

Blumenthal 1 (modified)

Richard Blumenthal Ref

AMENDMENT NO. _____ Calendar No. _____

Purpose: To direct the Secretary of Transportation to issue a rule requiring all new passenger motor vehicles to be equipped with a child safety alert system.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Mr. BLUMENTHAL (for himself and Mr. WICKER)

Viz:

1 At the appropriate place, insert the following:

2 SEC. ____ . CHILD SAFETY.

3 (a) AMENDMENT.—

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

7 “§ 32304B. Child safety

8 “(a) DEFINITIONS.—In this section:

9 “(1) PASSENGER MOTOR VEHICLE.—The term
10 ‘passenger motor vehicle’ has the meaning given that
11 term in section 32101.



1 “(2) REAR DESIGNATED SEATING POSITION.—

2 The term ‘rear designated seating position’ means
3 designated seating positions that are rearward of the
4 front seat.

5 “(3) SECRETARY.—The term ‘Secretary’ means
6 the Secretary of Transportation.

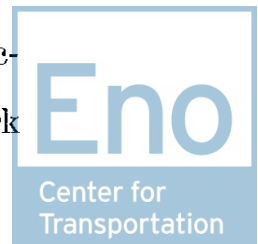
7 “(b) RULEMAKING.—Not later than 2 years after the
8 date of the enactment of the American Vision for Safer
9 Transportation through Advancement of Revolutionary
10 Technologies Act, the Secretary shall issue a final rule re-
11 quiring all new passenger motor vehicles weighing less
12 than 10,000 pounds gross vehicle weight to be equipped
13 with a system to alert the operator to check rear des-
14 ignated seating positions after the vehicle engine or motor
15 is deactivated by the operator.

16 “(c) MEANS.—The alert required under subsection
17 (b)—

18 “(1) shall include a distinct auditory and visual
19 alert, which may be combined with a haptic alert;
20 and

21 “(2) shall be activated when the vehicle motor
22 is deactivated by the operator.

23 “(d) ADD-ON CHILD RESTRAINT SYSTEMS.—In
24 issuing the final rule required by subsection (b), the Sec-
25 retary shall consider additional technologies that work



1 with add-on child restraint systems that achieve the same
2 purpose of alerting the driver in addition to the vehicle-
3 based system.

4 “(e) PHASE-IN.—The rule issued pursuant to sub-
5 section (b) shall require full compliance with the rule be-
6 ginning on September 1st of the first calendar year that
7 begins more than 30 months after the date on which the
8 final rule is issued.”.

9 (2) CLERICAL AMENDMENT.—The analysis for
10 chapter 323 of title 49, United States Code, is
11 amended by striking the item relating to section
12 32304A and inserting the following:

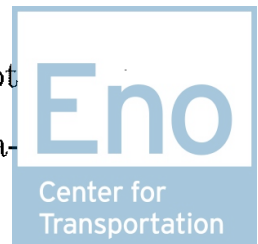
“32304A. Consumer tire information and standards.
“32304B. Child safety.”.

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

16 “(l) UNATTENDED PASSENGERS.—

17 “(1) IN GENERAL.—Each State may use a por-
18 tion of the amounts it receives under this section to
19 carry out a program to educate the public on the
20 risks of leaving a child or unattended passenger in
21 a vehicle after the vehicle motor is deactivated by
22 the operator.

23 “(2) PROGRAM PLACEMENT.—A State does not
24 need to carry out the program described in para-



1 graph (1) through the State transportation or high-
2 way safety office.”.

3 (e) STUDY AND REPORT.—

4 (1) INDEPENDENT STUDY.—

5 (A) AGREEMENT.—

6 (i) IN GENERAL.—The Secretary of
7 Transportation shall enter into an agree-
8 ment or a contract with an independent
9 third-party that does not have any finan-
10 cial or contractual ties with passenger
11 motor vehicle manufacturers or technology
12 companies producing child reminder alert
13 systems to perform the services under this
14 paragraph.

15 (ii) TIMING.—The Secretary shall
16 enter into the agreement or contract de-
17 scribed in clause (i) not later than the date
18 that the Secretary determines is the latest
19 date by which completion of the services
20 under this paragraph will allow the Sec-
21 retary enough time to prepare and submit
22 the study required under paragraph (2) in
23 accordance with such paragraph.

24 (B) INDEPENDENT STUDY.—

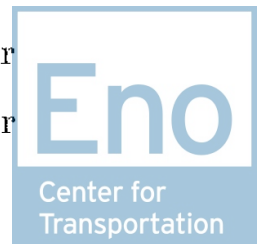


1 (i) IN GENERAL.—Under an agree-
2 ment between the Secretary and an inde-
3 pendent third-party under this paragraph,
4 the independent third-party shall carry out
5 a study on retrofitting existing passenger
6 motor vehicles, and add-on child restraint
7 systems, with technology to address the
8 problem of children left in rear designated
9 seating positions of motor vehicles after
10 the motor vehicles have been deactivated
11 by the operator of the vehicle.

12 (ii) ELEMENTS.—In carrying out the
13 study required under clause (i), the inde-
14 pendent third-party shall—

15 (I) survey and evaluate a variety
16 of methods used by current and
17 emerging aftermarket technology or
18 products, including add-on child re-
19 straint systems, to solve the problem
20 of children being left in a rear des-
21 ignated seating position after the vehi-
22 cle motor is deactivated by the oper-
23 ator;

24 (II) make recommendations for
25 manufacturers of such technology or



1 products to undergo a functional safe-
2 ty performance to ensure that the
3 products, including add-on child re-
4 straint systems, perform as designed
5 by the manufacturer under a variety
6 of real world conditions; and

7 (III) provide recommendations
8 for consumers on how to select such
9 technology or products in order to ret-
10 rofit existing vehicles and for add-on
11 child restraint systems.

12 (2) REPORT.—During the 180-day period be-
13 ginning on the date on which the Secretary of
14 Transportation issues the final rule required under
15 section 32304B(b) of title 49, United States Code,
16 as added by subsection (a)(1), the Secretary shall
17 submit the results of the study carried out under
18 paragraph (1) to the Committee on Commerce;
19 Science, and Transportation of the Senate and the
20 Committee on Energy and Commerce of the House
21 of Representatives.



Blumenthal_4 (as modified)



AMENDMENT NO. _____ Calendar No. _____

Purpose: To provide that highly automated vehicles are introduced and deployed gradually as such vehicles meet performance-based safety benchmarks.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENTS intended to be proposed by Mr. BLUMENTHAL (for himself and Mr. UDALL)

Viz:

1 On page 14, line 11, insert after “manufacturer.” the
2 following: “Before granting a renewal of an exemption or
3 otherwise increasing the number of highly automated vehi-
4 cles of a manufacturer that may be sold or introduced
5 under a previously granted exemption, the Secretary shall
6 evaluate the previous exemption and make a safety equiva-
7 lence finding consistent with paragraph (3).”.

8 On page 15, line 6, strike “50,000” and insert
9 “15,000”.



1 On page 15, line 12, strike “75,000” and insert
2 “40,000”.

3 On page 15, line 18, strike “100,000” and insert
4 “80,000”.

5 Beginning on page 15, strike line 24 and all that fol-
6 lows through page 16, line 2, and insert “more than
7 80,000 vehicles in any-12 month period after the exemp-
8 tion has been in place for 4 years.”; and”.





AMENDMENT NO. _____ Calendar No. _____

Purpose: To improve the bill.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Mr. BLUMENTHAL

Viz:

- 1 On page 16, line 10, insert after “shall end on” the
- 2 following: “the earlier of the date that is 10 years after
- 3 the date of the enactment of this Act or”.



Richard Blumenthal

AMENDMENT NO. _____ Calendar No. _____

Purpose: To include information comparing highly automated vehicles with non-highly automated vehicles in potential consumer education on advanced driver assistance and automated driving systems.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Mr. BLUMENTHAL

Viz:

- 1 On page 33, between lines 10 and 11, insert the fol-
- 2 lowing:
- 3 (2) identify recommended education and re-
- 4 sponsible marketing strategies that may be volun-
- 5 tarily employed by industry to inform consumers on
- 6 the comparative safety of highly automated vehicle
- 7 and non-highly automated vehicles driven by human
- 8 with respect to crashes, fatalities, and other injuries
- 9 (if known); and



Blumenthal_10 (as modified)

Richard Blumenthal Ref

AMENDMENT NO. _____ Calendar No. _____

Purpose: To require information comparing highly automated vehicles with non-highly automated vehicles in highly automated vehicle safety evaluation reports.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Mr. BLUMENTHAL

Viz:

- 1 On page 19, line 23, before the period, insert the fol-
- 2 lowing: “and aggregate results comparing the safety level
- 3 of the vehicle or system with a vehicle that is not highly
- 4 automated and is driven by a human driver”.



Blumenthal - 11

ARM17157

S.L.C.

Richard Blumenthal

AMENDMENT NO. _____ Calendar No. _____

Purpose: To modify the timing of public availability of highly automated vehicles safety evaluation reports.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Mr. BLUMENTHAL

Viz:

- 1 On page 24, line 5, strike “as soon as practicable”
- 2 and insert “not later than 60 days after receipt”.



Blumenthal_19 (as modified)



AMENDMENT NO. _____ Calendar No. _____

Purpose: To modify the provision relating to inoperative controls.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Mr. BLUMENTHAL

Viz:

1 On page 16, beginning on line 23, strike “allows” and
 2 all that follows through “equipment” on line 25, and in-
 3 sert the following: “causes a steering wheel, brake or ac-
 4 celerator pedals, a gear shift, or other feature or element
 5 of design related to the performance of the dynamic driv-
 6 ing task by a human operator”.



AMENDMENT NO. _____ Calendar No. _____

Purpose: To require the Secretary of Transportation (through the National Highway Traffic Safety Administration) to verify the SAE International level of automation designated by the manufacturer in the safety evaluation report for highly automated vehicles and automated driving systems.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Mr. BOOKER

Viz:

1 On page 20, line 2, strike “and” and all that follows
2 through “(B)” on line 3, and insert the following:

3 “(B) shall verify the manufacturer’s SAE
4 International level designation for the automa-
5 tion of the highly automated vehicle or auto-
6 mated driving system; and

7 “(C)



Duckworth-3

BAG17C96

S.L.C.

Tammy Duckworth

AMENDMENT NO. _____ Calendar No. _____

Purpose: To strike reference to performance from the pre-emption provisions.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENTS intended to be proposed by Ms. DUCKWORTH

Viz:

1 On page 4, lines 22 and 23, strike “design, construc-
2 tion, or performance” and insert “design or construction”.

3 On page 5, lines 23 and 24, strike “design, construc-
4 tion, or performance” and insert “design or construction”.



Duckworth - 4 (as modified)

EDW17366

S.L.C.

Tammy Duckworth

AMENDMENT NO. _____ Calendar No. _____

Purpose: To require the Secretary of Transportation to conduct a study on the transportation, mobility, environmental, energy security, and fuel economy impacts of highly automated vehicles on public roads.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Ms. DUCKWORTH

Viz: (for herself and Mr. Schatz)

1 At the appropriate place, insert the following:

2 SEC. ____ . HIGHLY AUTOMATED VEHICLE STUDY.

3 (a) IN GENERAL.—Not later than 60 days after the
4 date of enactment of this Act, the Secretary shall initiate
5 a study on the existing and future impacts of highly auto-
6 mated vehicles to transportation infrastructure, mobility,
7 the environment, and fuel consumption, including impacts
8 on—

9 (1) the Interstate System (as defined in section
10 101(a) of title 23, United States Code);

11 (2) urban areas;



- 1 (3) rural areas;
- 2 (4) transit systems;
- 3 (5) corridors with heavy traffic congestion;
- 4 (6) energy consumption and dependence;
- 5 (7) the connection between automated driving
- 6 systems and fuel consumption and emissions;
- 7 (8) transportation systems optimization;
- 8 (9) the role of vehicle-to-vehicle and vehicle-to-
- 9 infrastructure communications in transportation en-
- 10 ergy use;
- 11 (10) vehicle drivetrain selection and perform-
- 12 ance;
- 13 (11) congestion, crash avoidance, and emissions
- 14 implications for States and localities; and
- 15 (12) any other areas or issues that the Sec-
- 16 retary determines to be appropriate.
- 17 (b) CONTENTS OF STUDY.—The study under sub-
- 18 section (a) shall include specific recommendations regard-
- 19 ing the impacts of highly automated vehicles on—
- 20 (1) existing transportation system capacity;
- 21 (2) vehicle miles traveled;
- 22 (3) vehicle emissions;
- 23 (4) public transit and multimodal use;
- 24 (5) energy consumption and dependence; and
- 25 (6) land use.



1 (c) CONSIDERATIONS.—In carrying out the study, the
2 Secretary shall—

3 (1) determine the need for any policy changes
4 required by Federal agencies and legislative changes
5 to be considered by Congress; and

6 (2) include a discussion of—

7 (A) the impacts that highly automated ve-
8 hicles will place on existing transportation in-
9 frastructure, including signage and markings,
10 traffic lights, and highway capacity and design;

11 (B) the implications of shared fleet and al-
12 ternative vehicle ownership models;

13 (C) the impact on commercial and private
14 traffic flows;

15 (D) infrastructure improvement needs that
16 may be necessary to accommodate highly auto-
17 mated vehicles, including potential energy
18 needs;

19 (E) the impact of highly automated vehi-
20 cles on the environment, energy needs, conges-
21 tion, and vehicle miles traveled; and

22 (F) the impact of highly automated vehi-
23 cles on mobility and public transit use in urban,
24 suburban, and rural areas, including pedestrian
25 and bicycle transportation modes.



1 (d) COORDINATION.—In carrying out the study, the
2 Secretary shall consider and incorporate relevant current
3 and ongoing research of the Department of Transpor-
4 tation.

5 (e) CONSULTATION.—In carrying out the study, the
6 Secretary shall convene and consult with a panel of na-
7 tional experts, including—

8 (1) operators and users of the Interstate Sys-
9 tem (as defined in section 101(a) of title 23, United
10 States Code), including private sector stakeholders;

11 (2) States;

12 (3) metropolitan planning organizations;

13 (4) the motor carrier industry;

14 (5) representatives of public transportation
15 agencies or organizations;

16 (6) highway safety and academic groups;

17 (7) nonprofit entities with experience in energy
18 security and transportation policy;

19 (8) National Laboratories (as defined in section
20 2 of the Energy Policy Act of 2005 (42 U.S.C.
21 15801));

22 (9) environmental stakeholders; and

23 (10) highly automated vehicle producers, manu-
24 facturers, and technology developers.



1 (f) REPORT.—Not later than 18 months after the
2 date on which the study under subsection (a) is initiated,
3 the Secretary shall submit to Congress a report on the
4 results of the study.

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



Duckworth - 5 (as modified)

MDM17C21

S.L.C.



AMENDMENT NO. _____

Calendar No. _____

Purpose: To clarify the duties of the consumer education working group.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Ms. DUCKWORTH

Viz:

- 1 On page 33, line 4 insert “and programs” after
- 2 “strategies”.



Duckworth-6 (as modified)

MDM17C22

S.L.C.

Tammy Duckworth

AMENDMENT NO. _____ Calendar No. _____

Purpose: To expand the membership of the consumer education working group to include safety organizations and organizations with experience in drivers' education.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENTS intended to be proposed by Ms. DUCKWORTH

Viz:

- 1 On page 35, line 7, strike “; and” and insert the fol-
- 2 lowing: “, including drivers' education;”

- 3 On page 35, between lines 9 and 10, insert the fol-
- 4 lowing:
- 5 (xi) safety organizations; and



Duckworth - 8 (as modified)

MDM17B84

S.L.C.

Tammy Duckworth

AMENDMENT NO. _____ Calendar No. _____

Purpose: To expand the scope of the highly automated vehicle safety study to be conducted by the Highly Automated Vehicles Technical Committee to include safeguards against the misuse of such vehicles.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Ms. DUCKWORTH

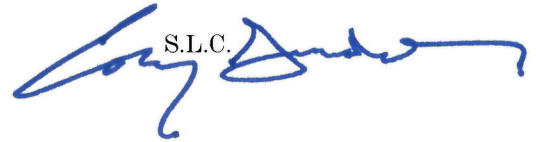
Viz:

- 1 On page 28, line 3, insert ¹⁶ "including safeguards against misuse" ~~and safeguards against~~
- 2 ~~misuse~~ after "system safety". _{appropriate}



GARDNER - 1

HEY17764

S.L.C.


AMENDMENT NO. _____ Calendar No. _____

Purpose: To include in the safety evaluation report matters relating to avoidance of risk caused by a malfunction of a component of the automated driving system.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Mr. GARDNER

Viz:

- 1 On page 20, line 24, insert before the semicolon the
- 2 following: “, including any component therein”.



AMENDMENT NO. _____ Calendar No. _____

Purpose: To include employee training among the requirements to be included in manufacturers' cybersecurity plans.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Mr. GARDNER (for himself and Ms. Cortez-Masto)

Viz:

- 1 On page 39, line 6, strike "and" and all that follows
- 2 through "(G)" on line 7, and insert the following:
- 3 (G) employee training on the implementa-
- 4 tion of and compliance with the requirements
- 5 under this paragraph; and
- 6 (H)



Hassan_4 (Mod_2)



AMENDMENT NO. _____

Calendar No. _____

Purpose: To improve supply chain cybersecurity

IN THE SENATE OF THE UNITED STATES—115TH CONG.,1ST SESS.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENTS intended to be proposed by MS. HASSAN

Viz:

1 On page 21, line 20, insert “, including evaluation of
2 elements of the supply chain to identify and address
3 cybersecurity vulnerabilities” after “to safety”.

4 On page 39, between lines 3 and 4, insert the following:
5 (F) the evaluation of elements of the supply chain
6 to identify and address cybersecurity vulnerabilities;



Inhofe - 2 (mod)

MDM17C25

S.L.C.


AMENDMENT NO. _____ Calendar No. _____

Purpose: To establish the HAV Data Access Advisory Committee to provide recommendations to Congress with respect to cybersecurity issues relating to highly automated vehicles, and for other purposes.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENTS intended to be proposed by Mr. INHOFE (for himself, Mr. BLUNT, Mr. MORAN, Mr. HELLER, and Ms. BALDWIN)

Viz:

1 On page 28, lines 8 and 9, strike “and data access
2 and sharing”.

3 On page 41, strike line 6 and insert the following:

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

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

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



1 (1) COMMITTEE.—The term “Committee”
2 means the HAV Data Access Advisory Committee
3 established pursuant to subsection (d)(1).

4 (2) HAV.—The term “HAV” means highly
5 automated vehicle.

6 (c) FEDERAL REGULATION OF HAV DATA AC-
7 CESS.—

8 (1) TEMPORARY RULEMAKING RESTRICTION.—
9 No department or administrative agency of the Fed-
10 eral Government may promulgate any regulation
11 with respect to the ownership of, control of, or ac-
12 cess to, information or data stored by, or generated
13 by, a highly automated vehicle or automated driving
14 system before the report required under section
15 (d)(4) is submitted to Congress.

16 (2) SAVINGS PROVISIONS.—Nothing in this sub-
17 section may be construed to prevent the Federal
18 Government from carrying out its responsibilities
19 under the Driver Privacy Act of 2015 (49 U.S.C.
20 30101 note).

21 (d) HAV DATA ACCESS ADVISORY COMMITTEE.—

22 (1) ESTABLISHMENT.—Not later than 180 days
23 after the date of the enactment of this Act, the Sec-
24 retary shall establish the HAV Data Access Advisory
25 Committee to provide a forum for stakeholders to



1 discuss and make policy recommendations to Con-
2 gress with respect to the ownership of, control of, or
3 access to, information or data that vehicles collect,
4 generate, record, or store in an electronic form that
5 is retrieved from a highly automated vehicle or auto-
6 mated driving system.

7 (2) MEMBERSHIP.—

8 (A) VOTING MEMBERS.—The Committee
9 shall be composed of the following voting mem-
10 bers:

11 (i) The Secretary or the Secretary's
12 designee.

13 (ii) The Chairman of the Federal
14 Trade Commission or the Chairman's des-
15 ignee.

16 (iii) A representative of State govern-
17 ments.

18 (iv) A representative of local govern-
19 ments.

20 (v) A representative of metropolitan
21 planning organizations.

22 (vi) A representative of transit agen-
23 cies.

24 (vii) A representative of law enforce-
25 ment.



1 (viii) A representative of HAV manu-
2 facturers.

3 (ix) A representative of HAV equip-
4 ment manufacturers.

5 (x) A representative of HAV dealers.

6 (xi) A representative of aftermarket
7 parts manufacturers, distributors, and re-
8 tailers.

9 (xii) A representative of independent
10 vehicle repairers.

11 (xiii) A representative of consumer
12 safety advocates with privacy expertise.

13 (xiv) A representative of consumer
14 safety advocates with safety expertise.

15 (xv) A representative of property and
16 casualty insurers.

17 (xvi) A representative of long-term
18 motor vehicle fleet leasing and manage-
19 ment companies or professionals.

20 (xvii) A representative of short-term
21 motor vehicle fleet management or rental
22 companies.

23 (xviii) A representative of mobility on
24 demand companies.



1 (xix) A representative of motor coach
2 and tour bus owners.

3 (B) NON-VOTING MEMBERS.—The Sec-
4 retary may allow additional interested stake-
5 holders to attend and participate in the activi-
6 ties of the Committee as non-voting members.

7 (3) MEETINGS.—The Committee shall meet not
8 less frequently than 4 times per year.

9 (4) REPORT.—

10 (A) IN GENERAL.—Not later than 2 years
11 after the Committee is established pursuant to
12 paragraph (1), the Committee shall submit a
13 report to the Committee on Commerce, Science,
14 and Transportation of the Senate and the Com-
15 mittee on Energy and Commerce of the House
16 of Representatives that contains recommenda-
17 tions, supported by at least 2/3 of all voting
18 members. Such report shall include rec-
19 ommendations regarding the ownership of, con-
20 trol of, or access to, information or data that
21 vehicles collect, generate, record, or store in an
22 electronic form that is retrieved from a highly
23 automated vehicle or automated driving system,
24 and may include minority views, if applicable.



1 (B) CONSIDERATIONS.—When making any
2 policy recommendations, the Committee shall
3 give appropriate consideration to motor vehicle
4 safety, intellectual property protections, compli-
5 ance with requirements under the Motor Vehicle
6 Safety Act, customer privacy, cybersecurity,
7 confidential business information related to the
8 mechanical or computer systems of such vehi-
9 cles, public safety, and transportation planning.

10 Recommendations should address—

11 (i) an owner’s or registered user’s per-
12 sonally identifiable information;

13 (ii) vehicle-generated data; and

14 (iii) vehicle interface capability.

15 (5) COMPENSATION.—Members of the Com-
16 mittee shall serve without compensation.

17 (6) SUPPORT.—The Office of Rulemaking of
18 the National Highway Traffic Safety Administration
19 and the Bureau of Consumer Protection of the Fed-
20 eral Trade Commission shall provide support serv-
21 ices to the Committee.

22 (7) TERMINATION.—The Committee shall ter-
23 minate upon the submission of the report required
24 under paragraph (4).



1 (e) GAO STUDY ON REMOVAL OF PERSONAL DATA
2 FROM VEHICLE INFORMATION SYSTEMS.—

3 (1) STUDY.—

4 (A) IN GENERAL.—The Comptroller Gen-
5 eral of the United States shall conduct a study
6 of the technologies currently available to remove
7 data that may be personally identifiable or at-
8 tributable to an individual from used motor ve-
9 hicles upon their sale to a new owner or from
10 leased or rented vehicles at the completion of
11 the lease or rental contract.

12 (B) UNIFORM DATA REMOVAL AP-
13 PROACH.—The study conducted under subpara-
14 graph (A) shall assess the feasibility of adopt-
15 ing a uniform and simple approach across vehi-
16 cle brands for the removal of data described in
17 subparagraph (A) when a vehicle is sold or a
18 lease or rental ends.

19 (C) CONSULTATION.—In conducting the
20 study under subparagraph (A), the Comptroller
21 General shall consult with—

22 (i) vehicle manufacturers;

23 (ii) consumer groups;



1 (iii) vehicle dealers, including rep-
2 resentatives of the vehicle leasing and vehi-
3 cle rental industry; and

4 (iv) other stakeholders.

5 (2) REPORT.—Not later than 1 year after the
6 date of the enactment of this Act, the Comptroller
7 General of the United States shall submit a report
8 to the Committee on Commerce, Science, and Trans-
9 portation of the Senate and the Committee on En-
10 ergy and Commerce of the House of Representatives
11 that contains the result of the study conducted
12 under subsection (a), including recommendations re-
13 garding—

14 (A) the feasibility of adopting a uniform
15 data removal approach; and

16 (B) legislative action that the Comptroller
17 General may consider prudent and practicable
18 for facilitating the consistent removal of data
19 described in subparagraph (A).

20 **SEC. 16. SAVINGS PROVISION.**



Klobuchar - 1 (modified)

Amy Klobuchar

AMENDMENT NO. _____ Calendar No. _____

Purpose: To specify an additional issue to be studied by the Highly Automated Vehicles Technical Committee.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Ms. KLOBUCHAR *

*MS. Hassan,
MS. Duckworth*

Viz:

- 1 On page 28, between lines 9 and 10, insert the fol-
- 2 lowing:
- 3 (E) vehicle communication with roadway
- 4 and infrastructure assets, including pavement
- 5 markings, signage, and traffic signals;



Klobuchar - 2 (modified)

Amy Klobuchar

AMENDMENT NO. _____

Calendar No. _____

Purpose: To specify additional information on cybersecurity to be included in highly automated vehicles safety evaluation reports.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Ms. KLOBUCHAR

Viz:

- 1 On page 21, line 23, insert before the period the fol-
- 2 lowing: “, and mechanisms for alerting the human driver
- 3 or operator about cyber vulnerabilities”.



AMENDMENT NO. _____ Calendar No. _____

Purpose: To require the establishment of a motor vehicle privacy database.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Mr. MARKEY

Viz:

- 1 At the appropriate place, insert the following:
- 2 **SEC. ____ . PRIVACY PROTECTIONS FOR USERS OF MOTOR**
- 3 **VEHICLES.**
- 4 ~~(c) PERSONALLY IDENTIFIABLE INFORMATION DE-~~
- 5 ~~FINED.— In this section, the term “personally identifiable~~
- 6 ~~information” means any information about an individual,~~
- 7 ~~or any information that is linked or reasonably linkable~~
- 8 ~~to an individual, including the following:~~
- 9 (1) ~~The name of a user of a motor vehicle.~~
- 10 (2) ~~The address of a user of a motor vehicle.~~
- 11 (3) ~~The geographical location of the motor vehi-~~
- 12 ~~cle.~~



1 ~~(4) A photograph, video, or audio recording,~~
 2 ~~that contains the image or voice of a user of a motor~~
 3 ~~vehicle.~~

4 ~~(5) Indirect identifiers, including a motor vehi-~~
 5 ~~cle user's date of birth, place of birth, Social Secu-~~
 6 ~~rity number, biometric record, telephone number,~~
 7 ~~credit card account number, insurance information,~~
 8 ~~persistent identifier, email address, social media ad-~~
 9 ~~dress, or other electronic address.~~

10 ~~(6) An aggregate or de-identified data of a~~
 11 ~~user of a motor vehicle that, through reasonable eff-~~
 12 ~~ort, is capable of being disaggregated or recon-~~
 13 ~~structed to the point that an individual user of a~~
 14 ~~motor vehicle can be identified.~~

15 ~~(7) Any data of a user of a motor vehicle or~~
 16 ~~other information that, alone or in combination, is~~
 17 ~~linked or linkable to a specific user of a motor vehi-~~
 18 ~~cle that would allow a reasonable person, who does~~
 19 ~~not have personal knowledge of the relevant cir-~~
 20 ~~cumstances, to identify a user of a motor vehicle~~
 21 ~~with reasonable certainty.~~

22 ^a (V) MOTOR VEHICLE PRIVACY DATABASE.—Begin-
 23 ning not later than 1 year after the date of the enactment
 24 of this Act, the Administrator of the National Highway
 25 Traffic Safety Administration shall—



1 (1) create a publicly accessible and easily
2 searchable online database that contains the infor-
3 mation described in subsection (c); and

4 (2) place a ~~clear and conspicuous~~ link to the
5 database described in paragraph (1) on the home
6 page of the National Highway Traffic Safety Admin-
7 istration's website.

8 (c) CONTENTS.—The database described in sub-
9 section (b)(1) shall contain—

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

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

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

21 (B) the period during which such informa-
22 tion will be retained; and

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



1 (3) steps that will be used to protect against
2 the unauthorized disclosure of any personally identi-
3 fiable information, such as the use of encryption
4 methods and other security features; and

5 (4) the privacy policies of manufacturers of
6 motor vehicles, including whether consumers will
7 have the right to stop the collection, use, distribu-
8 tion, or sale of their personally identifiable informa-
9 tion.



Markey-2 (Modified)

BAG17D46

Edward J. Markey

S.L.C.

AMENDMENT NO. _____ Calendar No. _____

Purpose: To require the Secretary of Transportation to promulgate a rule on information to be provided consumers at the point of sale on the capabilities and limitations of highly automated vehicles and automated driving systems.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Mr. MARKEY (for himself, Ms. DUCKWORTH, and Ms. KLOBUCHAR)

Mr. Blumenthal
Mr. Udall

Viz:

1 On page 35, between lines 20 and 21, insert the following:
2

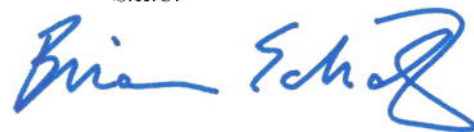
3 (f) RULEMAKING ON POINT OF SALE INFORMATION.—Not later than 3 years after the date of the enactment of this Act, the Secretary shall promulgate a rule
4 to require clear and concise information about the capabilities and limitations of a highly automated vehicle or
5 an automated driving system to be provided to a consumer
6 at the point of sale and in the vehicle owner’s manual.
7
8
9



Schatz-2

BAG17C82

S.L.C.



AMENDMENT NO. _____ Calendar No. _____

Purpose: To require manufacturers of highly automated vehicles or automated driving systems to publish summaries of their plans to identify and reduce cybersecurity risks to the motor vehicle safety of such vehicles and systems.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Mr. SCHATZ

Viz:

- 1 Beginning on page 39, strike line 22 and all that fol-
- 2 lows through page 40, line 2, and insert the following:
- 3 “(4) PROTECTIONS FOR DISCLOSURE.—Each
- 4 manufacturer required to develop, maintain, and
- 5 execute a plan under paragraph (1) shall develop a
- 6 summary of the plan that is suitable for public dis-
- 7 closure and disclose such summary to the public.



Schatz - 3



AMENDMENT NO. _____

Calendar No. _____

Purpose: To require the working group on responsible education efforts for advanced driver assist systems and automated driving systems to consider topics pertaining to consumer data collection, privacy, and data ownership.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Mr. SCHATZ

Viz:

- 1 On page 34, strike lines 4 through 6 and insert the
- 2 following:
- 3 function behavior in service;
- 4 (8) consistent nomenclature and taxonomy for
- 5 safety features and systems; and
- 6 (9) disclosure of automated driving system
- 7 practices pertaining to consumer data collection, pri-
- 8 vacy, and data ownership.

on page 35, line 9 insert: national cross disability organizations and national organizations representing older adults



Schatz 4

Brian Schatz

AMENDMENT NO. _____ Calendar No. _____

Purpose: To diversify the Highly Automated Vehicles Technical Committee.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENTS intended to be proposed by Mr. SCHATZ

Viz:

1 On page 26, line 23, strike “include representatives
2 of” and insert “include at least 1 representative from”.

3 On page 27, line 3, insert “national organizations
4 that represent individuals with disabilities and ~~senior citizens~~ *older adults*
5 ~~citizens~~,” after “organizations,”.



Udall-1 (Modified)

ROS17C03

S.L.C.
Tom Udall

AMENDMENT NO. _____ Calendar No. _____

Purpose: To require the Secretary of Transportation to conduct a study on encouraging manufacturing in the United States of automated driving equipment and intelligent transportation solutions.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 1885

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

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Mr. UDALL

Viz:

1 At the end, add the following:

2 **SEC. ____ . STUDY ON ENCOURAGING MANUFACTURING IN**

3 **THE UNITED STATES OF AUTOMATED DRIV-**

4 **ING EQUIPMENT AND INTELLIGENT TRANS-**

5 **PORTATION SOLUTIONS.**

6 (a) **IN GENERAL.**—The Secretary shall conduct a

7 study on ways to encourage manufacturing in the United

8 States of automated driving equipment, intelligent trans-

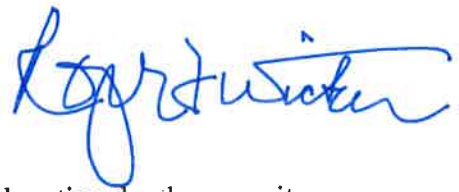
9 portation solutions, and other equipment, including hard-

10 ware and processors.



1 (b) RECOMMENDATIONS.—In conducting the study
2 required by subsection (a), the Secretary shall develop rec-
3 ommendations for methods to incentivize manufacturing
4 in the United States of automated driving equipment, in-
5 telligent transportation solutions, and other equipment, in-
6 cluding hardware and processors, including through the
7 use of grant programs and other funding sources.





1 Purpose: To require the Secretary of Transportation to develop educational cybersecurity
2 resources to assist consumers in minimizing motor vehicle cybersecurity risks and to require
3 manufacturers to include information directing consumers to the such resources on new car
4 window labels.

5
6
7 S. 1885

8
9 To support the development of highly automated vehicle safety
10 technologies, and for other purposes.

11
12 Referred to the Committee on _____ and ordered to be
13 printed

14 Ordered to lie on the table and to be printed

15 AMENDMENT INTENDED TO BE PROPOSED BY MR. WICKER

16 Viz:

17 On page 41, between lines 5 and 6, insert the following:

18 **SEC. 15. CYBERSECURITY CONSUMER EDUCATION**
19 **INFORMATION.**

20 (a) In General.—Not later than 1 year after the date of the enactment of this Act, the Secretary
21 of Transportation shall—

22 (1) develop educational cybersecurity resources to assist consumers in maintaining
23 awareness of and minimizing potential motor vehicle cybersecurity risks; and

24 (2) ensure that the resources developed under paragraph (1) are available to and readily
25 accessible by the public on the website of the National Highway Traffic Safety
26 Administration.

27 (b) Periodic Updates.—The Secretary shall periodically update the resources developed under
28 subsection (a).

29 (c) Consultation.—In developing the resources under subsection (a), the Secretary shall
30 consult with motor vehicle industry representatives, safety organizations, security researchers,
31 the National Institute of Standards and Technology, and State and local government agencies that
32 are directly or indirectly affected by this Act.

33 **SEC. 16. PROVISION OF CYBERSECURITY RESOURCE**
34 **INFORMATION.**



- 1 (a) Provision - manufacturers of motor vehicles shall include information directing consumers
- 2 to the cybersecurity resources developed by the Secretary of Transportation under section 15 in
- 3 motor vehicle owners' manuals or on the manufacturer's website that is publicly available and
- 4 accessible to consumers.
- 5

