

117TH CONGRESS  
1ST SESSION

# H. R. 5108

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.

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## IN THE HOUSE OF REPRESENTATIVES

AUGUST 27, 2021

Mr. BROWN (for himself and Mr. WITTMAN) introduced the following bill;  
which was referred to the Committee on Armed Services

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## 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 Secretaries shall—

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

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

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

22           (4) install and maintain a data recorder on a  
23 sufficient number of each of the covered military  
24 tactical vehicles under subsection (f) at selected in-  
25 stallations for statistically significant results;

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

4           (6) regularly generate for each installation  
5           under the pilot program a dataset that is viewable  
6           in widely available mapping software of hazards and  
7           potential hazards based on telemetry data and event  
8           data captured by the data recorders;

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

11          (8) require commanders at the covered military  
12          installations to incorporate the actionable data sets  
13          and statistics into the installation range safety pro-  
14          gram;

15          (9) require unit commanders at the covered  
16          military installations to incorporate the actionable  
17          data sets and statistics into unit driver safety pro-  
18          gram;

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

23          (11) use open architecture to the maximum ex-  
24          tent practicable; and

1           (12) any other activities determined by the Sec-  
2           retary as necessary to meet the purposes under sub-  
3           section (b).

4           (d) IMPLEMENTATION PLAN.—Not later than 180  
5           days after the date of the enactment of this Act, the Secre-  
6           taries shall develop a plan for implementing the pilot pro-  
7           gram required under this section.

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

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

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

23           (f) COVERED MILITARY TACTICAL VEHICLES.—The  
24           pilot program shall cover the following military tactical ve-  
25           hicles:

1 (1) Army Strykers.

2 (2) Marine Corps Light Armored Vehicles.

3 (3) Army Medium Tactical Vehicles.

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

6 (g) METRICS.—The Secretaries shall develop metrics  
7 to evaluate the pilot program’s effectiveness in monitoring,  
8 assessing, and improving vehicle safety, driver readiness,  
9 and mitigation of risk.

10 (h) REPORTS.—

11 (1) INITIAL.—Not later than 180 days after the  
12 date of the enactment of this Act under this section,  
13 the Secretaries shall jointly submit to the congress-  
14 sional defense committees a report on the pilot pro-  
15 gram, addressing the plan for implementing the re-  
16 quirements in subsection (c), including the estab-  
17 lished metrics under subsection (g).

18 (2) INTERIM.—Not later than three years after  
19 the commencement of the pilot program, the Secre-  
20 taries shall jointly submit to the congressional de-  
21 fense committees a report on the status of the pilot  
22 program, including the preliminary results in car-  
23 rying out the pilot program, the metrics generated  
24 during the pilot program, disaggregated by military

1 tactical vehicle, location, and service, and the imple-  
2 mentation plan under subsection (d).

3 (3) FINAL.—Not later than 90 days after the  
4 termination of the pilot program, the Secretaries  
5 shall jointly submit to the congressional defense  
6 committees a report on the results of the program.

7 The report shall—

8 (A) assess the pilot program’s effectiveness  
9 in meeting the purposes under subsection (b);

10 (B) include the metrics generated during  
11 the pilot program, disaggregated by military  
12 tactical vehicle, location, and service;

13 (C) include the views of range personnel,  
14 unit commanders, and members of the Armed  
15 Forces involved in the pilot program on the  
16 level of effectiveness of the technology selected;

17 (D) provide a cost estimate for equipping  
18 legacy military tactical vehicles with data re-  
19 corders;

20 (E) determine the instances in which data  
21 recorders should be a requirement in the acqui-  
22 sition of military tactical vehicles;

23 (F) recommend whether the pilot program  
24 should be expanded or made into a program of  
25 record; and

1 (G) recommend any statutory, regulatory,  
2 or policy changes required to support the pur-  
3 poses under subsection (b).

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

7 (j) DEFINITIONS.—In this section:

8 (1) The term “accident” means a collision, roll-  
9 over, or other mishap involving a motor vehicle.

10 (2) The term “data recorder” means tech-  
11 nologies installed in a motor vehicle to record driver  
12 identification, telemetry data, and event data related  
13 to the operation of such motor vehicle.

14 (3) The term “driver identification” means data  
15 enabling the unique identification of the driver oper-  
16 ating the motor vehicle.

17 (4) The term “event data” includes data related  
18 to—

19 (A) the start and conclusion of each vehicle  
20 operation;

21 (B) a vehicle accident;

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

24 or



1 (D) a vehicle orientation with an increased  
2 potential for an accident.

3 (5) The term “Secretary concerned” means—

4 (A) the Secretary of the Army with respect  
5 to matters concerning the Army; and

6 (B) the Secretary of the Navy with respect  
7 to matters concerning the Navy and Marine  
8 Corps.

9 (6) The term “telemetry data” includes—

10 (A) time;

11 (B) vehicle distance traveled;

12 (C) vehicle acceleration and velocity;

13 (D) vehicle orientation, including roll,  
14 pitch, and yaw; and

15 (E) vehicle location in a geographic coordi-  
16 nate system, including elevation.

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