

119TH CONGRESS
2D SESSION

S. 4683

To require the Secretary of Defense to assess the effects of artificial intelligence integration on warfighter effectiveness, skill retention, and operational readiness, and for other purposes.

IN THE SENATE OF THE UNITED STATES

JUNE 4, 2026

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

A BILL

To require the Secretary of Defense to assess the effects of artificial intelligence integration on warfighter effectiveness, skill retention, and operational readiness, 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.**

4 This Act may be cited as the “Warfighter Artificial
5 Intelligence Readiness and Preparedness Act of 2026” or
6 the “WARP Act of 2026”.

1 **SEC. 2. ASSESSMENT OF ARTIFICIAL INTELLIGENCE EF-**
2 **FECTS ON WARFIGHTER SKILL RETENTION**
3 **AND OPERATIONAL READINESS.**

4 (a) ASSESSMENT REQUIRED.—Commencing not later
5 than August 1, 2027, the Secretary of Defense shall con-
6 duct a comprehensive assessment of the effects on human
7 performance of the adoption of artificial intelligence sys-
8 tems by personnel of the Department of Defense on the
9 maintenance and retention of essential warfighter skills.

10 (b) COORDINATION AND LEAD OFFICIAL.—The Sec-
11 retary of Defense shall designate a senior official—

12 (1) to coordinate the assessment and research
13 activities required by this section;

14 (2) to oversee the integration of findings under
15 this section into the policies of the Department, with
16 the objective of maximizing both artificial intel-
17 ligence-enabled performance and proficiency in crit-
18 ical, hard-to-recover skills; and

19 (3) who is authorized to coordinate among the
20 military departments and relevant defense agencies
21 for purposes of carrying out this section.

22 (c) SCOPE OF ASSESSMENT.—The assessment re-
23 quired under subsection (a) shall include the following:

24 (1) Identification of military occupational spe-
25 cialties and operational roles where structured pro-
26 ficiency management will be most critical to sus-

1 taining readiness alongside artificial intelligence
2 adoption based on the susceptibility to skill atrophy
3 resulting from reliance on artificial intelligence-en-
4 abled systems as well as speed and investments to
5 recover such skill.

6 (2) Evaluation of the conditions under which
7 artificial intelligence-enabled systems augment
8 warfighter capability and the conditions that call for
9 deliberate proficiency sustainment measures to pre-
10 serve independent judgment and awareness based on
11 the cognitive, operational, and manual skills decline
12 among personnel who regularly use artificial intel-
13 ligence-enabled systems compared to personnel per-
14 forming equivalent tasks without such systems.

15 (3) Identification of measurable indicators that
16 distinguish beneficial skill augmentation from condi-
17 tions requiring proficiency intervention.

18 (4) Assessment of how current training and cer-
19 tification programs can be structured to build and
20 sustain critical, hard-to-recover proficiency based on
21 a review of the conditions under which reliance on
22 artificial intelligence systems may contribute to over-
23 reliance, miscalibrated confidence in system outputs,
24 diminished trust in independent human judgment, or
25 reduced situation awareness.

1 (5) Evaluation of whether current training pro-
2 grams and certification standards adequately pre-
3 serve critical warfighter proficiency for degraded-
4 mode, denied, or contested operational environments,
5 including the adequacy of primary, alternate, contin-
6 gency, and emergency planning frameworks.

7 (6) Recommendations for policies, training pro-
8 tocols, doctrine, acquisition requirements, talent
9 management strategies, or readiness metrics to en-
10 sure that artificial intelligence adoption strengthens
11 operational readiness.

12 (d) RESEARCH ACTIVITIES.—

13 (1) IN GENERAL.—The official designated
14 under subsection (b) shall carry out research activi-
15 ties to support the assessment required under sub-
16 section (a), which may include controlled experi-
17 ments or high-fidelity simulations comparing per-
18 formance with and without artificial intelligence-en-
19 abled systems, longitudinal studies measuring skill
20 retention trajectories, full-spectrum performance,
21 and recovery timelines, assessment of operator con-
22 fidence and decisionmaking accuracy under simu-
23 lated contested conditions, and development of
24 standardized skill sustainment metrics applicable
25 across the Armed Forces.

1 (2) COORDINATION.—In carrying out the re-
2 search activities under paragraph (1), the official
3 designated under subsection (b) shall coordinate
4 with the following entities, as appropriate:

5 (A) The Army Research Institute for Be-
6 havioral and Social Sciences.

7 (B) The Office of Naval Research.

8 (C) The Air Force Research Laboratory
9 Human Effectiveness Directorate.

10 (D) The Chief Digital and Artificial Intel-
11 ligence Office.

12 (E) The military departments.

13 (F) Assistant Secretary of Defense for
14 Readiness.

15 (G) Such other research entities and oper-
16 ational commands as the Secretary of Defense
17 considers appropriate.

18 (3) RESEARCH METHODOLOGY.—Research con-
19 ducted under this subsection shall—

20 (A) establish baseline measurements of
21 task performance and cognitive capabilities
22 prior to artificial intelligence system use;

23 (B) assess performance changes during
24 routine artificial intelligence-assisted operations;

1 (C) evaluate skill sustainment when artificial
2 intelligence systems are removed or unavailable;
3

4 (D) measure recovery timelines to baseline
5 proficiency after extended artificial intelligence-
6 assisted operations; and

7 (E) identify factors that accelerate or support
8 skill sustainment.

9 (e) REPORTS.—

10 (1) INITIAL REPORT.—

11 (A) IN GENERAL.—Not later than one year
12 after the date of the enactment of this Act, the
13 Secretary of Defense shall submit to the congressional
14 defense committees a report on the
15 assessment required under subsection (a).

16 (B) ELEMENTS.—The report required
17 under subparagraph (A) shall include the following:
18

19 (i) An identification of military occupational
20 specialties and operational roles
21 where proficiency sustainment will be most
22 critical based on which are most vulnerable
23 to hard-to-recover skill atrophy.

24 (ii) Preliminary findings from controlled
25 operational experiments and the de-

1 sign of longitudinal studies under sub-
2 section (d)(1).

3 (iii) An assessment of opportunities to
4 strengthen readiness based on identifica-
5 tion of high-level risks to proficiency based
6 on current or planned artificial intelligence
7 deployment practices.

8 (iv) Recommended changes to policies,
9 training, doctrine, or acquisition require-
10 ments to optimize human and artificial in-
11 telligence integration.

12 (v) Recommendations for updates,
13 identified as near- or long-term in nature,
14 to existing training programs, certification
15 standards, and operational doctrine to
16 build and sustain critical and hard-to-re-
17 cover proficiencies and identification of the
18 Department of Defense component or of-
19 fice best positioned to implement each such
20 recommendation.

21 (vi) An identification of any additional
22 authorities, resources, research partner-
23 ships with academic institutions or feder-
24 ally funded research and development cen-
25 ters, or technical expertise needed to con-

1 duct the research activities described in
2 subsection (d).

3 (2) LONGITUDINAL STUDY REPORT.—

4 (A) IN GENERAL.—Not later than three
5 years after the date of the enactment of this
6 Act, the Secretary of Defense shall submit to
7 the congressional defense committees a report
8 containing the findings of the longitudinal stud-
9 ies conducted under subsection (d)(1).

10 (B) ELEMENTS.—The report required
11 under subparagraph (A) shall include the fol-
12 lowing:

13 (i) An identification of measured rates
14 of retention and atrophy of hard-to-recover
15 skills across different military occupational
16 specialties and operational contexts.

17 (ii) An assessment of skill recovery
18 trajectories and the time required to re-
19 store baseline proficiency.

20 (iii) An evaluation of degraded-mode
21 performance outcomes under simulated
22 contested conditions.

23 (iv) Updated recommendations for
24 policies, training protocols, doctrine, acqui-

1 sition requirements, or readiness metrics
2 based on research findings.

3 (v) Any update to the recommenda-
4 tions made under paragraph (1)(B)(v).

5 (f) BRIEFINGS.—

6 (1) INITIAL BRIEFING.—Not later than 90 days
7 after the submittal of the initial report under sub-
8 section (e)(1), the Secretary of Defense shall provide
9 to the congressional defense committees a briefing
10 on the findings and recommendations contained in
11 such report.

12 (2) LONGITUDINAL STUDY BRIEFING.—Not
13 later than 90 days after the submittal of the longitu-
14 dinal study report under subsection (e)(2), the Sec-
15 retary of Defense shall provide to the congressional
16 defense committees a briefing on the findings and
17 recommendations contained in such report.

18 (g) REVIEW OF TRAINING AND DOCTRINE.—The
19 Secretary of Defense shall assess whether existing training
20 programs, certification standards, and operational doc-
21 trine adequately account for the effects of artificial intel-
22 ligence-enabled systems on skill retention and degraded-
23 mode performance and shall include in the reports re-
24 quired under subsection (e)—

1 (1) recommendations for updates, as appro-
2 priate, identified as near-term or longer-term in na-
3 ture; and

4 (2) identification of the Department of Defense
5 component or office best positioned to consider im-
6 plementation of each such recommendation.

7 (h) DEFINITIONS.—In this section:

8 (1) ARTIFICIAL INTELLIGENCE SYSTEM.—The
9 term “artificial intelligence system” has the meaning
10 given the term “artificial intelligence” in section
11 238(g) of the John S. McCain National Defense Au-
12 thorization Act for Fiscal Year 2019 (Public Law
13 115–232; 10 U.S.C. 4061 note prec.).

14 (2) ARTIFICIAL INTELLIGENCE-ENABLED SYS-
15 TEM.—The term “artificial intelligence-enabled sys-
16 tem” means any weapons system, decision support
17 tool, or operational capability that incorporates or
18 relies on an artificial intelligence system.

19 (3) CONGRESSIONAL DEFENSE COMMITTEES.—
20 The term “congressional defense committees” has
21 the meaning given that term in section 101 of title
22 10, United States Code.

23 (4) DEGRADED-MODE OPERATIONS.—The term
24 “degraded-mode operations” means military oper-
25 ations conducted when artificial intelligence systems

1 or supporting infrastructure are unavailable, par-
2 tially functional, compromised, or under adversarial
3 attack.

4 (5) PRIMARY, ALTERNATE, CONTINGENCY, AND
5 EMERGENCY PLANNING.—The term “primary, alter-
6 nate, contingency, and emergency planning” means
7 a framework for ensuring continuity of operations
8 when primary systems become unavailable, requiring
9 personnel to employ alternate approaches, contin-
10 gency plans, or emergency procedures.

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