

117TH CONGRESS
1ST SESSION

S. _____

To direct the Secretary of the Army and the Secretary of the Navy to carry out a pilot program on using data recorders to improve the readiness and safety of the operation of military tactical vehicles.

IN THE SENATE OF THE UNITED STATES

Mr. VAN HOLLEN introduced the following bill; which was read twice and referred to the Committee on _____

A BILL

To direct the Secretary of the Army and the Secretary of the Navy to carry out a pilot program on using data recorders to improve the readiness and safety of the operation of military tactical vehicles.

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.**

4 This Act may be cited as the “1st Lt. Hugh Conor
5 McDowell Safety in Armed Forces Equipment Act of
6 2021”.

1 **SEC. 2. PILOT PROGRAM FOR TACTICAL VEHICLE SAFETY**

2 **DATA COLLECTION.**

3 (a) **IN GENERAL.**—Not later than one year after the
4 date of the enactment of this Act, the Secretary of the
5 Army and the Secretary of the Navy shall jointly carry
6 out a pilot program to evaluate the feasibility of using
7 data recorders to monitor, assess, and improve the readi-
8 ness and safety of the operation of military tactical vehi-
9 cles.

10 (b) **PURPOSES.**—The purposes of the pilot program
11 are—

12 (1) to allow for the automated identification of
13 hazards and potential hazards on and off military
14 installations;

15 (2) to mitigate and increase awareness of haz-
16 ards and potential hazards on and off military in-
17 stallations;

18 (3) to identify near-miss accidents;

19 (4) to create a standardized record source for
20 accident investigations;

21 (5) to assess individual driver proficiency, risk,
22 and readiness;

23 (6) to increase consistency in the implementa-
24 tion of military installation and unit-level range safe-
25 ty programs across military installations and units;

1 (7) to evaluate the feasibility of incorporating
2 metrics generated from data recorders into the safe-
3 ty reporting systems and to the Defense Readiness
4 Reporting System as a measure of assessing safety
5 risks, mitigations, and readiness;

6 (8) to determine the costs and benefits of retro-
7 fitting data recorders on legacy platforms and in-
8 cluding data recorders as a requirement in acquisi-
9 tion of military tactical vehicles; and

10 (9) any other matters as determined by the
11 Secretary concerned.

12 (c) REQUIREMENTS.—In carrying out the pilot pro-
13 gram, the Secretary of the Army and the Secretary of the
14 Navy shall—

15 (1) assess the feasibility of using commercial
16 technology, such as smartphones or technologies
17 used by insurance companies, as a data recorder;

18 (2) test and evaluate a minimum of two data
19 recorders that meet the pilot program requirements;

20 (3) select a data recorder capable of collecting
21 and exporting the telemetry data, event data, and
22 driver identification during operation and accidents;

23 (4) install and maintain a data recorder on a
24 sufficient number of each of the military tactical ve-
25 hicles listed under subsection (f) at installations se-

1 lected by the Secretary concerned under subsection
2 (e) for statistically significant results;

3 (5) establish and maintain a database that con-
4 tains telemetry data, driver data, and event data
5 captured by the data recorder;

6 (6) regularly generate for each installation se-
7 lected under subsection (e) a dataset that is viewable
8 in widely available mapping software of hazards and
9 potential hazards based on telemetry data and event
10 data captured by the data recorders;

11 (7) generate actionable data sets and statistics
12 on individual, vehicle, and military installation;

13 (8) require commanders at the installations se-
14 lected under subsection (e) to incorporate the action-
15 able data sets and statistics into the installation
16 range safety program;

17 (9) require unit commanders at the installations
18 selected under subsection (e) to incorporate the ac-
19 tionable data sets and statistics into the unit driver
20 safety program;

21 (10) evaluate the feasibility of integrating data
22 sets and statistics to improve driver certification and
23 licensing based on data recorded and generated by
24 the data recorders;

1 (11) use open architecture to the maximum ex-
2 tent practicable; and

3 (12) carry out any other activities determined
4 by the Secretary as necessary to meet the purposes
5 under subsection (b).

6 (d) IMPLEMENTATION PLAN.—Not later than 180
7 days after the date of the enactment of this Act, the Sec-
8 retary of the Army and the Secretary of the Navy shall
9 develop a plan for implementing the pilot program.

10 (e) LOCATIONS.—Each Secretary concerned shall
11 carry out the pilot program at not fewer than one military
12 installation in the United States selected by the Secretary
13 concerned that meets the following conditions:

14 (1) Contains the necessary force structure,
15 equipment, and maneuver training ranges to collect
16 driver and military tactical vehicle data during train-
17 ing and routine operation.

18 (2) Represents at a minimum one of the five
19 training ranges identified in the study by the Comp-
20 troller General of the United States titled “Army
21 and Marine Corps Should Take Additional Actions
22 to Mitigate and Prevent Training Accidents” that
23 did not track unit location during the training
24 events.

1 (f) COVERED MILITARY TACTICAL VEHICLES.—The
2 pilot program shall cover the following military tactical ve-
3 hicles:

4 (1) Army Strykers.

5 (2) Marine Corps Light Armored Vehicles.

6 (3) Army Medium Tactical Vehicles.

7 (4) Marine Corps Medium Tactical Vehicle Re-
8 placements.

9 (g) METRICS.—The Secretaries shall develop metrics
10 to evaluate the effectiveness of the pilot program in moni-
11 toring, assessing, and improving vehicle safety, driver
12 readiness, and mitigation of risk.

13 (h) REPORTS.—

14 (1) INITIAL.—Not later than 180 days after the
15 date of the enactment of this Act, the Secretary of
16 the Army and the Secretary of the Navy shall jointly
17 submit to the congressional defense committees a re-
18 port on the pilot program that addresses the plan
19 for implementing the requirements under subsection
20 (c), including the established metrics under sub-
21 section (g).

22 (2) INTERIM.—Not later than three years after
23 the commencement of the pilot program, the Sec-
24 retary of the Army and the Secretary of the Navy
25 shall jointly submit to the congressional defense

1 committees a report on the status of the pilot pro-
2 gram, including the preliminary results in carrying
3 out the pilot program, the metrics generated during
4 the pilot program, disaggregated by military tactical
5 vehicle, location, and service, and the implementa-
6 tion plan under subsection (d).

7 (3) FINAL.—

8 (A) IN GENERAL.—Not later than 90 days
9 after the termination of the pilot program, the
10 Secretary of the Army and the Secretary of the
11 Navy shall jointly submit to the congressional
12 defense committees a report on the results of
13 the program.

14 (B) ELEMENTS.—The report required by
15 subparagraph (A) shall—

16 (i) assess the effectiveness of the pilot
17 program in meeting the purposes under
18 subsection (b);

19 (ii) include the metrics generated dur-
20 ing the pilot program, disaggregated by
21 military tactical vehicle, location, and serv-
22 ice;

23 (iii) include the views of range per-
24 sonnel, unit commanders, and members of
25 the Armed Forces involved in the pilot pro-

1 gram on the level of effectiveness of the
2 technology selected;

3 (iv) provide a cost estimate for equip-
4 ping legacy military tactical vehicles with
5 data recorders;

6 (v) determine the instances in which
7 data recorders should be a requirement in
8 the acquisition of military tactical vehicles;

9 (vi) recommend whether the pilot pro-
10 gram should be expanded or made into a
11 program of record; and

12 (vii) recommend any statutory, regu-
13 latory, or policy changes required to sup-
14 port the purposes under subsection (b).

15 (i) TERMINATION.—The authority to carry out the
16 pilot program under subsection (a) shall terminate five
17 years after the date of the enactment of this Act.

18 (j) DEFINITIONS.—In this section:

19 (1) ACCIDENT.—The term “accident” means a
20 collision, rollover, or other mishap involving a motor
21 vehicle.

22 (2) CONGRESSIONAL DEFENSE COMMITTEES.—
23 The term “congressional defense committees” has
24 the meaning given that term in section 101(a)(16)
25 of title 10, United States Code.

1 (3) DATA RECORDER.—The term “data re-
2 recorder” means technologies installed in a motor ve-
3 hicle to record driver identification, telemetry data,
4 and event data related to the operation of the motor
5 vehicle.

6 (4) DRIVER IDENTIFICATION.—The term “driv-
7 er identification” means data enabling the unique
8 identification of the driver operating a motor vehicle.

9 (5) EVENT DATA.—The term “event data” in-
10 cludes data related to—

11 (A) the start and conclusion of each vehicle
12 operation;

13 (B) a vehicle accident;

14 (C) a vehicle acceleration, velocity, or loca-
15 tion with an increased potential for an accident;

16 or

17 (D) a vehicle orientation with an increased
18 potential for an accident.

19 (6) SECRETARY CONCERNED.—The term “Sec-
20 retary concerned” means—

21 (A) the Secretary of the Army with respect
22 to matters concerning the Army; and

23 (B) the Secretary of the Navy with respect
24 to matters concerning the Navy and Marine
25 Corps.

- 1 (7) TELEMETRY DATA.—The term “telemetry
2 data” includes—
- 3 (A) time;
 - 4 (B) vehicle distance traveled;
 - 5 (C) vehicle acceleration and velocity;
 - 6 (D) vehicle orientation, including roll,
7 pitch, and yaw; and
 - 8 (E) vehicle location in a geographic coordi-
9 nate system, including elevation.