

(1) for the engineering and manufacturing development of a weapon system, including embedded software; or

(2) for the production of a weapon system, including embedded software.

(Added Pub. L. 115–91, div. A, title VIII, §834(a)(1), Dec. 12, 2017, 131 Stat. 1469.)

EFFECTIVE DATE

Pub. L. 115–91, div. A, title VIII, §834(b), Dec. 12, 2017, 131 Stat. 1470, provided that: “Subsections (c) and (d) of section 2443 of title 10, United States Code, as added by subsection (a), shall apply with respect to any covered contract (as defined in that section) for which the contract solicitation is issued on or after the date occurring one year after the date of the enactment of this Act [Dec. 12, 2017].”

IMPLEMENTATION OF RECOMMENDATIONS OF THE INDEPENDENT STUDY ON CONSIDERATION OF SUSTAINMENT IN WEAPONS SYSTEMS LIFE CYCLE

Pub. L. 115–232, div. A, title VIII, §832, Aug. 13, 2018, 132 Stat. 1857, provided that:

“(a) IMPLEMENTATION REQUIRED.—Not later than 18 months after the date of the enactment of this Act [Aug. 13, 2018], the Secretary of Defense shall, except as provided under subsection (b), commence implementation of each recommendation submitted as part of the independent assessment produced under section 844 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114–328; 130 Stat. 2290).

“(b) EXCEPTIONS.—

“(1) DELAYED IMPLEMENTATION.—The Secretary of Defense may commence implementation of a recommendation described under subsection (a) later than the date required under such subsection if the Secretary provides the congressional defense committees [Committees on Armed Services and Appropriations of the Senate and the House of Representatives] with a specific justification for the delay in implementation of such recommendation.

“(2) NONIMPLEMENTATION.—The Secretary of Defense may opt not to implement a recommendation described under subsection (a) if the Secretary provides to the congressional defense committees—

“(A) the reasons for the decision not to implement the recommendation; and

“(B) a summary of the alternative actions the Secretary plans to take to address the purposes underlying the recommendation.

“(c) IMPLEMENTATION PLANS.—For each recommendation that the Secretary is implementing, or that the Secretary plans to implement, the Secretary shall submit to the congressional defense committees—

“(1) a summary of actions that have been taken to implement the recommendation; and

“(2) a schedule, with specific milestones, for completing the implementation of the recommendation.”

ENGINEERING CHANGE AUTHORIZED

Pub. L. 115–91, div. A, title VIII, §834(c), Dec. 12, 2017, 131 Stat. 1470, provided that: “Subject to the availability of appropriations, the Secretary of Defense may fund engineering changes to the design of a weapon system in the engineering and manufacturing development phase or in the production phase of an acquisition program to improve reliability or maintainability of the weapon system and reduce projected operating and support costs.”

[CHAPTER 144A—REPEALED]

[[§§ 2445a to 2445d. Repealed. Pub. L. 114–328, div. A, title VIII, § 846(1), Dec. 23, 2016, 130 Stat. 2292]

Section 2445a, added Pub. L. 109–364, div. A, title VIII, §816(a)(1), Oct. 17, 2006, 120 Stat. 2323; amended Pub. L.

110–417, [div. A], title VIII, §812(a)(1), (2), Oct. 14, 2008, 122 Stat. 4525; Pub. L. 111–84, div. A, title VIII, §841(c), Oct. 28, 2009, 123 Stat. 2418; Pub. L. 113–66, div. A, title X, §1092(a), Dec. 26, 2013, 127 Stat. 877, defined terms for this chapter.

Section 2445b, added Pub. L. 109–364, div. A, title VIII, §816(a)(1), Oct. 17, 2006, 120 Stat. 2323; amended Pub. L. 110–417, [div. A], title VIII, §812(b), Oct. 14, 2008, 122 Stat. 4525; Pub. L. 111–84, div. A, title VIII, §841(a), Oct. 28, 2009, 123 Stat. 2418; Pub. L. 111–383, div. A, title VIII, §805(b), Jan. 7, 2011, 124 Stat. 4259; Pub. L. 113–66, div. A, title X, §1092(d)(1), Dec. 26, 2013, 127 Stat. 877; Pub. L. 114–92, div. A, title VIII, §891(a), Nov. 25, 2015, 129 Stat. 951, related to submittal to Congress of cost, schedule, and performance information.

Section 2445c, added Pub. L. 109–364, div. A, title VIII, §816(a)(1), Oct. 17, 2006, 120 Stat. 2324; amended Pub. L. 110–417, [div. A], title VIII, §812(c), Oct. 14, 2008, 122 Stat. 4526; Pub. L. 111–23, title I, §101(d)(6), May 22, 2009, 123 Stat. 1710; Pub. L. 111–84, div. A, title VIII, §841(b), Oct. 28, 2009, 123 Stat. 2418; Pub. L. 112–81, div. A, title VIII, §811, Dec. 31, 2011, 125 Stat. 1491; Pub. L. 113–66, div. A, title X, §1092(b), (c), (d)(2), (e), Dec. 26, 2013, 127 Stat. 877, 878; Pub. L. 113–291, div. A, title VIII, §802, Dec. 19, 2014, 128 Stat. 3427; Pub. L. 114–92, div. A, title VIII, §891(b), Nov. 25, 2015, 129 Stat. 952, required quarterly reports by program managers and reports on significant changes in programs.

Section 2445d, added Pub. L. 109–364, div. A, title VIII, §816(a)(1), Oct. 17, 2006, 120 Stat. 2326; amended Pub. L. 111–84, div. A, title VIII, §817(a), Oct. 28, 2009, 123 Stat. 2408, provided a rule of construction with other reporting requirements.

EFFECTIVE DATE OF REPEAL

Pub. L. 114–328, div. A, title VIII, §846, Dec. 23, 2016, 130 Stat. 2292, provided in part that the repeal of this chapter is effective Sept. 30, 2017.

CHAPTER 144B—WEAPON SYSTEMS DEVELOPMENT AND RELATED MATTERS

Subchapter	Sec.
I. Modular Open System Approach in Development of Weapon Systems	2446a
II. Development, Prototyping, and Deployment of Weapon System Components and Technology ¹	2447a
III. Cost, Schedule, and Performance of Major Defense Acquisition Programs	2448a

SUBCHAPTER I—MODULAR OPEN SYSTEM APPROACH IN DEVELOPMENT OF WEAPON SYSTEMS

Sec.	Requirement for modular open system approach in major defense acquisition programs; definitions.
2446a.	Requirement for modular open system approach in major defense acquisition programs; definitions.
2446b.	Requirement to address modular open system approach in program capabilities development and acquisition weapon system design.
2446c.	Requirements relating to availability of major system interfaces and support for modular open system approach.

§ 2446a. Requirement for modular open system approach in major defense acquisition programs; definitions

(a) MODULAR OPEN SYSTEM APPROACH REQUIREMENT.—A major defense acquisition program that receives Milestone A or Milestone B approval after January 1, 2019, shall be designed and developed, to the maximum extent practicable, with a modular open system approach to

¹ So in original. Does not conform to subchapter heading.

enable incremental development and enhance competition, innovation, and interoperability.

(b) DEFINITIONS.—In this chapter:

(1) The term “modular open system approach” means, with respect to a major defense acquisition program, an integrated business and technical strategy that—

(A) employs a modular design that uses major system interfaces between a major system platform and a major system component, between major system components, or between major system platforms;

(B) is subjected to verification to ensure major system interfaces comply with, if available and suitable, widely supported and consensus-based standards;

(C) uses a system architecture that allows severable major system components at the appropriate level to be incrementally added, removed, or replaced throughout the life cycle of a major system platform to afford opportunities for enhanced competition and innovation while yielding—

- (i) significant cost savings or avoidance;
- (ii) schedule reduction;
- (iii) opportunities for technical upgrades;
- (iv) increased interoperability, including system of systems interoperability and mission integration; or
- (v) other benefits during the sustainment phase of a major weapon system; and

(D) complies with the technical data rights set forth in section 2320 of this title.

(2) The term “major system platform” means the highest level structure of a major weapon system that is not physically mounted or installed onto a higher level structure and on which a major system component can be physically mounted or installed.

(3) The term “major system component”—

(A) means a high level subsystem or assembly, including hardware, software, or an integrated assembly of both, that can be mounted or installed on a major system platform through well-defined major system interfaces; and

(B) includes a subsystem or assembly that is likely to have additional capability requirements, is likely to change because of evolving technology or threat, is needed for interoperability, facilitates incremental deployment of capabilities, or is expected to be replaced by another major system component.

(4) The term “major system interface”—

(A) means a shared boundary between a major system platform and a major system component, between major system components, or between major system platforms, defined by various physical, logical, and functional characteristics, such as electrical, mechanical, fluidic, optical, radio frequency, data, networking, or software elements; and

(B) is characterized clearly in terms of form, function, and the content that flows across the interface in order to enable technological innovation, incremental improvements, integration, and interoperability.

(5) The term “program capability document” means, with respect to a major defense acquisition program, a document that specifies capability requirements for the program, such as a capability development document or a capability production document.

(6) The terms “program cost targets” and “fielding target” have the meanings provided in section 2448a(a) of this title.

(7) The term “major defense acquisition program” has the meaning provided in section 2430 of this title.

(8) The term “major weapon system” has the meaning provided in section 2379(f) of this title.

(Added Pub. L. 114-328, div. A, title VIII, §805(a)(1), Dec. 23, 2016, 130 Stat. 2252.)

EFFECTIVE DATE

Pub. L. 114-328, div. A, title VIII, §805(a)(4), Dec. 23, 2016, 130 Stat. 2255, provided that: “Subchapter I of chapter 144B of title 10, United States Code, as added by paragraph (1), shall take effect on January 1, 2017.”

§ 2446b. Requirement to address modular open system approach in program capabilities development and acquisition weapon system design

(a) PROGRAM CAPABILITY DOCUMENT.—A program capability document for a major defense acquisition program shall identify and characterize—

(1) the extent to which requirements for system performance are likely to evolve during the life cycle of the system because of evolving technology, threat, or interoperability needs; and

(2) for requirements that are expected to evolve, the minimum acceptable capability that is necessary for initial operating capability of the major defense acquisition program.

(b) ANALYSIS OF ALTERNATIVES.—The Director of Cost Assessment and Performance Evaluation, in formulating study guidance for analyses of alternatives for major defense acquisition programs and performing such analyses under section 139a(d)(4) of this title, shall ensure that any such analysis for a major defense acquisition program includes consideration of evolutionary acquisition, prototyping, and a modular open system approach.

(c) ACQUISITION STRATEGY.—In the case of a major defense acquisition program that uses a modular open system approach, the acquisition strategy required under section 2431a of this title shall—

(1) clearly describe the modular open system approach to be used for the program;

(2) differentiate between the major system platform and major system components being developed under the program, as well as major system components developed outside the program that will be integrated into the major defense acquisition program;

(3) clearly describe the evolution of major system components that are anticipated to be added, removed, or replaced in subsequent increments;

(4) identify additional major system components that may be added later in the life cycle of the major system platform;