to engage with and support the development of scientific, technical, engineering, and mathematics capabilities of covered educational institutions pursuant to the strategies developed under subsection (a).

"(c) Submission.—

- "(1) BASIC RESEARCH ENTITIES.—Not later than 180 days after the date of the enactment of this Act [Nov. 25, 2015], the heads of each basic research entity shall each submit to the congressional defense committees [Committees on Armed Services and Appropriations of the Senate and the House of Representatives] the strategy developed by the head under subsection (a)(1)
- "(2) OFFICE OF THE SECRETARY.—Not later than one year after the date of the enactment of this Act, the Secretary of Defense shall submit to the congressional defense committees the strategy developed under subsection (b).
- "(d) COVERED INSTITUTION DEFINED.—In this section: "(1) The term 'basic research entity' means an entity of the Department of Defense that executes research, development, test, and evaluation budget activity 1 funding, as described in the Department of Defense Financial Management Regulation.

"(2) The term 'covered educational institution' has the meaning given that term in section 2362(e) [now 2362(f)] of title 10, United States Code."

§ 2363. Mechanisms to provide funds for defense laboratories for research and development of technologies for military missions

- (a) MECHANISMS TO PROVIDE FUNDS.—(1) The Secretary of Defense, in consultation with the Secretaries of the military departments, shall establish mechanisms under which the director of a defense laboratory may use an amount of funds equal to not less than two percent and not more than four percent of all funds available to the defense laboratory for the following purposes:
 - (A) To fund innovative basic and applied research that is conducted at the defense laboratory and supports military missions.
 - (B) To fund development programs that support the transition of technologies developed by the defense laboratory into operational use.
 - (C) To fund workforce development activities that improve the capacity of the defense laboratory to recruit and retain personnel with necessary scientific and engineering expertise that support military missions.
 - (D) To fund the repair or minor military construction of the laboratory infrastructure and equipment, in accordance with subsection (b).
- (2) The mechanisms established under paragraph (1) shall provide that funding shall be used under paragraph (1) at the discretion of the director of a defense laboratory in consultation with the science and technology executive of the military department concerned.
- (3) The science and technology executive of a military department may develop policies and guidance to leverage funding and promote cross-laboratory collaboration, including with laboratories of other military departments.
- (4) After consultation with the science and technology executive of the military department concerned, the director of a defense laboratory may charge customer activities a fixed percentage fee, in addition to normal costs of performance, in order to obtain funds to carry out activities authorized by this subsection. The fixed fee may not exceed four percent of costs.

- (b) AVAILABILITY OF FUNDS FOR INFRASTRUCTURE PROJECTS.—Funds shall be available in accordance with subsection (a)(1)(D) only if—
 - (1) the Secretary notifies the congressional defense committees of the total cost of the project before the date on which the Secretary uses the mechanism under such subsection for such project; and
 - (2) the Secretary ensures that the project complies with the applicable cost limitations in—
 - (A) section 2805(d) of this title, with respect to revitalization and recapitalization projects; and
 - (B) section 2811 of this title, with respect to repair projects.
- (c) Release and Dissemination of Information on Contributions From Use of Authority to Military Missions.—
 - (1) COLLECTION OF INFORMATION.—The Secretary shall establish and maintain mechanisms for the continuous collection of information on achievements, best practices identified, lessons learned, and challenges arising in the exercise of the authority in this section.
 - (2) RELEASE OF INFORMATION.—The Secretary shall establish and maintain mechanisms as follows:
 - (A) Mechanisms for the release to the public of information on achievements and best practices described in paragraph (1) in unclassified form.
 - (B) Mechanisms for dissemination to appropriate civilian and military officials of information on achievements and best practices described in paragraph (1) in classified form.

(Added Pub. L. 115–91, div. A, title II, §220(a), Dec. 12, 2017, 131 Stat. 1332; amended Pub. L. 115–232, div. A, title II, §250, Aug. 13, 2018, 132 Stat. 1702.)

PRIOR PROVISIONS

A prior section 2363, added Pub. L. 99–145, title XIV, §1457(a), Nov. 8, 1985, 99 Stat. 762, related to encouragement of technology transfer, prior to repeal by Pub. L. 102–484, div. D, title XLII, §§4224(c), 4271(a)(2), Oct. 23, 1992, 106 Stat. 2683, 2695. See section 2514 of this title.

AMENDMENTS

2018—Subsec. (c). Pub. L. 115–232 amended subsec. (c) generally. Prior to amendment, subsec. (c) related to annual reports on the use of the authority under subsec. (a).

§ 2364. Coordination and communication of defense research activities and technology domain awareness

- (a) COORDINATION OF DEPARTMENT OF DEFENSE RESEARCH, DEVELOPMENT, AND TECHNOLOGICAL DATA.—The Secretary of Defense shall promote, monitor, and evaluate programs for the communication and exchange of research, development, and technological data—
 - (1) among the Defense research facilities, combatant commands, and other organizations that are involved in developing for the Department of Defense the technological requirements for new items for use by combat forces:
 - (2) among Defense research facilities and other offices, agencies, and bureaus in the De-

partment that are engaged in related technological matters;

- (3) among other research facilities and other departments or agencies of the Federal Government that are engaged in research, development, and technological matters;
- (4) among private commercial, research institution, and university entities engaged in research, development, and technological matters potentially relevant to defense on a voluntary basis:
- (5) to the extent practicable, to achieve full awareness of scientific and technological advancement and innovation wherever it may occur, whether funded by the Department of Defense, another element of the Federal Government, or other entities; and
- (6) through development and distribution of clear technical communications to the public, military operators, acquisition organizations, and civilian and military decision-makers that convey successes of research and engineering activities supported by the Department and the contributions of such activities to support national needs.
- (b) Functions of Defense Research Facilities.—The Secretary of Defense shall ensure, to the maximum extent practicable—
 - (1) that Defense research facilities are assigned broad mission requirements rather than specific hardware needs;
 - (2) that appropriate personnel of such facilities are assigned to serve as consultants on component and support system standardization:
 - (3) that the managers of such facilities have broad latitude to choose research and development projects based on awareness of activities throughout the technology domain, including within the Federal Government, the Department of Defense, public and private research institutions and universities, and the global commercial marketplace;
 - (4) that technology position and issue papers prepared by Defense research facilities are readily available to all components of the Department of Defense and to contractors who submit bids or proposals for Department of Defense contracts;
 - (5) that, in order to promote increased consideration of technological issues early in the development process, any technological assessment made by a Defense research facility shall be provided to the Defense Technical Information Center repository to support acquisition decisions; and
 - (6) that, in light of Defense research facilities being funded by the public, Defense research facilities are broadly authorized and encouraged to support national technological development goals and support technological missions of other departments and agencies of the Federal Government, when such support is determined by the Secretary of Defense to be in the best interests of the Federal Government.
- (c) DEFINITIONS.—In this section, the term "Defense research facility" means a Department of Defense facility which performs or contracts for the performance of—

- (1) basic research; or
- (2) applied research known as exploratory development.

(Added Pub. L. 99-661, div. A, title II, §234(c)(1), Nov. 14, 1986, 100 Stat. 3848; amended Pub. L. 100-26, §§3(1)(A), 7(a)(9), Apr. 21, 1987, 101 Stat. 273, 278; Pub. L. 100-180, div. A, title XII, §1231(10)(A), (B), Dec. 4, 1987, 101 Stat. 1160; Pub. L. 104-106, div. A, title VIII, §805, Feb. 10, 1996, 110 Stat. 390; Pub. L. 113-291, div. A, title II, §213, Dec. 19, 2014, 128 Stat. 3325; Pub. L. 114-92, div. A, title II, §214(a), Nov. 25, 2015, 129 Stat. 767; Pub. L. 115-91, div. A, title X, §1081(a)(34), Dec. 12, 2017, 131 Stat. 1596.)

AMENDMENTS

2017—Subsec. (a)(6). Pub. L. 115-91 substituted "convey" for "conveys".

2015—Pub. L. 114-92, §214(a)(3), inserted "and technology domain awareness" after "activities" in section catchline.

Subsec. (a). Pub. L. 114–92, §214(a)(1), added subsec. (a) and struck out former subsec. (a). Prior to amendment, text read as follows: "The Secretary of Defense shall promote, monitor, and evaluate programs for the communication and exchange of technological data—

"(1) among the Defense research facilities, combatant commands, and other organizations that are involved in developing for the Department of Defense the technological requirements for new items for use by combat forces; and

"(2) among Defense research facilities and other offices, agencies, and bureaus in the Department that are engaged in related technological matters."

Subsec. (b)(3). Pub. L. 114-92, §214(a)(2)(A), added par. (3) and struck out former par. (3) which read as follows: "that the managers of such facilities have broad latitude to choose research and development projects;".

Subsec. (b)(6). Pub. L. 114-92, 214(a)(2)(B)-(D), added par. (6).

2014—Subsec. (b)(4). Pub. L. 113–291, §213(1)(A), inserted "and issue" after "technology position" and substituted "components of the Department of Defense" for "combatant commands".

Subsec. (b)(5). Pub. L. 113–291, §213(1)(B), substituted "any technological assessment made by a Defense research facility shall be provided to the Defense Technical Information Center repository to support acquisition decisions." for "any position paper prepared by a Defense research facility on a technological issue relating to a major weapon system, and any technological assessment made by such facility in the case of such component, is made a part of the records considered for the purpose of making acquisition program decisions."

Subsec. (c). Pub. L. 113–291, §213(2), struck out "this section:" after "In", substituted "this section, the term" for "(1) The term", redesignated subpars. (A) and (B) of former par. (1) as pars. (1) and (2), respectively, and realigned margins, and struck out par. (2) which read as follows: "The term 'acquisition program decision' has the meaning prescribed by the Secretary of Defense in regulations."

1996—Subsec. (b)(5). Pub. L. 104–106, §805(1), substituted "acquisition program" for "milestone O, milestone I, and milestone II".

Subsec. (c)(2) to (4). Pub. L. 104–106, \$805(2), added par. (2) and struck out former pars. (2) to (4) which read as follows:

- "(2) The term 'milestone O decision' means the decision made within the Department of Defense that there is a mission need for a new major weapon system and that research and development is to begin to meet such need.
- "(3) The term 'milestone I decision' means the decision by an appropriate official of the Department of Defense selecting a new major weapon system concept and a program for demonstration and validation of such concept.

"(4) The term 'milestone II decision' means the decision by an appropriate official of the Department of Defense approving the full-scale development of a new major weapon system."

1987—Pub. L. 100-26, §3(1)(A), made technical amendment to directory language of section 234(c)(1) of Pub.

L. 99-661, which enacted this section. Pub. L. 100-180, §1231(10)(B), substituted "defense" for "Defense" in section catchline.

Subsec. (b)(5). Pub. L. 100-180, §1231(10)(A), substituted "milestone O, milestone I, and milestone II decisions" for "milestone O, I, and II decisions"

Subsec. (c)(2). Pub. L. 100-26, \$7(a)(9)(A), substituted "the decision" for "a decision". Subsec. (c)(3). Pub. L. 100-26, \$7(a)(9)(B), substituted

"the decision by an appropriate official of the Department of Defense selecting" for "[a]/[the] selection by an appropriate official of the Department of Defense

Subsec. (c)(4). Pub. L. 100-26, §7(a)(9)(C), substituted "the decision by an appropriate official of the Department of Defense approving" for "approval by an appropriate official of the Department of Defense for".

EFFECTIVE DATE OF 1987 AMENDMENT

Amendment by section 3(1)(A) of Pub. L. 100-26 applicable as if included in Pub. L. 99-661 when enacted on Nov. 14, 1986, see section 12(a) of Pub. L. 100-26, set out as a note under section 776 of this title.

ESTABLISHMENT OF INNOVATORS INFORMATION Repository in the Department of Defense

Pub. L. 115-232, div. A, title II, §220, Aug. 13, 2018, 132 Stat. 1681, provided that:

"(a) IN GENERAL.—Not later than one year after the date of the enactment of this Act [Aug. 13, 2018], the Secretary of Defense shall, acting through the Defense Technical Information Center, establish an innovators information repository within the Department of Defense in accordance with this section.

"(b) MAINTENANCE OF INFORMATION REPOSITORY.—The

Under Secretary of Defense for Research and Engineering shall maintain the information repository and ensure that it is periodically updated.

"(c) ELEMENTS OF INFORMATION REPOSITORY.—The information repository established under subsection (a)

"(1) be coordinated across the Department of Defense enterprise to focus on small business innovators that are small, independent United States businesses, including those participating in the Small Business Innovation Research program or the Small Business Technology Transfer program;

(2) include appropriate information about each participant, including a description of-

'(A) the need or requirement applicable to the

participant; "(B) the participant's technology with appropriate technical detail and appropriate protections of proprietary information or data;

(C) any prior business of the participant with

the Department: and

'(D) whether the participant's technology was incorporated into a program of record; and

"(3) incorporate the appropriate classification due to compilation of information.

'(d) USE OF INFORMATION REPOSITORY.—After the information repository is established under subsection (a), the Secretary shall encourage use of the information repository by Department organizations involved in technology development and protection, including program offices, before initiating a Request for Information or a Request for Proposal to determine whether an organic technology exists or is being developed currently by a an [sic] entity supported by the Department (which may include a company, academic consortium, or other entity).'

COLLABORATION BETWEEN DEFENSE LABORATORIES, INDUSTRY, AND ACADEMIA: OPEN CAMPUS PROGRAM

Pub. L. 115–232, div. A, title II, $\S 222$, Aug. 13, 2018, 132 Stat. 1682, provided that:

"(a) COLLABORATION.—The Secretary of Defense may carry out activities to prioritize innovative collaboration between Department of Defense science and technology reinvention laboratories, industry, and academia.

"(b) OPEN CAMPUS PROGRAM.—In carrying out subsection (a), the Secretary, acting through the Commander of the Air Force Research Laboratory, the Commander of the Army Research, Development and Engineering Command, and the Chief of Naval Research, or such other officials of the Department as the Secretary considers appropriate, may develop and implement an open campus program for the Department science and technology reinvention laboratories which shall be modeled after the open campus program of the Army Research Laboratory.

SPECIFICATION OF CERTAIN DUTIES OF THE DEFENSE TECHNICAL INFORMATION CENTER

Pub. L. 115-232, div. A, title IX, §905, Aug. 13, 2018, 132 Stat. 1922, provided that:

"(a) IN GENERAL.—In addition to any other duties specified for the Defense Technical Information Center by law, regulation, or Department of Defense directive or instruction, the duties of the Center shall include the following:

"(1) To execute the Global Research Watch Program under section 2365 of title 10, United States Code.

"(2) To develop and maintain datasets and other data repositories on research and engineering activities being conducted within the Department.

"(b) ACTION PLAN.—Not later than 90 days after the date of the enactment of this Act [Aug. 13, 2018], the Secretary of Defense shall submit to the Committees on Armed Services of the Senate and the House of Representatives a plan of action for the commencement by the Defense Technical Information Center of the duties specified in subsection (a).

PERFORMANCE REVIEW PROCESS

Pub. L. 106-65, div. A, title IX, §913(b), Oct. 5, 1999, 113 Stat. 720, which required the Secretary of Defense to develop an appropriate performance review process for rating the quality and relevance of work performed by the Department of Defense laboratories, was repealed by Pub. L. 115-232, div. A, title VIII, §812(b)(30), Aug. 13, 2018, 132 Stat. 1849.

COORDINATION OF HIGH-TEMPERATURE SUPERCONDUCTIVITY RESEARCH AND DEVELOPMENT

Pub. L. 100-180, div. A, title II, §218(b)(2), Dec. 4, 1987, 101 Stat. 1053, as amended by Pub. L. 100-418, title V, §5115(c), Aug. 23, 1988, 102 Stat. 1433; Pub. L. 103-160, div. A, title IX, §904(f), Nov. 30, 1993, 107 Stat. 1729; Pub. L. 106-65, div. A, title IX, §911(a)(1), Oct. 5, 1999, 113 Stat. 717, provided that: "The Secretary of Defense, acting through the Under Secretary of Defense for Acquisition, Technology, and Logistics, shall-

'(A) coordinate the research and development activities of the Department of Defense relating to high-temperature superconductivity; and

'(B) ensure that such research and development-

"(i) is carried out in coordination with the hightemperature superconductivity research and development activities of the Department of Energy (including the national laboratories of the Department of Energy), the National Science Foundation, the National Institute of Standards and Technology, and the National Aeronautics and Space Administration; and

"(ii) complements rather than duplicates such activities."

COORDINATION OF RESEARCH ACTIVITIES OF DEPARTMENT OF DEFENSE

Pub. L. 99-661, div. A, title II, §234(a), (b), Nov. 14, 1986, 100 Stat. 3848, which aimed to strengthen and centralize coordination among Department of Defense research facilities and other Department organizations, was repealed by Pub. L. 115-232, div. A, title VIII, §812(b)(31), Aug. 13, 2018, 132 Stat. 1849.

§ 2365. Global Research Watch Program

- (a) PROGRAM.—The Under Secretary of Defense for Research and Engineering shall carry out a Global Research Watch program in accordance with this section.
- (b) PROGRAM GOALS.—The goals of the program are as follows:
 - (1) To monitor and analyze the basic and applied research activities and capabilities of foreign nations and private sector persons in areas of military interest, including allies and competitors.
 - (2) To provide standards for comparison and comparative analysis of research capabilities of foreign nations and private sector persons in relation to the research capabilities of the United States.
 - (3) To assist Congress and Department of Defense officials in making investment decisions for research in technical areas where the United States may not be the global leader.
 - (4) To identify areas where significant opportunities for cooperative research may exist.
 - (5) To coordinate and promote the international cooperative research and analysis activities of each of the armed forces and Defense Agencies.
- (6) To establish and maintain an electronic database on international research capabilities, comparative assessments of capabilities, cooperative research opportunities, and ongoing cooperative programs.
- (c) FOCUS OF PROGRAM.—The program shall be focused on research and technologies at a technical maturity level equivalent to Department of Defense basic and applied research programs.
- (d) COORDINATION.—(1) The Under Secretary shall coordinate the program with the international cooperation and analysis activities of the military departments and Defense Agencies.
- (2) The Secretaries of the military departments and the directors of the Defense Agencies shall provide the Under Secretary of Defense for Research and Engineering such assistance as the Under Secretary may require for purposes of the program.
- (3)(A) Funds available to a military department for a fiscal year for monitoring or analyzing the research activities and capabilities of foreign nations may not be obligated or expended until the Under Secretary of Defense for Research and Engineering certifies to the Under Secretary of Defense for Acquisition, Technology, and Logistics that the Secretary of such military department has provided the assistance required under paragraph (2).
- (B) The limitation in subparagraph (A) shall not be construed to alter or effect the availability to a military department of funds for intelligence activities.
- (e) CLASSIFICATION OF DATABASE INFORMATION.—Information in electronic databases of the Global Research Watch program shall be maintained in unclassified form and, as determined necessary by the Under Secretary of Defense for Research and Engineering, in classified form in such databases.

(f) TERMINATION.—The requirement to carry out the program under this section shall terminate on September 30, 2025.

(Added Pub. L. 108–136, div. A, title II, §231(a), Nov. 24, 2003, 117 Stat. 1421; amended Pub. L. 109–364, div. A, title II, §232, Oct. 17, 2006, 120 Stat. 2134; Pub. L. 111–84, div. A, title II, §211, Oct. 28, 2009, 123 Stat. 2225; Pub. L. 111–383, div. A, title IX, §901(j)(3), Jan. 7, 2011, 124 Stat. 4324; Pub. L. 112–239, div. A, title X, §1076(c)(2)(B), Jan. 2, 2013, 126 Stat. 1950; Pub. L. 114–92, div. A, title II, §215, Nov. 25, 2015, 129 Stat. 769; Pub. L. 116–92, div. A, title II, §266, Dec. 20, 2019, 133 Stat. 1301.)

PRIOR PROVISIONS

A prior section 2365, added Pub. L. 99–500, $\S101(c)$ [title X, $\S999(a)(1)$, formerly $\S909(a)$], Oct. 18, 1986, 100 Stat. 1783–82, 1783–142, and Pub. L. 99–591, $\S101(c)$ [title X, $\S909(a)(1)$, formerly $\S909(a)$], Oct. 30, 1986, 100 Stat. 3341–82, 3341–142, redesignated $\S909(a)(1)$, Pub. L. 100–26, $\S4(b)$, Apr. 21, 1987, 101 Stat. 274; Pub. L. 99–661, div. A, title IX, formerly title IV, $\S909(a)(1)$, Nov. 14, 1986, 100 Stat. 3921, renumbered title IX, Pub. L. 100–26, $\S3(5)$, Apr. 21, 1987, 101 Stat. 273; Pub. L. 100–26, $\S3(3)$ (A), Apr. 21, 1987, 101 Stat. 273; Pub. L. 100–26, $\S5(3)$ (A), Apr. 21, 1987, 101 Stat. 274; Pub. L. 100–456, div. A, title VIII, $\S802$, Sept. 29, 1988, 102 Stat. 2008, required use of competitive prototype program strategy in development of major weapons systems, prior to repeal by Pub. L. 102–484, div. A, title VIII, $\S821(c)(1)$, Oct. 23, 1992, 106 Stat. 2460.

AMENDMENTS

2019—Subsec. (a). Pub. L. 116-92, \$266(1), substituted "Under Secretary of Defense for Research and Engineering" for "Assistant Secretary of Defense for Research and Engineering".

Subsec. (d)(1). Pub. L. 116-92, \$266(3), substituted

Subsec. (d)(1). Pub. L. 116-92, §266(3), substituted "Under Secretary" for "Assistant Secretary".

Subsec. (d)(2). Pub. L. 116-92, §266(1), (3), substituted "Under Secretary of Defense for Research and Engineering" for "Assistant Secretary of Defense for Research and Engineering" and "Under Secretary" for "Assistant Secretary".

"Assistant Secretary". Subsec. (d)(3)(A). Pub. L. 116-92, §266(2), substituted "Under Secretary of Defense for Research and Engineering" for "Assistant Secretary".

Subsec. (e). Pub. L. 116-92, §266(2), substituted "Under Secretary of Defense for Research and Engineering" for "Assistant Secretary".

2015—Subsec. (b)(1), (2). Pub. L. 114-92, §215(1), inserted "and private sector persons" after "foreign nations".

Subsec. (f). Pub. L. 114-92, §215(2), substituted "September 30, 2025" for "September 30, 2015".

2013—Subsec. (a). Pub. L. 112–239, §1076(c)(2)(B)(i), inserted "of Defense for Research and Engineering" after "The Assistant Secretary".

Subsec. (d)(3)(A). Pub. L. 112-239, §1076(c)(2)(B)(ii), substituted "Assistant Secretary" for "Director".

2011—Subsec. (a). Pub. L. 111-383, §901(j)(3)(A), substituted "Assistant Secretary" for "Director of Defense Research and Engineering"

Research and Engineering". Subsec. (d)(1). Pub. L. 111–383, 901(j)(3)(B), substituted "Assistant Secretary" for "Director".

Subsec. (d)(2). Pub. L. 111-383, §901(j)(3)(C), substituted "Assistant Secretary of Defense for Research and Engineering" for "Director of Defense Research and Engineering" and "Assistant Secretary may" for "Director may".

Subsec. (e). Pub. L. 111-383, §901(j)(3)(D), substituted "Assistant Secretary" for "Director".

2009—Subsec. (d)(3). Pub. L. 111–84, §211(a), added par.

Subsec. (f). Pub. L. 111-84, §211(b), substituted "2015" for "2011".

2006—Subsec. (f). Pub. L. 109–364 substituted "2011" for "2006".