to encourage the successful execution of the full range of missions that the members are called on to perform under the national security strategy; and

(3) to identify other actions that have the potential for improving the quality of life of the members of the armed forces.

(c) CONSIDERATIONS.—The Secretary shall consider addressing the following matters as part of the quadrennial quality of life review:

(1) Infrastructure.

(2) Military construction.

(3) Physical conditions at military installations and other Department of Defense facilities.

(4) Budget plans.

(5) Adequacy of medical care for members of the armed forces and their dependents.

(6) Adequacy of housing and the basic allowance for housing and basic allowance for subsistence.

(7) Housing-related utility costs.

(8) Educational opportunities and costs.

(9) Length of deployments.

(10) Rates of pay and pay differentials between the pay of members and the pay of civilians.

(11) Retention and recruiting efforts.

(12) Workplace safety.

(13) Support services for spouses and children.

(14) Other elements of Department of Defense programs and Government policies and programs that affect the quality of life of members.

(15) Support services for Gold Star families.

(d) SUBMISSION TO CONGRESSIONAL COMMIT-TEES.—(1) The Secretary shall submit a report on each quadrennial quality of life review to the Committee on Armed Services of the Senate and the Committee on Armed Services of the House of Representatives. The report shall include the following:

(A) The assumptions used in the review.

(B) The results of the review, including a comprehensive discussion of how the quality of life of members of the armed forces affects the national security strategy of the United States.

(2) The report shall be submitted in the year following the year in which the review is conducted, but not later than the date on which the President submits the budget for the next fiscal year to Congress under section 1105(a) of title 31.

(Added Pub. L. 107-314, div. A, title V, §581(a)(1), Dec. 2, 2002, 116 Stat. 2559; amended Pub. L. 113-291, div. A, title X, §1071(c)(2), Dec. 19, 2014, 128 Stat. 3508; Pub. L. 117-81, div. A, title X, §1061(a)(1), (b), Dec. 27, 2021, 135 Stat. 1909.)

Editorial Notes

CODIFICATION

Another section 118a was renumbered section 118b of this title.

Amendments

2021—Pub. L. 117-81, 1061(a)(1), which directed renumbering of the "second section 118a" of this title, relating to quadrennial quality of life review, as section

118b of this title could not be executed because there was no second section 118a of this title after the renumbering of another section 118a of this title, relating to National Defense Sustainment and Logistics Review, as section 118b by Pub. L. 117-81, §311(b)(1)(B), (C). See 2021 Amendment note set out under section 118b of this title.

Subsec. (c)(15). Pub. L. 117–81, 1061(b), which directed the addition of par. (15) to subsec. (c) of section 118b of this title, as redesignated by Pub. L. 117–81, 1061(a)(1), was executed by adding par. (15) to subsec. (c) of this section to reflect the probable intent of Congress. See above.

2014—Subsec. (b)(1). Pub. L. 113–291 substituted "(50 U.S.C. 3043)" for "(50 U.S.C. 404a)".

Statutory Notes and Related Subsidiaries

TERMINATION OF REPORTING REQUIREMENTS

For termination, effective Dec. 31, 2021, of provisions in subsec. (d) 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.

FIRST QUADRENNIAL QUALITY OF LIFE REVIEW

Pub. L. 107–314, div. A, title V, §581(b), Dec. 2, 2002, 116 Stat. 2561, directed that the first quadrennial quality of life review under this section would be conducted during 2003, and that the report on such review was to be submitted not later than the date on which the President submitted the budget for fiscal year 2005 to Congress.

§118b. National Defense Sustainment and Logistics Review

(a) REVIEW REQUIRED.—Upon submission of each national defense strategy under section 113(g) of this title, the Secretary of Defense shall conduct a comprehensive review of the sustainment and logistics requirements necessary to support the force structure, force modernization, infrastructure, force deployment capabilities, response to risks to military installation resilience, and other elements of the defense program and policies of the United States during the subsequent 5-, 10-, and 25-year periods. Each such review shall be known as the 'National Defense Sustainment and Logistics Review'. Each such review shall be conducted in consultation with the Secretaries of the military departments, the Chiefs of Staff of the Armed Forces, all functional and geographic combatant commanders, and the Director of the Defense Logistics Agency.

(b) REPORT TO CONGRESS.—(1) Not later than the first Monday in February of the year following the fiscal year during which the National Defense Strategy was submitted under section 113(g) of this title, the Secretary shall submit to the congressional defense committees a report on the review required by subsection (a). Each such report shall include each of the following:

(A) An assessment of the strategic, operational, and tactical maritime logistics force (including non-military assets provided by Military Sealift Command, the Maritime Administration, and through the Voluntary Intermodal Sealift Agreement and Voluntary Tanker Agreement) required to support sealift, at sea logistics, and over-the-shore logistics of forces to meet steady state and contingency requirements and the strategic and intra-theater movement of supplies, personnel, and equipment. (B) An assessment of the strategic, operational, and tactical airlift and tankers (including non-military assets provided by the Civil Reserve Air Fleet) required to meet steady state and contingency requirements.

(C) An assessment of the location, configuration, material condition, and inventory of prepositioned materiel, equipment, and war reserves programs, as well as the ability to store and distribute these items to deployed military forces, required to meet steady state and contingency requirements.

(D) An assessment of the location, infrastructure, and storage capacity for petroleum, oil, and lubricant products, as well as the ability to store, transport, and distribute such products from storage supply points to deployed military forces, required to meet steady state and contingency requirements.

(E) An assessment of the capabilities, capacity, and infrastructure of the Department of Defense organic industrial base and private sector industrial base required to meet steadystate and surge software and depot maintenance requirements.

(F) An assessment of the production capability, capacity, and infrastructure, of the Department of Defense organic industrial base and private sector industrial base required to meet steady-state and surge production requirements for ammunition and other military munitions.

(G) An assessment of the condition, capacity, location, and survivability under likely threats of military infrastructure located both inside the continental United States and outside the continental United States, including agreements with and infrastructure provided by international partners, required to generate, project, and sustain military forces to meet steady-state and contingency requirements.

(H) An assessment of the cybersecurity risks to military and commercial logistics networks and information technology systems.

(I) An assessment of the gaps between the requirements identified under subparagraphs (A) through (H) compared to the actual force structure and infrastructure capabilities, capacity, and posture and the risks associated with each gap as it relates to the ability to meet the national defense strategy.

(J) A discussion of the identified mitigations being pursued to address each gap and risk identified under subparagraph (I) as well as the initiatives and resources planned to address such gaps, as included in the Department of Defense budget request submitted during the same year as the report and the applicable future-years defense program.

(K) An assessment of the extent to which wargames incorporate logistics capabilities and threats and a description of the logistics constraints and restraints to operations identified through such wargames.

(L) An assessment of the ability of the Department of Defense, the Armed Forces, and the combatant commands to leverage and integrate emergent logistics related technologies and advanced computing systems.

(M) Such other matters the Secretary of Defense considers appropriate. (2) In preparing the report under paragraph (1), the Secretary of Defense shall consult with, and consider the recommendations of, the Chairman of the Joint Chiefs of Staff.

(3) The report required under this subsection shall be submitted in classified form and shall include an unclassified summary.

(c) COMPTROLLER GENERAL REVIEW.—Not later than 180 days after the date on which Secretary submits each report required under subsection (b), the Comptroller General shall submit to the congressional defense committees a report that includes an assessment of each of the following:

(1) Whether the report includes each of the elements referred to in subsection (b).

(2) The strengths and weaknesses of the approach and methodology used in conducting the review required under subsection (a) that is covered by the report.

(3) Any other matters relating to sustainment that may arise from the report, as the Comptroller General considers appropriate.

(d) RELATIONSHIP TO BUDGET.—Nothing in this section shall be construed to affect section 1105(a) of title 31.

(Added Pub. L. 116-283, div. A, title III, §341(a), Jan. 1, 2021, 134 Stat. 3535, §118a; renumbered §118b and amended Pub. L. 117-81, div. A, title III, §311(b)(1), title X, §1081(a)(3), Dec. 27, 2021, 135 Stat. 1625, 1919.)

Editorial Notes

PRIOR PROVISIONS

A prior section 118b, added Pub. L. 110–181, div. A, title IX, 941(a), Jan. 28, 2008, 122 Stat. 286, related to quadrennial roles and missions review, prior to repeal by Pub. L. 113–291, div. A, title X, 91072(b)(1), Dec. 19, 2014, 128 Stat. 3516, effective Oct. 1, 2015.

Amendments

2021—Pub. L. 117-81, \$\$311(b)(1)(B), (C), 1081(a)(3), made similar amendments, renumbering section 118a, relating to National Defense Sustainment and Logistics Review, as this section. Section 1081(a)(3), which directed the renumbering of the "second" section 118a, as added by section 341 of Pub. L. 116-283, was read as referring to this section, which had appeared as the first section 118a, to reflect the probable intent of Congress. Amendment by section 1081(a)(3) to be treated as applying before amendment by section 311(b)(1)(B), (C), see section 1081(d) of Pub. L. 117-81, set out as a Coordination of Certain Sections of an Act With Other Provisions of That Act under section 101 of this title.

Subsec. (a). Pub. L. 117-81, §311(b)(1)(A), substituted "capabilities, response to risks to military installation resilience," for "capabilities,".

Statutory Notes and Related Subsidiaries

DEADLINE FOR SUBMITTAL OF FIRST REPORT

Pub. L. 116-283, div. A, title III, §341(c), Jan. 1, 2021, 134 Stat. 3537, as amended by Pub. L. 117-81, div. A, title III, §311(b)(2)(B), Dec. 27, 2021, 135 Stat. 1625, provided that: "Notwithstanding the deadline in subsection (b)(1) of section 118b of title 10, United States Code, as added by subsection (a), the Secretary of Defense shall submit the first report under such section not later than the date that is 18 months after the date of the enactment of this Act [Jan. 1, 2021], unless a new National Defense Strategy is released prior to such date."

[Pub. L. 117-81, div. A, title III, 311(b)(2)(B), which directed amendment of section "314(c)" of Pub. L.

116-283 by substituting "section 118b" for "section 118a", was executed by making the amendment to section 341(c) of Pub. L. 116-283, set out above, to reflect the probable intent of Congress.]

§118c. National Defense Science and Technology Strategy

(a) IN GENERAL.—The Secretary of Defense shall develop a strategy—

(1) to articulate the science and technology priorities, goals, and investments of the Department of Defense;

(2) to make recommendations on the future of the defense research and engineering enterprise and its continued success in an era of strategic competition; and

(3) to establish an integrated approach to the identification, prioritization, development, and fielding of emerging capabilities and technologies.

(b) ELEMENTS.—The strategy required under subsection (a) shall—

(1) inform the development of each National Defense Strategy under section 113(g) of this title and be aligned with Government-wide strategic science and technology priorities, including the defense budget priorities of the Office of Science and Technology Policy of the President;

(2) link the priorities, goals, and investments in subsection (a)(1) with needed critical enablers to specific programs, or broader portfolios, including—

(A) personnel and workforce capabilities;

(B) facilities for research and test infrastructure;

(C) relationships with academia, the acquisition community, the operational community, the defense industry, and the commercial sector; and

(D) funding, investments, personnel, facilities, and relationships with other departments and agencies of the Federal Government outside the Department of Defense without which defense capabilities would be severely degraded;

(3) support the coordination of acquisition priorities, programs, and timelines of the Department with the activities of the defense research and engineering enterprise;

(4) include recommendations for changes in authorities, regulations, policies, or any other relevant areas, that would support the achievement of the goals set forth in the strategy;

(5) identify mechanisms that may be used to identify critical capabilities and technological applications required to address operational challenges outlined in the National Defense Strategy under section 113(g) of this title;

(6) identify processes to inform senior leaders and policy makers on the potential impacts of emerging technologies for the purpose of shaping the development of policies and regulations;

(7) support the efficient integration of capabilities and technologies to close near-term, mid-term, and long-term capability gaps;

(8) support the development of appropriate investments in research and technology devel-

opment within the Department, and appropriate partnerships with the defense industry and commercial industry; and

(9) identify mechanisms to provide information on defense technology priorities to industry to enable industry to invest deliberately in emerging technologies to build and broaden the capabilities of the industrial base.

(c) COORDINATION.—The Secretary of Defense shall develop the strategy under subsection (a) in coordination with relevant entities within the Office of the Secretary of Defense, the military departments, the research organizations of Defense Agencies and Department of Defense Field Activities, the intelligence community, defense and technology industry partners, research and development partners, other Federal research agencies, allies and partners of the United States, and other appropriate organizations.

(d) CONSIDERATIONS.—In developing the strategy under subsection (a), the Secretary of Defense shall consider—

(1) the operational challenges identified in the National Defense Strategy and the technological threats and opportunities identified through the global technology review and assessment activities of the Department of Defense, the intelligence community, and other technology partners;

(2) current military requirements and emerging technologies in the defense and commercial sectors:

(3) the capabilities of foreign near-peer and peer nations;

(4) the need to support the development of a robust trusted and assured industrial base to manufacture and sustain the technologies and capabilities to meet defense requirements; and

(5) near-term, mid-term, and long-term technology and capability development goals.

(e) REPORTS.-

(1) SUBSEQUENT REPORTS AND UPDATES.—Not later than February 1 of the year following each fiscal year in which the National Defense Strategy is submitted under section 113(g) of this title, the Secretary of Defense shall submit to the congressional defense committees a report that includes an updated version of the strategy under subsection (a). Each update to such strategy shall be prepared for purposes of such report based on emerging requirements, technological developments in the United States, and technical intelligence derived from global technology reviews conducted by the Secretary of Defense.

(2) FORM OF REPORTS.—The reports submitted under paragraph (1) may be submitted in a form determined appropriate by the Secretary of Defense, which may include classified, unclassified, and publicly releasable formats, as appropriate.

(f) BRIEFING.—Not later than 90 days after the date on which the strategy under subsection (a) is completed, the Secretary of Defense shall provide to the Committees on Armed Services of the Senate and the House of Representatives a briefing on the implementation plan for the strategy.

(g) DESIGNATION.—The strategy developed under subsection (a) shall be known as the "Na-