

117TH CONGRESS  
1ST SESSION

# S. 1776

To implement recommendations relating to military training on emerging technologies.

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IN THE SENATE OF THE UNITED STATES

MAY 20, 2021

Mr. PORTMAN (for himself and Mr. HEINRICH) introduced the following bill;  
which was read twice and referred to the Committee on Armed Services

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## A BILL

To implement recommendations relating to military training  
on emerging technologies.

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 “Artificial Intelligence  
5 for the Military Act of 2021”.

6 **SEC. 2. INTEGRATING DIGITAL SKILL SETS AND COMPUTA-**  
7 **TIONAL THINKING INTO MILITARY JUNIOR**  
8 **LEADER EDUCATION.**

9 Not later than 270 days after the date of the enact-  
10 ment of this Act, the Chief of Staff of the Army, the Chief

1 of Naval Operations, the Chief of Staff of the Air Force,  
2 and the Commandant of the Marine Corps shall expand  
3 the curriculum for military junior leader education to in-  
4 corporate appropriate training material related to problem  
5 definition and curation, a conceptual understanding of the  
6 artificial intelligence lifecycle, data collection and manage-  
7 ment, probabilistic reasoning and data visualization, and  
8 data-informed decisionmaking. Whenever possible, the new  
9 training and education should include the use of existing  
10 artificial intelligence-enabled systems and tools.

11 **SEC. 3. INTEGRATION OF MATERIAL ON EMERGING TECH-**  
12 **NOLOGIES INTO PROFESSIONAL MILITARY**  
13 **EDUCATION.**

14 Not later than one year after the date of the enact-  
15 ment of this Act, the Secretary of Defense, in consultation  
16 with the Joint Chiefs of Staff, shall ensure that the cur-  
17 riculum for professional military education is revised in  
18 each of the military services to incorporate periodic  
19 courses on militarily significant emerging technologies  
20 that increasingly build the knowledge base, vocabulary,  
21 and skills necessary to intelligently analyze and utilize  
22 emerging technologies in the tactical, operational, and  
23 strategic levels of warfighting and warfighting support.

1 **SEC. 4. SHORT COURSE ON EMERGING TECHNOLOGIES FOR**  
2 **SENIOR CIVILIAN AND MILITARY LEADERS.**

3 (a) IN GENERAL.—Not later than one year after the  
4 date of the enactment of this Act, the Secretary of Defense  
5 shall establish a short course on emerging technologies for  
6 general and flag officers and senior executive-level civilian  
7 leaders. The short course shall be taught on an iterative,  
8 two-year cycle and shall address the most recent, most rel-  
9 evant technologies and how these technologies may be ap-  
10 plied to military and business outcomes in the Department  
11 of Defense.

12 (b) THROUGHPUT OBJECTIVES.—In assessing par-  
13 ticipation in the short course authorized by subsection (a),  
14 the Secretary of Defense shall ensure that—

15 (1) in the first year that the course is offered,  
16 no fewer than 20 percent of general flag officers and  
17 senior executive-level civilian leaders are certified as  
18 having passed the short course required by sub-  
19 section (a); and

20 (2) in each subsequent year, an additional 10  
21 percent of general flag officers and senior executive-  
22 level civilian leaders are certified as having passed  
23 such course, until such time as 80 percent of such  
24 officers and leaders are so certified.

1 **SEC. 5. EMERGING TECHNOLOGY-CODED BILLETS WITHIN**  
2 **THE DEPARTMENT OF DEFENSE.**

3 (a) **IN GENERAL.**—Not later than one year after the  
4 date of the enactment of this Act, the Secretary of Defense  
5 shall ensure that the military services—

6 (1) code appropriate billets to be filled by  
7 emerging technology-qualified officers; and

8 (2) develop a process for officers to become  
9 qualified in emerging technologies.

10 (b) **APPROPRIATE POSITIONS.**—Emerging tech-  
11 nology-coded positions may include, as appropriate—

12 (1) positions responsible for assisting with ac-  
13 quisition of emerging technologies;

14 (2) positions responsible for helping integrate  
15 technology into field units;

16 (3) positions responsible for developing organi-  
17 zational and operational concepts;

18 (4) positions responsible for developing training  
19 and education plans; and

20 (5) leadership positions at the operational and  
21 tactical levels within the military services.

22 (c) **QUALIFICATION PROCESS.**—The process for  
23 qualifying officers for emerging technology-coded billets  
24 shall be modeled on a streamlined version of the joint qual-  
25 ification process and may include credit for serving in  
26 emerging technology focused fellowships, emerging tech-

- 1 nology focused talent exchanges, emerging technology fo-
- 2 cused positions within government, and educational
- 3 courses focused on emerging technologies.

