

- “(I) at least one such program from the Army;  
“(II) at least one such program from the Navy or the Marine Corps; and  
“(III) at least one such program from the Air Force or the Space Force.
- “(3) REGULAR SURVIVABILITY AND LETHALITY TESTING THROUGHOUT LIFE CYCLE.—
- “(A) IN GENERAL.—The Secretary, in coordination with covered officials, shall—
- “(i) develop a process to regularly test through the use of digital technologies the survivability and lethality of each covered system against kinetic and non-kinetic threats throughout the life cycle of such system as threats evolve; and  
“(ii) establish guidance for such testing.
- “(B) ELEMENTS.—In carrying out subparagraph (A), the Secretary shall determine the following:
- “(i) When to deploy digital technologies to provide timely and up-to-date insights with respect to covered systems without unduly delaying fielding of capabilities.  
“(ii) The situations in which it may be necessary to develop and use digital technologies to assess legacy fleet vulnerabilities.
- “(b) REPORTS AND BRIEFING.—
- “(1) ASSESSMENT AND SELECTION OF PROGRAMS.—Not later than 180 days after the date of the enactment of this Act [Dec. 27, 2021], the Secretary shall submit to the congressional defense committees [Committees on Armed Services and Appropriations of the Senate and the House of Representatives] a report that identifies the programs selected to participate in the demonstration activities under subsection (a)(2)(C).
- “(2) MODERNIZATION AND DIGITIZATION REPORT.—
- “(A) IN GENERAL.—Not later than March 15, 2023, the Director shall submit to the congressional defense committees a report that includes—
- “(i) an assessment of the progress of the Secretary in carrying out subsection (a);  
“(ii) an assessment of each of the demonstration activities carried out under subsection (a)(2)(C), including a comparison of—  
“(I) the risks, benefits, and costs of using digital technologies for live fire testing and evaluation; and  
“(II) the risks, benefits, and costs of traditional physical live fire testing approaches that—  
“(aa) are not supported by digital technologies;  
“(bb) do not include testing against non-kinetic threats; and  
“(cc) do not include full spectrum survivability;  
“(iii) an explanation of—  
“(I) how real-world operational and digital survivability and lethality testing data will be used to inform and enhance digital technology;  
“(II) the contribution of such data to the digital modernization efforts required under section 836 of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (Public Law 116-283) [10 U.S.C. 3101 note]; and  
“(III) the contribution of such data to the decision-support processes for managing and overseeing acquisition programs of the Department;  
“(iv) an assessment of the ability of the Department to perform full spectrum survivability and lethality testing of each covered system with respect to kinetic and non-kinetic threats;  
“(v) an assessment of the processes implemented by the Department to manage digital technologies developed pursuant to subsection (a); and  
“(vi) an assessment of the processes implemented by the Department to develop digital technology that can perform full spectrum survivability and lethality testing with respect to kinetic and non-kinetic threats.
- “(B) BRIEFING.—Not later than April 14, 2023, the Director shall provide to the congressional defense committees a briefing that identifies any changes to existing law that may be necessary to implement subsection (a).
- “(c) DEFINITIONS.—In this section:
- “(1) The term ‘covered officials’ means—  
“(A) the Under Secretary of Defense for Research and Engineering;  
“(B) the Under Secretary of Defense for Acquisition and Sustainment;  
“(C) the Chief Information Officer;  
“(D) the Director;  
“(E) the Director of Cost Assessment and Program Evaluation;  
“(F) the Service Acquisition Executives;  
“(G) the Service testing commands;  
“(H) the Director of the Defense Digital Service; and  
“(I) representatives from—  
“(i) the Department of Defense Test Resource Management Center;  
“(ii) the High Performance Computing Modernization Program Office; and  
“(iii) the Joint Technical Coordination Group for Munitions Effectiveness.
- “(2) The term ‘covered system’ means any warfighting capability that can degrade, disable, deceive, or destroy forces or missions.
- “(3) The term ‘Department’ means the Department of Defense.
- “(4) The term ‘digital technologies’ includes digital models, digital simulations, and digital twin capabilities that may be used to test the survivability and lethality of a covered system.
- “(5) The term ‘Director’ means the Director of Operational Test and Evaluation.
- “(6) The term ‘full spectrum survivability and lethality testing’ means a series of assessments of the effects of kinetic and non-kinetic threats on the communications, firepower, mobility, catastrophic survivability, and lethality of a covered system.
- “(7) The term ‘non-kinetic threats’ means unconventional threats, including—  
“(A) cyber attacks;  
“(B) electromagnetic spectrum operations;  
“(C) chemical, biological, radiological, nuclear effects and high yield explosives; and  
“(D) directed energy weapons.
- “(8) The term ‘Secretary’ means the Secretary of Defense.”

#### § 4173. Department of Defense Test Resource Management Center

(a) ESTABLISHMENT AS DEPARTMENT OF DEFENSE FIELD ACTIVITY.—The Secretary of Defense shall establish within the Department of Defense under section 191 of this title a Department of Defense Test Resource Management Center (hereinafter in this section referred to as the “Center”). The Secretary shall designate the Center as a Department of Defense Field Activity.

(b) DIRECTOR AND DEPUTY DIRECTOR.—(1) At the head of the Center shall be a Director, selected by the Secretary from among individuals who have substantial experience in the field of test and evaluation.

(2) There shall be a Deputy Director of the Center, selected by the Secretary from among individuals who have substantial experience in the field of test and evaluation. The Deputy Director shall act for, and exercise the powers of, the Director when the Director is disabled or the position of Director is vacant.

(c) DUTIES OF DIRECTOR.—(1) The Director shall have the following duties:

(A) To review and provide oversight of proposed Department of Defense budgets and expenditures for—

- (i) the test and evaluation facilities and resources of the Major Range and Test Facility Base of the Department of Defense; and
- (ii) all other test and evaluation facilities and resources within and outside of the Department of Defense, other than budgets and expenditures for activities described in section 139(j) of this title.

(B) To review proposed significant changes to the test and evaluation facilities and resources of the Major Range and Test Facility Base, including with respect to the expansion, divestment, consolidation, or curtailment of activities, before they are implemented by the Secretaries of the military departments or the heads of the Defense Agencies with test and evaluation responsibilities and advise the Secretary of Defense and the Under Secretary of Defense for Research and Engineering of the impact of such changes on the adequacy of such test and evaluation facilities and resources to meet the test and evaluation requirements of the Department.

(C) To complete and maintain the quadrennial strategic plan required by subsection (d).

(D) To review proposed budgets under subsection (e) and submit reports and certifications required by such subsection.

(E) To administer the Central Test and Evaluation Investment Program and the program of the Department of Defense for test and evaluation science and technology.

(2) The Director shall have access to such records and data of the Department of Defense (including the appropriate records and data of each military department and Defense Agency) that are necessary in order to carry out the duties of the Director under this section.

(d) QUADRENNIAL STRATEGIC PLAN FOR DEPARTMENT OF DEFENSE TEST AND EVALUATION RESOURCES.—(1) Not less often than once every four fiscal years, and within one year after release of the National Defense Strategy, the Under Secretary of Defense for Research and Engineering, in coordination with the Director of the Department of Defense Test Resource Management Center, the Director of Operational Test and Evaluation, the Director of the Defense Intelligence Agency, the Secretaries of the military departments, and the heads of Defense Agencies with test and evaluation responsibilities, shall complete a quadrennial strategic plan reflecting the future needs of the Department of Defense with respect to test and evaluation facilities and resources. Each quadrennial strategic plan shall cover the period of thirty fiscal years beginning with the fiscal year in which the plan is submitted under paragraph (3). The quadrennial strategic plan shall be based on a comprehensive review of both funded and unfunded test and evaluation requirements of the Department, future threats to national security, and the adequacy of the test and evaluation facilities and resources of the Department to meet those future requirements and threats.

(2) The quadrennial strategic plan shall include the following:

(A) An assessment of the test and evaluation requirements of the Department for the period covered by the plan.

(B) An identification of performance measures associated with the successful achievement of test and evaluation objectives for the period covered by the plan.

(C) An assessment of the test and evaluation facilities and resources that will be needed to meet current and future requirements for test and evaluation of the Department of Defense major weapon systems based on current and emerging threats.

(D) An assessment of the current state of the test and evaluation facilities and resources of the Department.

(E) An assessment of plans and business case analyses supporting any significant modification of the test and evaluation facilities and resources of the Department projected, proposed, or recommended by the Secretary of a military department or the head of a Defense Agency for such period, including with respect to the expansion, divestment, consolidation, or curtailment of activities.

(F) An itemization of acquisitions, upgrades, and improvements necessary to ensure that the test and evaluation facilities and resources of the Department are adequate to meet such requirements and satisfy such performance measures.

(G) An assessment of the budgetary resources necessary to implement such acquisitions, upgrades, and improvements.

(3) Upon completing a quadrennial strategic plan under paragraph (1), the Director shall submit to the Secretary of Defense a report on that plan. The report shall include the plan and a description of the review on which the plan is based.

(4) Not later than 60 days after the date on which the report is submitted under paragraph (3), the Secretary of Defense shall transmit to the Committee on Armed Services and Committee on Appropriations of the Senate and the Committee on Armed Services and Committee on Appropriations of the House of Representatives the report, together with any comments with respect to the report that the Secretary considers appropriate.

(5)(A) In addition to the quadrennial strategic plan completed under paragraph (1), the Director of the Department of Defense Test Resource Management Center shall also complete an annual update to the quadrennial strategic plan.

(B) Each annual update completed under subparagraph (A) shall include the following:

(i) A summary of changes to the assessment provided in the most recent quadrennial strategic plan.

(ii) Comments and recommendations the Director considers appropriate.

(iii) Test and evaluation challenges raised since the completion of the most recent quadrennial strategic plan.

(iv) Actions taken or planned to address such challenges.

(e) CERTIFICATION OF BUDGETS.—(1) The Secretary of Defense, acting through the Under Secretary of Defense (Comptroller), shall require

that the Secretary of each military department and the head of each Defense Agency with test and evaluation responsibilities transmit such Secretary's or Defense Agency head's proposed budget for test and evaluation activities, including modeling and simulation activities, for a fiscal year and for the period covered by the future-years defense program submitted to Congress under section 221 of this title for that fiscal year to the Director of the Center for review under paragraph (2) before submitting such proposed budget to the Under Secretary of Defense (Comptroller).

(2)(A) The Director of the Center shall review each proposed budget transmitted under paragraph (1) and shall, not later than January 31 of the year preceding the fiscal year for which such budgets are proposed, submit to the Secretary of Defense a report containing the comments of the Director with respect to all such proposed budgets, together with the certification of the Director as to whether such proposed budgets are adequate.

(B) The Director shall also submit, together with such report and such certification, an additional certification as to whether such proposed budgets provide balanced support for such quadrennial strategic plan.

(3) The Secretary of Defense shall, not later than March 31 of the year preceding the fiscal year for which such budgets are proposed, submit to Congress a report on those proposed budgets which the Director has not certified under paragraph (2)(A) to be adequate. The report shall include the following matters:

(A) A discussion of the actions that the Secretary proposes to take, together with any recommended legislation that the Secretary considers appropriate, to address the inadequacy of the proposed budgets.

(B) Any additional comments that the Secretary considers appropriate regarding the inadequacy of the proposed budgets.

(f) APPROVAL OF CERTAIN MODIFICATIONS.—(1) The Secretary of a military department or the head of a Defense Agency with test and evaluation responsibilities may not implement a projected, proposed, or recommended significant modification of the test and evaluation facilities and resources of the Department, including with respect to the expansion, divestment, consolidation, or curtailment of activities, until—

(A) the Secretary or the head, as the case may be, submits to the Director a business case analysis for such modification; and

(B) the Director reviews such analysis and approves such modification.

(2) The Director shall submit to the Secretary of Defense an annual report containing the comments of the Director with respect to each business case analysis reviewed under paragraph (1)(B) during the year covered by the report.

(g) SUPERVISION OF DIRECTOR BY UNDER SECRETARY.—The Director of the Center shall be subject to the supervision of the Under Secretary of Defense for Research and Engineering. The Director shall report directly to the Under Secretary, without the interposition of any other supervising official.

(h) ADMINISTRATIVE SUPPORT OF CENTER.—The Secretary of Defense shall provide the Director

with administrative support adequate for carrying out the Director's responsibilities under this section. The Secretary shall provide the support out of the headquarters activities of the Department or any other activities that the Secretary considers appropriate.

(i) DEFINITION.—In this section, the term "Major Range and Test Facility Base" means the test and evaluation facilities and resources that are designated by the Secretary of Defense as facilities and resources comprising the Major Range and Test Facility Base.

(Added Pub. L. 107-314, div. A, title II, § 231(a)(1), Dec. 2, 2002, 116 Stat. 2487, § 196; amended Pub. L. 108-136, div. A, title II, § 212, Nov. 24, 2003, 117 Stat. 1416; Pub. L. 109-163, div. A, title II, § 258(a), title IX, § 902, Jan. 6, 2006, 119 Stat. 3185, 3397; Pub. L. 111-84, div. A, title II, § 251, Oct. 28, 2009, 123 Stat. 2241; Pub. L. 113-291, div. A, title II, § 214, Dec. 19, 2014, 128 Stat. 3326; Pub. L. 114-328, div. A, title V, § 502(c), title X, § 1081(a)(3), Dec. 23, 2016, 130 Stat. 2102, 2417; Pub. L. 115-91, div. A, title II, § 222, Dec. 12, 2017, 131 Stat. 1333; Pub. L. 115-232, div. A, title II, § 221, title IX, § 904, Aug. 13, 2018, 132 Stat. 1681, 1922; renumbered § 4173 and amended Pub. L. 116-283, div. A, title II, § 272, title XVIII, § 1845(b), Jan. 1, 2021, 134 Stat. 3502, 4247; Pub. L. 117-81, div. A, title X, § 1081(a)(5), title XVII, § 1701(u)(6)(B), Dec. 27, 2021, 135 Stat. 1919, 2154.)

## Editorial Notes

### AMENDMENTS

2021—Pub. L. 116-283, § 1845(b), as amended by Pub. L. 117-81, § 1701(u)(6)(B), renumbered section 196 of this title as this section.

Subsec. (c)(1)(C). Pub. L. 116-283, § 272(a)(1), inserted "quadrennial" before "strategic plan".

Subsec. (d). Pub. L. 117-81, § 1081(a)(5), substituted "National Defense Strategy," for "National Defense Strategy,".

Pub. L. 116-283, § 272(a)(2), inserted "Quadrennial" before "Strategic Plan" in heading and "quadrennial" before "strategic plan" wherever appearing in text.

Subsec. (d)(1). Pub. L. 116-283, § 272(e), which directed substitution of "Test Resource Management Center" for "Test Resources Management Center" in subsec. (d)(1) "of such", was executed by making substitution to "such section", meaning subsec. (d)(1) of this section, to reflect the probable intent of Congress.

Pub. L. 116-283, § 272(b), substituted "four fiscal years, and within one year after release of the National Defense Strategy," for "two fiscal years" in first sentence.

Subsec. (d)(2)(C). Pub. L. 116-283, § 272(c), substituted "for test and evaluation of the Department of Defense major weapon systems based on current and emerging threats." for "based on current and emerging threats and satisfy such performance measures."

Subsec. (d)(5). Pub. L. 116-283, § 272(d), added par. (5).

Subsec. (e)(2)(B). Pub. L. 116-283, § 272(a)(1), inserted "quadrennial" before "strategic plan".

2018—Subsec. (c)(1)(B). Pub. L. 115-232, § 904, which directed substitution of "Under Secretary of Defense for Research and Engineering" for "Under Secretary of Defense for Acquisition, Technology, and Logistics", was executed by making the substitution for "Under Secretary of Acquisition, Technology, and Logistics" to reflect the probable intent of Congress.

Subsec. (d)(1). Pub. L. 115-232, § 221(1), amended par. (1) generally. Prior to amendment, par. (1) read as follows: "Not less often than once every two fiscal years, the Director, in coordination with the Director of Operational Test and Evaluation, the Secretaries of the

military departments, and the heads of Defense Agencies with test and evaluation responsibilities, shall complete a strategic plan reflecting the needs of the Department of Defense with respect to test and evaluation facilities and resources, including modeling and simulation capabilities. Each such strategic plan shall cover the period of ten fiscal years beginning with the fiscal year in which the plan is submitted under paragraph (3). The strategic plan shall be based on a comprehensive review of the test and evaluation requirements of the Department and the adequacy of the test and evaluation facilities and resources of the Department to meet those requirements.”

Subsec. (d)(2)(C). Pub. L. 115-232, § 221(2), substituted “needed to meet current and future requirements based on current and emerging threats” for “needed to meet such requirements”.

Subsec. (g). Pub. L. 115-232, § 904, substituted “Under Secretary of Defense for Research and Engineering” for “Under Secretary of Defense for Acquisition, Technology, and Logistics”.

2017—Subsec. (d)(1). Pub. L. 115-91, § 222(1), inserted “, including modeling and simulation capabilities” after “and resources” in the first sentence.

Subsec. (e)(1). Pub. L. 115-91, § 222(2), inserted “, including modeling and simulation activities,” after “evaluation activities”.

2016—Subsec. (b)(1). Pub. L. 114-328, § 502(c), struck out second and third sentences which read as follows: “A commissioned officer serving as the Director, while so serving, holds the grade of lieutenant general or, in the case of an officer of the Navy, vice admiral. A civilian officer or employee serving as the Director, while so serving, has a pay level equivalent in grade to lieutenant general.”

Subsec. (c)(1)(A)(ii). Pub. L. 114-328, § 1081(a)(3), substituted “section 139(i)” for “section 139(i)”.

2014—Subsec. (c)(1)(B). Pub. L. 113-291, § 214(a), inserted “, including with respect to the expansion, divestment, consolidation, or curtailment of activities,” after “Base”.

Subsec. (d)(2)(E) to (G). Pub. L. 113-291, § 214(b), added subpar. (E) and redesignated former subpars. (E) and (F) as (F) and (G), respectively.

Subsec. (e)(1). Pub. L. 113-291, § 214(c), inserted “and for the period covered by the future-years defense program submitted to Congress under section 221 of this title for that fiscal year” after “activities for a fiscal year”.

Subsecs. (f) to (i). Pub. L. 113-291, § 214(d), added subsec. (f) and redesignated former subsecs. (f) to (h) as (g) to (i), respectively.

2009—Subsec. (c). Pub. L. 111-84 inserted par. (1) designation before “The Director”, redesignated former par. (1) as subpar. (A) and former subpars. (A) and (B) as cl. (i) and (ii), respectively, of subpar. (A), added subpar. (B), redesignated former pars. (2) to (4) as subpars. (C) to (E), respectively, and added par. (2).

2006—Subsec. (b)(1). Pub. L. 109-163, § 902(a), substituted “individuals who have substantial experience in the field of test and evaluation.” for “commissioned officers of the armed forces on active duty or from among senior civilian officers and employees of the Department of Defense.”

Subsec. (b)(2). Pub. L. 109-163, § 902(b), substituted “individuals” for “senior civilian officers and employees of the Department of Defense”.

Subsec. (h). Pub. L. 109-163, § 258(a), substituted “Secretary of Defense” for “Director of Operational Test and Evaluation”.

2003—Subsec. (b)(1). Pub. L. 108-136, § 212(a), substituted “on active duty or from among senior civilian officers and employees of the Department of Defense. A commissioned officer serving as the Director” for “on active duty. The Director” and inserted at end “A civilian officer or employee serving as the Director, while so serving, has a pay level equivalent in grade to lieutenant general.”

Subsec. (c)(1)(B). Pub. L. 108-136, § 212(b)(1), inserted “, other than budgets and expenditures for activities

described in section 139(i) of this title” after “Department of Defense”.

Subsec. (e)(1). Pub. L. 108-136, § 212(b)(2), struck out “, the Director of Operational Test and Evaluation,” after “each military department” and substituted “or Defense Agency head’s” for “, Director’s, or head’s”.

### Statutory Notes and Related Subsidiaries

#### EFFECTIVE DATE OF 2021 AMENDMENT

Amendment by Pub. L. 117-81 applicable as if included in the enactment of title XVIII of Pub. L. 116-283 as enacted, see section 1701(a)(2) of Pub. L. 117-81, set out in a note preceding section 3001 of this title and note below.

Amendment by section 1845(b) of Pub. L. 116-283 effective Jan. 1, 2022, with additional provisions for delayed implementation and applicability of existing law, see section 1801(d) of Pub. L. 116-283, set out as a note preceding section 3001 of this title.

#### TERMINATION OF REPORTING REQUIREMENTS

For termination, effective Dec. 31, 2021, of provisions in subsecs. (d)(1), (4) and (e)(3) of this section requiring submittal of report to Congress, see section 1061 of Pub. L. 114-328, set out as a note under section 111 of this title.

#### PROTECTION OF MAJOR RANGE AND TEST FACILITY BASE

Pub. L. 117-81, div. A, title XVI, § 1686, Dec. 27, 2021, 135 Stat. 2126, provided that: “The Secretary of Defense may authorize, consistent with the authorities of the Secretary, such actions as are necessary to mitigate threats posed by space-based assets to the security or operation of the Major Range and Test Facility Base (as defined in section 196(i) of title 10, United States Code) [now 10 U.S.C. 4173(i)].”

### § 4174. Contracts: acquisition, construction, or furnishing of test facilities and equipment

(a) A contract of a military department for research or development, or both, may provide for the acquisition or construction by, or furnishing to, the contractor, of research, developmental, or test facilities and equipment that the Secretary of the military department concerned determines to be necessary for the performance of the contract. The acquisition or construction of these research, developmental, or test facilities shall be subject to the cost principles applicable to allowable contract expenses. The facilities and equipment, and specialized housing for them, may be acquired or constructed at the expense of the United States, and may be lent or leased to the contractor with or without reimbursement, or may be sold to him at fair value. This subsection does not authorize new construction or improvements having general utility. The Secretary of Defense and the Secretaries of the military departments shall promulgate regulations necessary to give full force and effect to this section.

(b) Facilities that would not be readily removable or separable without unreasonable expense or unreasonable loss of value may not be installed or constructed under this section on property not owned by the United States, unless the contract contains—

(1) a provision for reimbursing the United States for the fair value of the facilities at the completion or termination of the contract or within a reasonable time thereafter;

(2) an option in the United States to acquire the underlying land; or