17 *havior of the highly automated vehicle or automated*
18 *driving system if sensors or critical systems are dam-*
19 *aged in a crash.*

20 “(8) *ACCOUNT FOR APPLICABLE LAWS.*—*The ac-*
21 *count of applicable traffic laws and rules of the road,*
22 *based on operational design domain, in the develop-*
23 *ment of a highly automated vehicle or automated*
24 *driving system.*

25 “(9) *AUTOMATION FUNCTION.*—

1 “(A) *The expected operational design do-*
2 *main in which the highly automated vehicle or*
3 *automated driving system is designed to operate,*
4 *including any roadway and infrastructure assets*
5 *required for the operation of the highly auto-*
6 *mated vehicle or automated driving system, such*
7 *as roadside equipment, pavement markings,*
8 *signage, and traffic signals, and how it will re-*
9 *spond if that operational design domain unex-*
10 *pectedly changes.*

11 “(B) *The automated driving system’s ex-*
12 *pected object and event detection and response*
13 *capabilities, including behavioral competencies*
14 *and crash avoidance capability.*

15 “(C) *The ability of the highly automated ve-*
16 *hicle or automated driving system to transition*
17 *to a minimal risk condition when a malfunction*
18 *is encountered.*

19 “(D) *The performance of the vehicle through*
20 *the manufacturer’s development and implemen-*
21 *tation of tests, including simulation, test track,*
22 *and on-road testing.*

23 “(c) *CERTIFICATION OF INAPPLICABLE CAT-*
24 *EGORIES.—A manufacturer that is solely testing a vehicle*

1 *or system may certify that one or more of the categories*
2 *set forth in subsection (b) do not apply.*

3 “(d) *PUBLICLY AVAILABLE.—The Secretary shall make*
4 *any report submitted by a manufacturer under this section*
5 *publicly available not later than 60 days after receipt, ex-*
6 *cept the Secretary may not make publicly available any*
7 *information relating to a trade secret or confidential busi-*
8 *ness information, or which is privileged. The manufacturer*
9 *may submit information related to a trade secret or con-*
10 *fidential business information separately from the report.*

11 “(e) *OFFICIAL SIGNATURE.—Each report submitted by*
12 *an entity under this section shall be reviewed by a senior*
13 *official of the entity who—*

14 “(1) *is knowledgeable about the information con-*
15 *tained in the report; and*

16 “(2) *shall certify that, based on the official’s*
17 *knowledge, the report does not contain any untrue*
18 *statement of a material fact.*

19 “(f) *TERMINATION OF OBLIGATION TO DISCLOSE IN-*
20 *FORMATION.—*

21 “(1) *IN GENERAL.—A manufacturer’s obligation*
22 *to provide information on a specific category under*
23 *subsection (b) shall end on the effective date of a*
24 *motor vehicle safety standard applicable to the same*
25 *aspect of vehicle or system performance as is covered*

1 *by the category, with due consideration for any lead*
2 *time specified for compliance.*

3 “(2) *EFFECT OF NEW STANDARD.—In adopting*
4 *any standard applicable to highly automated vehicle*
5 *performance, the Secretary shall—*

6 “(A) *identify the category under subsection*
7 *(b) to which the standard relates, if any; and*

8 “(B) *specify what information is no longer*
9 *required to be included in the report as a result*
10 *of the new standard.*

11 “(g) *RULE OF CONSTRUCTION.—*

12 “(1) *SUBMISSIONS.—A manufacturer may sub-*
13 *mit a safety evaluation report for vehicles introduced*
14 *into interstate commerce before the date of the enact-*
15 *ment of the AV START Act.*

16 “(2) *SAVINGS PROVISIONS.—Nothing in this sec-*
17 *tion may be construed to amend, limit the authority,*
18 *or prohibit the use of the information included in the*
19 *report under this chapter.*

20 “(3) *Nothing in this section may be construed to*
21 *affect discovery, subpoena, other court order, or any*
22 *other judicial process otherwise allowed under appli-*
23 *cable Federal or State law.”.*

1 (b) *CLERICAL AMENDMENT.*—*The analysis for chapter*
 2 *301 of title 49, United States Code, is amended by inserting*
 3 *after the item relating to section 30106 the following:*

“30107. Highly automated vehicles safety evaluation report.”.

4 (c) *EFFECTIVE DATE.*—*The amendments made by this*
 5 *section shall take effect on the date that is 90 days after*
 6 *the date of the enactment of this Act.*

7 (d) *FALSE OR MISLEADING REPORTS.*—*Section*
 8 *30165(a)(4) of title 49, United States Code, is amended by*
 9 *inserting “or under the certification process established pur-*
 10 *suant to section 30107(e)” after “30166(o)”.*

11 **SEC. 10. HIGHLY AUTOMATED VEHICLES TECHNICAL COM-**
 12 **MITTEE.**

13 (a) *ESTABLISHMENT.*—*Not later than 180 days after*
 14 *the date of the enactment of this Act, the Secretary shall*
 15 *establish a Highly Automated Vehicles Technical Committee*
 16 *(referred to in this section as the “Committee”) to provide*
 17 *a forum for stakeholders to discuss, prioritize, and make*
 18 *technical recommendations for highly automated vehicle*
 19 *and automated driving system safety.*

20 (b) *MEMBERSHIP.*—

21 (1) *VOTING MEMBERS.*—*The Secretary—*

22 (A) *shall appoint 15 voting members to the*
 23 *Committee who—*

24 (i) *are specially qualified to serve on*
 25 *the Committee because of their technical*

1 *knowledge of automated driving systems, ve-*
2 *hicle-to-vehicle infrastructure systems, or the*
3 *impact of such systems on Federal motor ve-*
4 *hicle safety standards; and*

5 *(ii) shall include at least 1 representa-*
6 *tive of SAE International, automated vehi-*
7 *cle proving grounds designated by the De-*
8 *partment of Transportation, highly auto-*
9 *mated vehicle and automated driving sys-*
10 *tem manufacturers, safety organizations,*
11 *State and local government agencies, and*
12 *other organizations directly or indirectly*
13 *impacted by NHTSA regulations; and*

14 *(B) may appoint new members to the Com-*
15 *mittee at any time.*

16 (2) *COMPENSATION.*—*Members of the Committee*
17 *shall serve without compensation.*

18 (3) *CHAIRPERSON.*—*The Secretary, or the Sec-*
19 *retary's designee, shall act as Chairperson of the Com-*
20 *mittee, but will not have voting rights, except to break*
21 *a tie.*

22 (c) *DUTIES.*—

23 (1) *RECOMMENDATIONS.*—*The Committee shall*
24 *provide consensus-based recommendations to the Sec-*

1 *retary on rulemaking, policy, and guidance regarding*
2 *highly automated vehicle safety, including—*

3 *(A) the identification and creation of per-*
4 *formance standards; and*

5 *(B) the harmonization of national highly*
6 *automated vehicle safety standards with inter-*
7 *national standards.*

8 *(2) SCOPE.—The Committee shall study issues*
9 *relating to highly automated vehicles, including—*

10 *(A) system safety;*

11 *(B) automated steering and braking;*

12 *(C) crashworthiness for vehicles with uncon-*
13 *ventional seating positions or vehicles not in-*
14 *tended for human occupancy;*

15 *(D) event data recording;*

16 *(E) vehicle communication with roadway*
17 *and infrastructure assets, including pavement*
18 *markings, signage, and traffic signals;*

19 *(F) accessibility for people with physical,*
20 *sensory, or other disabilities, including for those*
21 *who rely on mobility devices;*

22 *(G) potential conflicts with existing Federal*
23 *motor vehicle safety standards; and*

1 (H) any other issue the Secretary considers
2 appropriate, including safeguards against mis-
3 use.

4 (3) *SUPPORT.*—The NHTSA Office of Rule-
5 making and the NHTSA Office of Vehicle Safety Re-
6 search shall provide support services to the Com-
7 mittee.

8 (4) *MEETINGS.*—The Committee shall meet not
9 less frequently than 4 times per year. Committee
10 meetings shall be open to the public, except in cir-
11 cumstances in which a meeting is likely to discuss—

12 (A) internal personnel rules and practices
13 of the NHTSA;

14 (B) matters specifically exempted from dis-
15 closure by statute;

16 (C) trade secrets or confidential or privi-
17 leged business information;

18 (D) matters involving criminal accusation
19 or official censure;

20 (E) information of a personal nature that,
21 if disclosed, would constitute an unwarranted in-
22 vasion of personal privacy; or

23 (F) investigatory records that might inter-
24 fere with enforcement proceedings.

25 (5) *WORKING GROUPS.*—

1 (A) *IN GENERAL.*—*The Committee may es-*
2 *tablish temporary working groups, as necessary,*
3 *to address specific issues. Each working group*
4 *shall include at least 1 member who represents a*
5 *manufacturer of highly automated vehicles or*
6 *automated driving systems and other individuals*
7 *who are subject matter experts on the issue before*
8 *the working group.*

9 (B) *DISABILITY AND LIMITED MOBILITY AC-*
10 *CESS.*—*The Committee shall establish a working*
11 *group to develop voluntary best practices regard-*
12 *ing highly automated vehicle accessibility for*
13 *people with physical, sensory, or other disabili-*
14 *ties, including for those who rely on mobility*
15 *devices. Such best practices shall address the*
16 *physical accessibility of highly automated vehi-*
17 *cles and human-machine interface accessibility*
18 *through visual, auditory, or haptic displays or*
19 *other methods. The working group shall include*
20 *representatives from national organizations rep-*
21 *resenting individuals with disabilities and older*
22 *adults.*

23 (d) *RECOMMENDATIONS FOR HIGHLY AUTOMATED VE-*
24 *HICLES.*—

1 (1) *IN GENERAL.*—On a periodic basis, the Com-
2 mittee shall release recommendations on voluntary
3 standards regarding highly automated vehicle safety.

4 (2) *WORK PLAN.*—Not later than 180 days after
5 the Committee is established under subsection (a), the
6 Committee shall submit a work plan to the Secretary
7 for carrying out this section.

8 (3) *REPORT.*—Not later than 5 years after the
9 date of the enactment of this Act, the Committee shall
10 submit a report containing recommendations of con-
11 sensus-based, feasible, and objective standards to the
12 Secretary for potential rulemaking governing highly
13 automated vehicles that meet the need for motor vehi-
14 cle safety.

15 (e) *CONSULTATION AND PUBLICATION OF REPORTS.*—

16 (1) *IN GENERAL.*—The Secretary shall consult
17 with the Committee, as appropriate, on highly auto-
18 mated vehicle safety matters, including the develop-
19 ment and implementation of relevant policies, pro-
20 grams, and rulemaking.

21 (2) *RECOMMENDED AGENDA.*—The Secretary
22 shall regularly provide recommendations to the Com-
23 mittee regarding the agenda of the Committee and
24 areas in which Committee activity would benefit and
25 complement Department of Transportation efforts.

1 (3) *REPORTS.*—*The Secretary shall make any re-*
2 *port or recommendation developed under this section*
3 *publicly available.*

4 (f) *FACA.*—*The Committee shall not be subject to the*
5 *requirements under the Federal Advisory Committee Act (5*
6 *U.S.C. App.).*

7 (g) *TERMINATION.*—*The Committee shall terminate*
8 *upon the submission of the final report required under sub-*
9 *section (d)(3) unless the Secretary determines that the Com-*
10 *mittee should continue.*

11 **SEC. 11. HIGHLY AUTOMATED VEHICLES RULEMAKING.**

12 (a) *IN GENERAL.*—*The Secretary shall review and seek*
13 *public comment on the recommendations for standards*
14 *made by the Highly Automated Vehicles Technical Com-*
15 *mittee under section 10(d)(3).*

16 (b) *DETERMINATION.*—*Not later than 1 year after the*
17 *receipt of the recommendations referred to in subsection (a),*
18 *the Secretary shall—*

19 (1) *make a determination whether to approve*
20 *one or more of the recommendations, based on an*
21 *identified need for motor vehicle safety; and*

22 (2) *begin a rulemaking proceeding on the rec-*
23 *ommendations approved pursuant to paragraph (1)*
24 *on the safety of highly automated vehicles.*

1 (c) *RULE OF CONSTRUCTION.*—*Nothing in this section*
2 *may be construed to restrict the authority of the Secretary*
3 *under section 30111 of title 49, United States Code. Any*
4 *Federal motor vehicle safety standard adopted pursuant to*
5 *this section shall meet the requirements under such section*
6 *30111.*

7 **SEC. 12. CONSUMER EDUCATION.**

8 (a) *ESTABLISHMENT.*—*Not later than 180 days after*
9 *the date of the enactment of this Act, the Secretary shall*
10 *establish a working group on responsible education efforts*
11 *for advanced driver assist systems and automated driving*
12 *systems.*

13 (b) *DUTIES.*—*The working group established under*
14 *subsection (a) shall—*

15 (1) *identify recommended education and respon-*
16 *sible marketing strategies and programs that may be*
17 *voluntarily employed by industry to inform con-*
18 *sumers, vehicle owners and operators, and other stake-*
19 *holders about advanced driver assistance systems and*
20 *automated driving systems as they become available*
21 *or are soon to be introduced into interstate commerce;*

22 (2) *identify recommended education and respon-*
23 *sible marketing strategies that may be voluntarily*
24 *employed by industry to inform consumers on the*
25 *comparative safety of highly automated vehicle and*

1 *non-highly automated vehicles driven by human with*
2 *respect to crashes, fatalities, and other injuries (if*
3 *known); and*

4 (3) *submit a report containing the findings and*
5 *recommendations of the working group to Congress*
6 *and making such report available to the public.*

7 (c) *CONSIDERATIONS.—The working group shall con-*
8 *sider topics pertaining to—*

9 (1) *intent, capabilities, and limitations of ad-*
10 *vanced driver assistance systems and automated driv-*
11 *ing systems;*

12 (2) *engagement and disengagement methods, in-*
13 *cluding methods to address driver engagement in*
14 *lower levels of automation;*

15 (3) *human-machine interfaces;*

16 (4) *emergency fallback scenarios;*

17 (5) *operational boundary responsibilities;*

18 (6) *response in the event of a crash or system*
19 *failure;*

20 (7) *potential mechanisms that could change*
21 *function behavior in service;*

22 (8) *consistent nomenclature and taxonomy for*
23 *safety features and systems; and*

1 (9) *disclosure of automated driving system prac-*
2 *tices pertaining to consumer data collection, privacy,*
3 *and data ownership.*

4 (d) *MEMBERSHIP.—*

5 (1) *IN GENERAL.—The Secretary shall appoint,*
6 *as members of the working group, individuals with*
7 *expertise in automated driving systems and driver as-*
8 *sistance systems, including—*

9 (A) *representatives of—*

10 (i) *motor vehicle manufacturers;*

11 (ii) *manufacturers of automated driv-*
12 *ing systems and driver assistance systems*
13 *(including components);*

14 (iii) *motor vehicle dealers;*

15 (iv) *motor vehicle owners and opera-*
16 *tors, including fleet managers, vehicle rental*
17 *companies, and transportation network*
18 *companies;*

19 (v) *consumers or consumer advocacy*
20 *groups;*

21 (vi) *automated vehicle proving grounds*
22 *designated by the Department of Transpor-*
23 *tation;*

24 (vii) *public health organizations;*

25 (viii) *marketing professionals;*

1 *(ix) entities with national experience*
2 *in consumer education, including drivers'*
3 *education;*

4 *(x) safety organizations;*

5 *(xi) enabling technology companies;*

6 *and*

7 *(xii) national cross disability organi-*
8 *zations and national organizations rep-*
9 *resenting older adults; and*

10 *(B) any other members the Secretary con-*
11 *siders appropriate.*

12 *(2) COMPENSATION.—Members of the working*
13 *group shall serve without compensation.*

14 *(3) CONSULTATION.—The Secretary shall consult*
15 *with the Federal Trade Commission about the rec-*
16 *ommendations of the working group, as appropriate.*

17 *(e) TERMINATION.—The working group established*
18 *under this section shall terminate on the date that is 2 years*
19 *after the date of the enactment of this Act.*

20 *(f) RULEMAKING ON POINT OF SALE INFORMATION.—*
21 *Not later than 3 years after the date of enactment of this*
22 *Act, the Secretary shall promulgate a rule to require clear*
23 *and concise information about the capabilities and limita-*
24 *tions of a highly automated vehicle or an automated driving*

1 *system to be provided to a consumer at the point of sale*
2 *and in the vehicle owner's manual.*

3 **SEC. 13. TRAFFIC SAFETY AND LAW ENFORCEMENT.**

4 *(a) RESEARCH.—The Secretary, in coordination with*
5 *State and local transportation and highway safety entities,*
6 *State and local law enforcement entities, and other relevant*
7 *parties, shall research the traffic safety implications of*
8 *highly automated vehicles, including—*

9 *(1) the intersection of conventional and highly*
10 *automated vehicles; and*

11 *(2) law enforcement impacts, including—*

12 *(A) enforcing applicable laws;*

13 *(B) identifying whether a vehicle was in*
14 *automated mode at the time of a crash;*

15 *(C) lawfully accessing event data informa-*
16 *tion; and*

17 *(D) determining how a highly automated*
18 *vehicle should respond to law enforcement.*

19 *(b) COORDINATION OF SAFETY.—The Secretary, in co-*
20 *ordination with State, local, and law enforcement agencies,*
21 *may develop a process for State and local entities to provide*
22 *information, on a voluntary basis, to the Secretary to assist*
23 *the Department of Transportation in identifying defects re-*
24 *lated to motor vehicle safety of highly automated vehicles.*

1 (c) *CRASH DATA.*—Not later than 3 years after the
 2 date of the enactment of this Act, the Secretary shall revise
 3 the crash investigation data collection system to include the
 4 collection of crash report data elements that distinguish
 5 whether the vehicle involved in a crash is a highly auto-
 6 mated vehicle, including the level of automation and wheth-
 7 er the vehicle was in automated mode at the time of a crash.

8 **SEC. 14. CYBERSECURITY.**

9 (a) *IN GENERAL.*—Subchapter I of chapter 301 of title
 10 49, United States Code, as amended by section 9, is further
 11 amended by adding at the end the following:

12 **“§30108. Cybersecurity risks to the safety of highly**
 13 **automated vehicles**

14 “(a) *DEFINITIONS.*—In this section:

15 “(1) *CYBERSECURITY INCIDENT.*—The term ‘cy-
 16 bersecurity incident’ has the meaning given the term
 17 ‘incident’ in section 227(a) of the Homeland Security
 18 Act of 2002 (6 U.S.C. 148(a)).

19 “(2) *CYBERSECURITY RISK.*—The term ‘cyberse-
 20 curity risk’ has the meaning given the term in section
 21 227(a) of the Homeland Security Act of 2002 (6
 22 U.S.C. 148(a)).

23 “(3) *CYBERSECURITY VULNERABILITY.*—The
 24 term ‘cybersecurity vulnerability’ has the meaning
 25 given the term ‘security vulnerability’ in section 102

1 *of the Cybersecurity Information Sharing Act of 2015*
2 *(6 U.S.C. 1501).*

3 *“(b) CYBERSECURITY PLAN.—*

4 *“(1) IN GENERAL.—Each manufacturer of a*
5 *highly automated vehicle or automated driving system*
6 *shall develop, maintain, and execute a written plan*
7 *for identifying and reducing cybersecurity risks to the*
8 *motor vehicle safety of such vehicles and systems.*

9 *“(2) REQUIREMENTS.—The plan required under*
10 *paragraph (1) shall include a process for—*

11 *“(A) the risk-based prioritized identification*
12 *and protection of safety-critical vehicle control*
13 *systems and the broader transportation eco-*
14 *system, as applicable;*

15 *“(B) the efficient detection and response to*
16 *potential vehicle cybersecurity incidents in the*
17 *field;*

18 *“(C) facilitating expeditious recovery from*
19 *incidents as they occur;*

20 *“(D) the institutionalization of methods for*
21 *the accelerated adoption of lessons learned across*
22 *industry through voluntary exchange of informa-*
23 *tion pertaining to cybersecurity incidents,*
24 *threats, and vulnerabilities, including the consid-*
25 *eration of a coordinated cybersecurity vulner-*

1 *ability disclosure policy or other related prac-*
2 *tices for collaboration with third-party cyberse-*
3 *curity researchers;*

4 “(E) *the identification of the point of con-*
5 *tact of the manufacturer with responsibility for*
6 *the management of cybersecurity;*

7 “(F) *the evaluation of elements of the sup-*
8 *ply chain to identify and address cybersecurity*
9 *vulnerabilities;*

10 “(G) *the use of segmentation and isolation*
11 *techniques in vehicle architecture design, as ap-*
12 *propriate;*

13 “(H) *employee training on the implementa-*
14 *tion of and compliance with the requirements*
15 *under this paragraph; and*

16 “(I) *supporting voluntary efforts by indus-*
17 *try and standards-setting organizations to de-*
18 *velop and identify consistent standards and*
19 *guidelines relating to vehicle cybersecurity, con-*
20 *sistent, and to the extent appropriate, with the*
21 *cybersecurity risk management activities de-*
22 *scribed in section 2(e) of the National Institute*
23 *of Standards and Technology Act (15 U.S.C.*
24 *272(e)).*

1 “(3) *INSPECTION.*—*The Secretary may inspect*
2 *any cybersecurity plan developed by a manufacturer*
3 *under this subsection to enable the Secretary to decide*
4 *whether the manufacturer has complied, or is com-*
5 *plying, with this chapter or a regulation prescribed or*
6 *order issued pursuant to this chapter.*

7 “(4) *PROTECTIONS FOR DISCLOSURE.*—*Each*
8 *manufacturer required to develop, maintain, and exe-*
9 *cute a plan under paragraph (1) shall develop a sum-*
10 *mary of the plan that is suitable for public disclosure*
11 *and disclose such summary to the public.*

12 “(c) *COORDINATED CYBERSECURITY VULNERABILITY*
13 *DISCLOSURE.*—*The Secretary may work cooperatively with*
14 *manufacturers of highly automated vehicles and automated*
15 *driving systems to incentivize manufacturers to voluntarily*
16 *adopt a coordinated vulnerability disclosure policy and*
17 *practice in which a security researcher privately discloses*
18 *information related to a discovered vulnerability to a man-*
19 *ufacturer and allows the manufacturer time to confirm and*
20 *remediate the vulnerability—*

21 “(1) *so that manufacturers build relationships*
22 *with security researchers to mitigate cybersecurity*
23 *risks; and*

24 “(2) *to discover and mitigate cybersecurity*
25 *vulnerabilities in highly automated vehicles or auto-*

1 *mated driving systems that present a risk to motor*
 2 *vehicle safety (as defined in section 30102 of title 49,*
 3 *United States Code).*

4 *“(d) COORDINATION.—All Federal agencies under-*
 5 *taking research on cybersecurity risks associated with high-*
 6 *ly automated vehicles shall coordinate with the Secretary*
 7 *on their findings.”.*

8 *(b) CLERICAL AMENDMENT.—The analysis for chapter*
 9 *301 of title 49, United States Code, is amended by inserting*
 10 *after the item relating to section 30107, as added by section*
 11 *9, the following:*

“30108. Cybersecurity risks to the safety of highly automated vehicles.”.

12 *(c) EFFECTIVE DATE.—The amendments made by this*
 13 *section shall take effect on the date that is 18 months after*
 14 *the date of the enactment of this Act.*

15 **SEC. 15. HAV DATA ACCESS ADVISORY COMMITTEE.**

16 *(a) SHORT TITLE.—This section may be cited as the*
 17 *“HAV Data Access Advisory Committee Act”.*

18 *(b) DEFINITIONS.—In this section:*

19 *(1) COMMITTEE.—The term “Committee” means*
 20 *the HAV Data Access Advisory Committee established*
 21 *pursuant to subsection (d)(1).*

22 *(2) HAV.—The term “HAV” means highly auto-*
 23 *mated vehicle.*

24 *(c) FEDERAL REGULATION OF HAV DATA ACCESS.—*

1 (1) *TEMPORARY RULEMAKING RESTRICTION.*—No
2 *department or administrative agency of the Federal*
3 *Government may promulgate any regulation with re-*
4 *spect to the ownership of, control of, or access to, in-*
5 *formation or data stored by, or generated by, a highly*
6 *automated vehicle or automated driving system before*
7 *the report required under section (d)(4) is submitted*
8 *to Congress.*

9 (2) *SAVINGS PROVISIONS.*—*Nothing in this sub-*
10 *section may be construed to prevent the Federal Gov-*
11 *ernment from carrying out its responsibilities under*
12 *the Driver Privacy Act of 2015 (49 U.S.C. 30101*
13 *note).*

14 (d) *HAV DATA ACCESS ADVISORY COMMITTEE.*—

15 (1) *ESTABLISHMENT.*—*Not later than 180 days*
16 *after the date of the enactment of this Act, the Sec-*
17 *retary shall establish the HAV Data Access Advisory*
18 *Committee to provide a forum for stakeholders to dis-*
19 *cuss and make policy recommendations to Congress*
20 *with respect to the ownership of, control of, or access*
21 *to, information or data that vehicles collect, generate,*
22 *record, or store in an electronic form that is retrieved*
23 *from a highly automated vehicle or automated driving*
24 *system.*

25 (2) *MEMBERSHIP.*—

1 (A) *VOTING MEMBERS.*—*The Committee*
2 *shall be composed of the following voting mem-*
3 *bers:*

4 (i) *The Secretary or the Secretary's*
5 *designee.*

6 (ii) *The Chairman of the Federal*
7 *Trade Commission or the Chairman's des-*
8 *ignee.*

9 (iii) *A representative of State govern-*
10 *ments.*

11 (iv) *A representative of local govern-*
12 *ments.*

13 (v) *A representative of metropolitan*
14 *planning organizations.*

15 (vi) *A representative of transit agen-*
16 *cies.*

17 (vii) *A representative of law enforce-*
18 *ment.*

19 (viii) *A representative of HAV manu-*
20 *facturers.*

21 (ix) *A representative of HAV equip-*
22 *ment manufacturers.*

23 (x) *A representative of HAV dealers.*

1 (xi) *A representative of aftermarket*
2 *parts manufacturers, distributors, and re-*
3 *tailers.*

4 (xii) *A representative of independent*
5 *vehicle repairers.*

6 (xiii) *A representative of consumer*
7 *safety advocates with privacy expertise.*

8 (xiv) *A representative of consumer*
9 *safety advocates with safety expertise.*

10 (xv) *A representative of property and*
11 *casualty insurers.*

12 (xvi) *A representative of long-term*
13 *motor vehicle fleet leasing and management*
14 *companies or professionals.*

15 (xvii) *A representative of short-term*
16 *motor vehicle fleet management or rental*
17 *companies.*

18 (xviii) *A representative of mobility on*
19 *demand companies.*

20 (xix) *A representative of motor coach*
21 *and tour bus owners.*

22 (B) *NON-VOTING MEMBERS.—The Secretary*
23 *may allow additional interested stakeholders to*
24 *attend and participate in the activities of the*
25 *Committee as non-voting members.*

1 (3) *MEETINGS.*—*The Committee shall meet not*
2 *less frequently than 4 times per year.*

3 (4) *REPORT.*—

4 (A) *IN GENERAL.*—*Not later than 2 years*
5 *after the Committee is established pursuant to*
6 *paragraph (1), the Committee shall submit a re-*
7 *port to the Committee on Commerce, Science,*
8 *and Transportation of the Senate and the Com-*
9 *mittee on Energy and Commerce of the House of*
10 *Representatives that contains recommendations,*
11 *supported by at least 2/3 of all voting members.*
12 *Such report shall include recommendations re-*
13 *garding the ownership of, control of, or access to,*
14 *information or data that vehicles collect, gen-*
15 *erate, record, or store in an electronic form that*
16 *is retrieved from a highly automated vehicle or*
17 *automated driving system, and may include mi-*
18 *nority views, if applicable.*

19 (B) *CONSIDERATIONS.*—*When making any*
20 *policy recommendations, the Committee shall*
21 *give appropriate consideration to motor vehicle*
22 *safety, intellectual property protections, compli-*
23 *ance with requirements under the Motor Vehicle*
24 *Safety Act, customer privacy, cybersecurity, con-*
25 *fidential business information related to the me-*

1 *chanical or computer systems of such vehicles,*
2 *public safety, and transportation planning. Rec-*
3 *ommendations should address—*

4 *(i) an owner’s or registered user’s per-*
5 *sonally identifiable information;*

6 *(ii) vehicle-generated data; and*

7 *(iii) vehicle interface capability.*

8 (5) *COMPENSATION.—Members of the Committee*
9 *shall serve without compensation.*

10 (6) *SUPPORT.—The Office of Rulemaking of the*
11 *National Highway Traffic Safety Administration and*
12 *the Bureau of Consumer Protection of the Federal*
13 *Trade Commission shall provide support services to*
14 *the Committee.*

15 (7) *TERMINATION.—The Committee shall termi-*
16 *nate upon the submission of the report required under*
17 *paragraph (4).*

18 (e) *GAO STUDY ON REMOVAL OF PERSONAL DATA*
19 *FROM VEHICLE INFORMATION SYSTEMS.—*

20 (1) *STUDY.—*

21 (A) *IN GENERAL.—The Comptroller General*
22 *of the United States shall conduct a study of the*
23 *technologies currently available to remove data*
24 *that may be personally identifiable or attrib-*
25 *utable to an individual from used motor vehicles*

1 upon their sale to a new owner or from leased
2 or rented vehicles at the completion of the lease
3 or rental contract.

4 (B) *UNIFORM DATA REMOVAL APPROACH.*—
5 The study conducted under subparagraph (A)
6 shall assess the feasibility of adopting a uniform
7 and simple approach across vehicle brands for
8 the removal of data described in subparagraph
9 (A) when a vehicle is sold or a lease or rental
10 ends.

11 (C) *CONSULTATION.*—In conducting the
12 study under subparagraph (A), the Comptroller
13 General shall consult with—

14 (i) vehicle manufacturers;

15 (ii) consumer groups;

16 (iii) vehicle dealers, including rep-
17 resentatives of the vehicle leasing and vehi-
18 cle rental industry; and

19 (iv) other stakeholders.

20 (2) *REPORT.*—Not later than 1 year after the
21 date of the enactment of this Act, the Comptroller
22 General of the United States shall submit a report to
23 the Committee on Commerce, Science, and Transpor-
24 tation of the Senate and the Committee on Energy
25 and Commerce of the House of Representatives that

1 *contains the result of the study conducted under sub-*
 2 *section (a), including recommendations regarding—*

3 *(A) the feasibility of adopting a uniform*
 4 *data removal approach; and*

5 *(B) legislative action that the Comptroller*
 6 *General may consider prudent and practicable*
 7 *for facilitating the consistent removal of data de-*
 8 *scribed in subparagraph (A).*

9 **SEC. 16. CYBERSECURITY CONSUMER EDUCATION INFOR-**
 10 **MATION.**

11 *(a) IN GENERAL.—Not later than 1 year after the date*
 12 *of the enactment of this Act, the Secretary shall—*

13 *(1) develop educational cybersecurity resources to*
 14 *assist consumers in maintaining awareness of and*
 15 *minimizing potential motor vehicle cybersecurity*
 16 *risks; and*

17 *(2) ensure that the resources developed under*
 18 *paragraph (1) are available to and readily accessible*
 19 *by the public on the website of the National Highway*
 20 *Traffic Safety Administration.*

21 *(b) PERIODIC UPDATES.—The Secretary shall periodi-*
 22 *cally update the resources developed under subsection (a).*

23 *(c) CONSULTATION.—In developing the resources under*
 24 *subsection (a), the Secretary shall consult with motor vehi-*
 25 *cle industry representatives, safety organizations, security*

1 *researchers, the National institute of Standards and Tech-*
 2 *nology, and State and local government agencies that are*
 3 *directly or indirectly affected by this Act.*

4 **SEC. 17. PROVISION OF CYBERSECURITY RESOURCE INFOR-**
 5 **MATION.**

6 *Manufacturers of motor vehicles shall include informa-*
 7 *tion directing consumers to the cybersecurity resources de-*
 8 *veloped by the Secretary under section 16 in motor vehicle*
 9 *owners' manuals or on the manufacturer's website that is*
 10 *publicly available and accessible to consumers.*

11 **SEC. 18. HIGHLY AUTOMATED VEHICLE STUDY.**

12 *(a) IN GENERAL.—Not later than 60 days after the*
 13 *date of enactment of this Act, the Secretary shall initiate*
 14 *a study on the existing and future impacts of highly auto-*
 15 *mated vehicles to transportation infrastructure, mobility,*
 16 *the environment, and fuel consumption, including impacts*
 17 *on—*

18 *(1) the Interstate System (as defined in section*
 19 *101(a) of title 23, United States Code);*

20 *(2) urban areas;*

21 *(3) rural areas;*

22 *(4) transit systems;*

23 *(5) corridors with heavy traffic congestion;*

24 *(6) energy consumption and dependence;*

1 (7) *the connection between automated driving*
2 *systems and fuel consumption and emissions;*

3 (8) *transportation systems optimization;*

4 (9) *the role of vehicle-to-vehicle and vehicle-to-in-*
5 *frastructure communications in transportation energy*
6 *use;*

7 (10) *vehicle drivetrain selection and perform-*
8 *ance;*

9 (11) *congestion, crash avoidance, and emissions*
10 *implications for States and localities; and*

11 (12) *any other areas or issues that the Secretary*
12 *determines to be appropriate.*

13 (b) *CONTENTS OF STUDY.—The study under subsection*
14 (a) *shall include specific recommendations regarding the*
15 *impacts of highly automated vehicles on—*

16 (1) *existing transportation system capacity;*

17 (2) *vehicle miles traveled;*

18 (3) *vehicle emissions;*

19 (4) *public transit and multimodal use;*

20 (5) *energy consumption and dependence; and*

21 (6) *land use.*

22 (c) *CONSIDERATIONS.—In carrying out the study, the*
23 *Secretary shall—*

1 (1) *determine the need for any policy changes re-*
2 *quired by Federal agencies and legislative changes to*
3 *be considered by Congress; and*

4 (2) *include a discussion of—*

5 (A) *the impacts that highly automated vehi-*
6 *cles will place on existing transportation infra-*
7 *structure, including signage and markings, traf-*
8 *fic lights, and highway capacity and design;*

9 (B) *the implications of shared fleet and al-*
10 *ternative vehicle ownership models;*

11 (C) *the impact on commercial and private*
12 *traffic flows;*

13 (D) *infrastructure improvement needs that*
14 *may be necessary to accommodate highly auto-*
15 *mated vehicles, including potential energy needs;*

16 (E) *the impact of highly automated vehicles*
17 *on the environment, energy needs, congestion,*
18 *and vehicle miles traveled; and*

19 (F) *the impact of highly automated vehicles*
20 *on mobility and public transit use in urban,*
21 *suburban, and rural areas, including pedestrian*
22 *and bicycle transportation modes.*

23 (d) *COORDINATION.—In carrying out the study, the*
24 *Secretary shall consider and incorporate relevant current*
25 *and ongoing research of the Department of Transportation.*

1 (e) *CONSULTATION.*—*In carrying out the study, the*
2 *Secretary shall convene and consult with a panel of na-*
3 *tional experts, including—*

4 (1) *operators and users of the Interstate System*
5 *(as defined in section 101(a) of title 23, United States*
6 *Code), including private sector stakeholders;*

7 (2) *States;*

8 (3) *metropolitan planning organizations;*

9 (4) *the motor carrier industry;*

10 (5) *representatives of public transportation agen-*
11 *cies or organizations;*

12 (6) *highway safety and academic groups;*

13 (7) *nonprofit entities with experience in energy*
14 *security and transportation policy;*

15 (8) *National Laboratories (as defined in section*
16 *2 of the Energy Policy Act of 2005 (42 U.S.C.*
17 *15801));*

18 (9) *environmental stakeholders; and*

19 (10) *highly automated vehicle producers, manu-*
20 *facturers, and technology developers.*

21 (f) *REPORT.*—*Not later than 18 months after the date*
22 *on which the study under subsection (a) is initiated, the*
23 *Secretary shall submit to Congress a report on the results*
24 *of the study.*

1 (g) *FACA.*—*The Federal Advisory Committee Act (5*
 2 *U.S.C. App.) shall not apply to the panel convened in ac-*
 3 *cordance with subsection (e).*

4 **SEC. 19. STUDY ON ENCOURAGING MANUFACTURING IN**
 5 **THE UNITED STATES OF AUTOMATED DRIV-**
 6 **ING EQUIPMENT AND INTELLIGENT TRANS-**
 7 **PORTATION SOLUTIONS.**

8 (a) *IN GENERAL.*—*The Secretary shall conduct a*
 9 *study on ways to encourage manufacturing in the United*
 10 *States of automated driving equipment, intelligent trans-*
 11 *portation solutions, and other equipment, including hard-*
 12 *ware and processors.*

13 (b) *RECOMMENDATIONS.*—*In conducting the study re-*
 14 *quired by subsection (a), the Secretary shall develop rec-*
 15 *ommendations for methods to incentivize manufacturing in*
 16 *the United States of automated driving equipment, intel-*
 17 *ligent transportation solutions, and other equipment, in-*
 18 *cluding hardware and processors, including through the use*
 19 *of grant programs and other funding sources.*

20 **SEC. 20. PRIVACY PROTECTIONS FOR USERS OF MOTOR VE-**
 21 **HICLES.**

22 (a) *MOTOR VEHICLE PRIVACY DATABASE.*—*Beginning*
 23 *not later than 1 year after the date of enactment of this*
 24 *Act, the Administrator of NHTSA shall—*

1 (1) *create a publicly accessible and easily search-*
2 *able online database that contains the information de-*
3 *scribed in subsection (c); and*

4 (2) *place a link to the database described in*
5 *paragraph (1) on the home page of NHTSA's website.*

6 (b) *CONTENTS.—The database described in subsection*
7 *(b)(1) shall contain—*

8 (1) *a description of the information, including*
9 *personally identifiable information, that will be col-*
10 *lected about individuals during the operation of*
11 *motor vehicles;*

12 (2) *an explanation of how the information re-*
13 *ferred to in paragraph (1), and the conclusions drawn*
14 *from such information, will be used, disclosed, and*
15 *otherwise handled, including—*

16 (A) *how the collection or retention of such*
17 *information that is unrelated to the operation of*
18 *the motor vehicle use will be minimized;*

19 (B) *the period during which such informa-*
20 *tion will be retained; and*

21 (C) *when and how such information, in-*
22 *cluding information no longer relevant to the*
23 *specified use, will be destroyed;*

24 (3) *steps that will be used to protect against the*
25 *unauthorized disclosure of any personally identifiable*

1 *information, such as the use of encryption methods*
 2 *and other security features; and*

3 *(4) the privacy policies of manufacturers of*
 4 *motor vehicles, including whether consumers will have*
 5 *the right to stop the collection, use, distribution, or*
 6 *sale of their personally identifiable information.*

7 **SEC. 21. CHILD SAFETY.**

8 *(a) AMENDMENT.—*

9 *(1) IN GENERAL.—Chapter 323 of title 49,*
 10 *United States Code, is amended by adding after sec-*
 11 *tion 32304A the following:*

12 **“§ 32304B. Child safety**

13 *“(a) DEFINITIONS.—In this section:*

14 *“(1) PASSENGER MOTOR VEHICLE.—The term*
 15 *‘passenger motor vehicle’ has the meaning given that*
 16 *term in section 32101.*

17 *“(2) REAR DESIGNATED SEATING POSITION.—*
 18 *The term ‘rear designated seating position’ means*
 19 *designated seating positions that are rearward of the*
 20 *front seat.*

21 *“(3) SECRETARY.—The term ‘Secretary’ means*
 22 *the Secretary of Transportation.*

23 *“(b) RULEMAKING.—Not later than 2 years after the*
 24 *date of the enactment of the American Vision for Safer*
 25 *Transportation through Advancement of Revolutionary*

1 *Technologies Act, the Secretary shall issue a final rule re-*
2 *quiring all new passenger motor vehicles weighing less than*
3 *10,000 pounds gross vehicle weight to be equipped with a*
4 *system to alert the operator to check rear designated seating*
5 *positions after the vehicle engine or motor is deactivated*
6 *by the operator.*

7 “(c) *MEANS.—The alert required under subsection*
8 *(b)—*

9 “(1) *shall include a distinct auditory and visual*
10 *alert, which may be combined with a haptic alert;*
11 *and*

12 “(2) *shall be activated when the vehicle motor is*
13 *deactivated by the operator.*

14 “(d) *ADD-ON CHILD RESTRAINT SYSTEMS.—In*
15 *issuing the final rule required by subsection (b), the Sec-*
16 *retary shall consider additional technologies that work with*
17 *add-on child restraint systems that achieve the same pur-*
18 *pose of alerting the driver in addition to the vehicle-based*
19 *system.*

20 “(e) *PHASE-IN.—The rule issued pursuant to sub-*
21 *section (b) shall require full compliance with the rule begin-*
22 *ning on September 1st of the first calendar year that begins*
23 *more than 30 months after the date on which the final rule*
24 *is issued.”.*

1 (2) *CLERICAL AMENDMENT.*—*The analysis for*
 2 *chapter 323 of title 49, United States Code, is amend-*
 3 *ed by striking the item relating to section 32304A*
 4 *and inserting the following:*

“32304A. *Consumer tire information and standards.*

“32304B. *Child safety.*”.

5 (b) *AWARENESS OF CHILDREN IN MOTOR VEHI-*
 6 *CLES.*—*Section 402 of title 23, United States Code, is*
 7 *amended by inserting after subsection (k) the following:*

8 “(l) *UNATTENDED PASSENGERS.*—

9 “(1) *IN GENERAL.*—*Each State may use a por-*
 10 *tion of the amounts it receives under this section to*
 11 *carry out a program to educate the public on the risks*
 12 *of leaving a child or unattended passenger in a vehi-*
 13 *cle after the vehicle motor is deactivated by the oper-*
 14 *ator.*

15 “(2) *PROGRAM PLACEMENT.*—*A State does not*
 16 *need to carry out the program described in paragraph*
 17 *(1) through the State transportation or highway safe-*
 18 *ty office.*”.

19 (c) *STUDY AND REPORT.*—

20 (1) *INDEPENDENT STUDY.*—

21 (A) *AGREEMENT.*—

22 (i) *IN GENERAL.*—*The Secretary shall*
 23 *enter into an agreement or a contract with*
 24 *an independent third-party that does not*

1 *have any financial or contractual ties with*
2 *passenger motor vehicle manufacturers or*
3 *technology companies producing child re-*
4 *minder alert systems to perform the services*
5 *under this paragraph.*

6 *(ii) TIMING.—The Secretary shall enter*
7 *into the agreement or contract described in*
8 *clause (i) not later than the date that the*
9 *Secretary determines is the latest date by*
10 *which completion of the services under this*
11 *paragraph will allow the Secretary enough*
12 *time to prepare and submit the study re-*
13 *quired under paragraph (2) in accordance*
14 *with such paragraph.*

15 *(B) INDEPENDENT STUDY.—*

16 *(i) IN GENERAL.—Under an agreement*
17 *between the Secretary and an independent*
18 *third-party under this paragraph, the inde-*
19 *pendent third-party shall carry out a study*
20 *on retrofitting existing passenger motor ve-*
21 *hicles, and add-on child restraint systems,*
22 *with technology to address the problem of*
23 *children left in rear designated seating posi-*
24 *tions of motor vehicles after the motor vehi-*

1 *cles have been deactivated by the operator of*
2 *the vehicle.*

3 *(ii) ELEMENTS.—In carrying out the*
4 *study required under clause (i), the inde-*
5 *pendent third-party shall—*

6 *(I) survey and evaluate a variety*
7 *of methods used by current and emerg-*
8 *ing aftermarket technology or products,*
9 *including add-on child restraint sys-*
10 *tems, to solve the problem of children*
11 *being left in a rear designated seating*
12 *position after the vehicle motor is de-*
13 *activated by the operator;*

14 *(II) make recommendations for*
15 *manufacturers of such technology or*
16 *products to undergo a functional safety*
17 *performance to ensure that the prod-*
18 *ucts, including add-on child restraint*
19 *systems, perform as designed by the*
20 *manufacturer under a variety of real*
21 *world conditions; and*

22 *(III) provide recommendations for*
23 *consumers on how to select such tech-*
24 *nology or products in order to retrofit*

1 *existing vehicles and for add-on child*
2 *restraint systems.*

3 (2) *REPORT.*—*During the 180-day period begin-*
4 *ning on the date on which the Secretary issues the*
5 *final rule required under section 32304B(b) of title*
6 *49, United States Code, as added by subsection (a)(1),*
7 *the Secretary shall submit the results of the study car-*
8 *ried out under paragraph (1) to the Committee on*
9 *Commerce, Science, and Transportation of the Senate*
10 *and the Committee on Energy and Commerce of the*
11 *House of Representatives.*

12 **SEC. 22. SAVINGS PROVISION.**

13 *Nothing in this Act may be construed to alter any ex-*
14 *isting authority under subtitle VI of title 49, United States*
15 *Code, relating to motor vehicles with a gross vehicle weight*
16 *of 10,001 pounds or more.*

Calendar No. 268

115TH CONGRESS
1ST Session

S. 1885

[Report No. 115-187]

A BILL

To support the development of highly automated vehicle safety technologies, and for other purposes.

NOVEMBER 28, 2017

Reported with an amendment