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(Original Signature of Member)

118TH CONGRESS
2D SESSION

H. R. _____

To amend the National Artificial Intelligence Initiative Act of 2020 to establish a center on artificial intelligence to ensure continued United States leadership in research, development, and evaluation of the robustness, resilience, and safety of artificial intelligence systems, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

M. _____ introduced the following bill; which was referred to the
Committee on _____

A BILL

To amend the National Artificial Intelligence Initiative Act of 2020 to establish a center on artificial intelligence to ensure continued United States leadership in research, development, and evaluation of the robustness, resilience, and safety of artificial intelligence systems, 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,*

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “AI Advancement and
3 Reliability Act of 2024”.

4 **SEC. 2. ARTIFICIAL INTELLIGENCE ADVANCEMENT AND**
5 **RELIABILITY.**

6 (a) IN GENERAL.—Section 5002 of the National Ar-
7 tificial Intelligence Initiative Act of 2020 (15 U.S.C. 9401;
8 as enacted as part of division E of the William M. (Mac)
9 Thornberry National Defense Authorization Act for Fiscal
10 Year 2021; Public Law 116–283) is amended—

11 (1) by redesignating paragraphs (4), (5), (6),
12 (7), (8), (9), (10), and (11) as paragraphs (6), (8),
13 (9), (10), (11), (12), (13), and (14), respectively;

14 (2) by inserting after paragraph (3) the fol-
15 lowing new paragraphs:

16 “(4) **ARTIFICIAL INTELLIGENCE RED**
17 **TEAMING.**—The term ‘artificial intelligence red
18 teaming’ means a structured testing in a controlled
19 environment simulating real-world conditions, using
20 adversarial methods to find flaws and vulnerabilities
21 in an artificial intelligence system and identify risks,
22 flaws, and vulnerabilities of artificial intelligence sys-
23 tems, such as harmful outputs from such system,
24 unforeseen or undesirable system behaviors, limita-
25 tions, and potential risks associated with the misuse
26 of such system.

1 “(5) ARTIFICIAL INTELLIGENCE SYSTEM.—The
2 term ‘artificial intelligence system’ has the meaning
3 given such term in section 7223 of the Advancing
4 American AI Act (40 U.S.C. 11301 note; as enacted
5 as part of title LXXII of division G of the James
6 M. Inhofe National Defense Authorization Act for
7 Fiscal Year 2023; Public Law 117–263).”; and

8 (3) by inserting after paragraph (6), as so re-
9 designated, the following new paragraph:

10 “(7) FEDERAL LABORATORY.—The term ‘Fed-
11 eral laboratory’ has the meaning given such term in
12 section 4 of the Stevenson-Wydler Technology Inno-
13 vation Act of 1980 (15 U.S.C. 3703).”.

14 (b) CENTER FOR AI ADVANCEMENT AND RELI-
15 ABILITY.—Title LIII of division E of the National Artifi-
16 cial Intelligence Initiative Act of 2020 (15 U.S.C. 9401
17 et seq.) is amended by adding at the end the following
18 new section:

19 **“SEC. 5304. CENTER FOR AI ADVANCEMENT AND RELI-**
20 **ABILITY.**

21 “(a) ESTABLISHMENT.—

22 “(1) IN GENERAL.—Subject to the availability
23 of appropriations, the Under Secretary of Commerce
24 for Standards and Technology (in this section re-
25 ferred to as the ‘Under Secretary’) shall establish a

1 center on artificial intelligence, to be known as the
2 ‘Center for AI Advancement and Reliability’ (in this
3 section referred to as the ‘Center’), to ensure contin-
4 ued United States leadership in research, develop-
5 ment, and evaluation of the reliability, robustness,
6 resilience, security, and safety of artificial intel-
7 ligence systems.

8 “(2) PURPOSES.—The purposes of the Center
9 are as follows:

10 “(A) To advance the measurement science
11 for artificial intelligence reliability, robustness,
12 resilience, security, and safety.

13 “(B) To support the National Institute of
14 Standards and Technology laboratories as such
15 laboratories carry out artificial intelligence ac-
16 tivities related to robustness, resilience, and
17 safety described in section 22A of the National
18 Institute of Standards and Technology Act (15
19 U.S.C. 278h–1).

20 “(C) To collaborate with the private sector,
21 standards development organizations, civil soci-
22 ety, and Federal agencies in supporting the de-
23 velopment of voluntary best practices and tech-
24 nical standards for evaluating the reliability,

1 robustness, resilience, security, and safety of ar-
2 tificial intelligence systems.

3 “(D) To increase the understanding of
4 State, local, and Tribal governments, institu-
5 tions of higher education, private sector enti-
6 ties, and the public of artificial intelligence reli-
7 ability, robustness, resilience, security, and safe-
8 ty-related challenges and remediations.

9 “(4) DIRECTOR.—The Under Secretary or ap-
10 propriate designee shall serve as the Director of the
11 Center.

12 “(5) CONSULTATION AND COORDINATION.—In
13 establishing the Center, the Under Secretary shall—

14 “(A) coordinate with—

15 “(i) the Director of the National
16 Science Foundation;

17 “(ii) the Director of the Office of
18 Science and Technology Policy;

19 “(iii) the Secretary of Energy;

20 “(iv) the Secretary of Defense; and

21 “(v) the Secretary of Homeland Secu-
22 rity; and

23 “(B) consult with the heads of such other
24 Federal agencies as the Under Secretary con-
25 siders appropriate.

1 “(6) ACTIVITIES.—The activities of the Center,
2 which the Center may include the following:

3 “(A) Conducting evaluations and
4 benchmarking of the capabilities and limitations
5 of artificial intelligence over time.

6 “(B) Conducting measurement research to
7 inform the development of recommended best
8 practices, benchmarks, methodologies, proce-
9 dures, voluntary consensus-based technical
10 standards, and other resources for the evalua-
11 tion and assurance of reliable, robust, resilient,
12 secure, and safe artificial intelligence systems
13 and reduce the risk of the misuse of such sys-
14 tems, including relating to the following:

15 “(i) Common definitions and charac-
16 terizations for aspects of artificial intel-
17 ligence safety, security, and robustness and
18 the measurement of such that are applica-
19 ble across many sectors and use cases.

20 “(ii) The reliability, robustness, resil-
21 ience, security, and safety of artificial in-
22 telligence systems and use cases, including
23 the ability for such systems to withstand
24 unexpected inputs and adversarial attacks.

1 “(iii) Testing, evaluation, validation,
2 and verification methods for risk manage-
3 ment, including measurement and assur-
4 ance for accuracy, transparency, reliability,
5 security, verifiability, and safety through-
6 out the lifecycle of artificial intelligence
7 systems, including artificial intelligence red
8 teaming.

9 “(iv) Reference use cases for artificial
10 intelligence systems and criteria for assess-
11 ing safety risk in each such use case.

12 “(C) Providing to relevant Federal agen-
13 cies and National Institute of Standards and
14 Technology laboratories, as appropriate, input
15 and support for artificial intelligence risk man-
16 agement regarding reliability, robustness, resil-
17 ience, security, and safety-related topics.

18 “(D) Engaging with, or supporting the en-
19 gagement of the United States Government
20 with, international standards organizations,
21 multilateral organizations, and organizations
22 and topically relevant bodies among allies and
23 partners to support international collaborations
24 on activities described in this paragraph.

1 “(E) As appropriate, and in coordination
2 with ongoing National Institute of Standards
3 and Technology activities, coordinating Federal
4 research, development, demonstration, and
5 standards engagement related to artificial intel-
6 ligence reliability, robustness, resilience, secu-
7 rity, and safety.

8 “(7) REQUIREMENTS.—In carrying out the ac-
9 tivities described in paragraph (6), the Under Sec-
10 retary shall carry out the following:

11 “(A) Support research that assesses and
12 mitigates artificial intelligence reliability,
13 robustness, resilience, security, and safety risks
14 across several timescales, including demon-
15 strable safety risks that arise from the use and
16 misuse of artificial intelligence systems.

17 “(B) Assess scenarios in which artificial
18 intelligence systems could be deployed to create
19 risks for economic or national security.

20 “(C) Leverage computing resources, access
21 to open datasets, open source software, and
22 other resources from industry, government,
23 nonprofit organizations, Federal laboratories,
24 and institutions of higher education to advance
25 the mission of the Center, as appropriate.

1 “(D) Leverage existing Federal invest-
2 ments to advance the mission of the Center.

3 “(E) Avoid unnecessary duplication with
4 National Institute of Standards and Technology
5 laboratory activities authorized under section
6 22A of the National Institute of Standards and
7 Technology Act (15 U.S.C. 278h–1).

8 “(8) REPORT.—For each fiscal year beginning
9 with fiscal year 2026, not later than 90 days after
10 the submission of the President’s annual budget re-
11 quest for such fiscal year in accordance with section
12 1105 of title 31, United States Code, the Under Sec-
13 retary shall submit to the Committee on Science,
14 Space, and Technology of the House of Representa-
15 tives and the Committee on Commerce, Science, and
16 Transportation of the Senate a report that includes
17 the following:

18 “(A) A summarized budget in support of
19 the Center for such fiscal year and the pre-
20 ceding fiscal year.

21 “(B) A description of the goals, priorities,
22 and metrics for guiding and evaluating the ac-
23 tivities of the Center.

24 “(b) ESTABLISHMENT OF CONSORTIUM.—

1 “(1) IN GENERAL.—The Under Secretary shall
2 establish a consortium (in this section referred to as
3 the ‘Consortium’) of stakeholders from academic or
4 research communities, Federal laboratories, private
5 industry, and civil society in matters relating to arti-
6 ficial intelligence reliability, robustness, resilience,
7 security, and safety to support—

8 “(A) the Center in carrying out the activi-
9 ties specified in subsection (a)(6); and

10 “(B) the National Institute of Standards
11 and Technology in carrying out section 22A of
12 the National Institute of Standards and Tech-
13 nology Act (15 U.S.C. 278h-1).

14 “(2) GOALS.—In addition to supporting the
15 Center in carrying out activities under subsection
16 (a)(6), the goals of the Consortium are the following:

17 “(A) To evaluate the needs of stake-
18 holders, including industry and civil society.

19 “(B) To identify where gaps remain in the
20 activities of the Center, including relating to
21 measurement research and support for stand-
22 ards development, and provide recommenda-
23 tions to the Center on how to address such
24 gaps.

1 “(3) REPORT.—Not later than two years after
2 the date of the enactment of this section, the Under
3 Secretary shall submit to the Committee on Science,
4 Space, and Technology of the House of Representa-
5 tives and the Committee on Commerce, Science, and
6 Transportation of the Senate a report summarizing
7 the contributions of the members of the Consortium
8 in support the efforts of the Center.

9 “(c) SCIENTIFIC INTEGRITY.—The Under Secretary
10 shall ensure the Center, Consortium, and staff adhere to
11 policies and procedures established pursuant to section
12 1009 of the America COMPETES Act (42 U.S.C. 6620),
13 including by providing mechanisms for an employee or as-
14 sociate of the National Institute of Standards and Tech-
15 nology, a member of the Consortium, a private sector enti-
16 ty, researcher, or student affiliated with the Center or
17 Consortium, an employee of an agency working with the
18 Center, or a member of the public to report violations of
19 such policies by confidential and anonymous means.

20 “(d) SECURITY.—This section shall be carried out in
21 accordance with the provision of subtitle D of title VI of
22 the Research and Development, Competition, and Innova-
23 tion Act (42 U.S.C. 19231 et seq.; enacted as part of divi-
24 sion B of Public Law 117–167) and section 223 of the

1 William Mac Thornberry National Defense Authorization
2 Act for Fiscal Year 2021 (42 U.S.C. 6605).

3 “(e) LIMITATION.—Information shared by an entity
4 with, or provided to, the National Institute of Standards
5 and Technology for the purpose of the activities described
6 in this section may not be used by any Federal, State,
7 local, or Tribal department or agency to regulate the activ-
8 ity of such entity.

9 “(f) PROHIBITIONS.—Nothing in this section may be
10 construed to—

11 “(1) provide the Under Secretary any enforce-
12 ment authority that was not in effect on the day be-
13 fore the date of the enactment of this Act;

14 “(2) confer any regulatory authority to any
15 Federal, State, Tribal, or local department or agen-
16 cy;

17 “(3) require any private sector entity to share
18 data, including proprietary information, with the
19 Under Secretary, the Center, or the Consortium; or

20 “(4) modify any regulatory requirement to re-
21 port or submit information to a Federal, State, Trib-
22 al or local department or agency.

23 “(g) SUNSET.—This section shall terminate on the
24 date that is six years after the date of the enactment of
25 this section.

1 “(h) AUTHORIZATION OF APPROPRIATIONS.—There
2 is to be authorized to be appropriated to the Under Sec-
3 retary \$10,000,000 for fiscal year 2025 to carry out this
4 section.”.

5 (c) HIRING CRITICAL TECHNICAL EXPERTS UP-
6 DATE.—Subsection (c) of section 6 of the National Insti-
7 tute of Standards and Technology Act (15 U.S.C. 275)
8 is amended by striking “section (b) shall expire on the
9 date that is 5 years” and inserting “subsection (b) shall
10 expire on the date that is 7 years”.

11 (d) CLERICAL AMENDMENT.—The tables of contents
12 in section 2(b) and in title LIII of the William M. (Mac)
13 Thornberry National Defense Authorization Act for Fiscal
14 Year 2021 are amended by inserting after the items relat-
15 ing to section 5303 the following new items:

“Sec. 5304. Center for AI Advancement and Reliability.”.