- of relevant safety and performance records and costs:
- (F) a calculation of life-cycle costs including— $\,$
 - (i) an examination of likely research and development costs and the levels of uncertainty associated with such estimated costs;
 - (ii) an examination of likely production and deployment costs and the levels of uncertainty associated with such estimated costs:
 - (iii) an examination of likely operating and support costs and the levels of uncertainty associated with such estimated costs:
 - (iv) if they are likely to be significant, an examination of likely disposal costs and the levels of uncertainty associated with such estimated costs; and
 - (v) such additional measures as the Commandant or the Secretary of the department in which the Coast Guard is operating determines to be necessary for appropriate evaluation of the capability or asset; and
- (G) the business case for each viable alternative.
- (d) TEST AND EVALUATION MASTER PLAN.—
- (1) IN GENERAL.—For any Level 1 or Level 2 acquisition project or program the Chief Acquisition Officer must approve a test and evaluation master plan specific to the acquisition project or program for the capability, asset, or subsystems of the capability or asset and intended to minimize technical, cost, and schedule risk as early as practicable in the development of the project or program.
- (2) TEST AND EVALUATION STRATEGY.—The master plan shall—
 - (A) set forth an integrated test and evaluation strategy that will verify that capability-level or asset-level and subsystem-level design and development, including performance and supportability, have been sufficiently proven before the capability, asset, or subsystem of the capability or asset is approved for production; and
- (B) require that adequate developmental tests and evaluations and operational tests and evaluations established under subparagraph (A) are performed to inform production decisions.
- (3) OTHER COMPONENTS OF THE MASTER PLAN.—At a minimum, the master plan shall identify—
 - (A) the key performance parameters to be resolved through the integrated test and evaluation strategy;
 - (B) the performance data to be used to determine whether the key performance parameters have been resolved;
 - (C) critical operational issues to be assessed in addition to the key performance parameters;
 - (D) the results during test and evaluation that will be required to demonstrate that a capability, asset, or subsystem meets performance requirements;
 - (E) specific development test and evaluation phases and the scope of each phase;

- (F) modeling and simulation activities to be performed, if any, and the scope of such activities:
- (G) early operational assessments to be performed, if any, and the scope of such assessments;
- (H) operational test and evaluation phases; (I) an estimate of the resources, including funds, that will be required for all test, evaluation, assessment, modeling, and simulation activities; and
- (J) the Government entity or independent entity that will perform the test, evaluation, assessment, modeling, and simulation ac-
- (4) UPDATE.—The Chief Acquisition Officer must approve an updated master plan whenever there is a revision to project or program test and evaluation strategy, scope, or phasing.
 - (5) LIMITATION.—The Coast Guard may not—
 (A) proceed beyond that phase of the acquisition process that entails approving the supporting acquisition of a capability or asset before the master plan is approved by the Chief Acquisition Officer; or
 - (B) award any production contract for a capability, asset, or subsystem for which a master plan is required under this subsection before the master plan is approved by the Chief Acquisition Officer.
- (e) LIFE-CYCLE COST ESTIMATES.—
- (1) IN GENERAL.—The Commandant shall implement mechanisms to ensure the development and regular updating of life-cycle cost estimates for each acquisition with a total acquisition cost that equals or exceeds \$10,000,000 and an expected service life of 10 or more years, and to ensure that these estimates are considered in decisions to develop or produce new or enhanced capabilities and assets.
- (2) TYPES OF ESTIMATES.—In addition to lifecycle cost estimates that may be developed by acquisition program offices, the Commandant shall require that an independent life-cycle cost estimate be developed for each Level 1 or Level 2 acquisition project or program.
- (3) REQUIRED UPDATES.—For each Level 1 or Level 2 acquisition project or program the Commandant shall require that life-cycle cost estimates shall be updated before each milestone decision is concluded and the project or program enters a new acquisition phase.
- (Added Pub. L. 111–281, title IV, § 402(a), Oct. 15, 2010, 124 Stat. 2942, § 572; amended Pub. L. 114–120, title II, § 204(a), Feb. 8, 2016, 130 Stat. 34; renumbered § 1132, Pub. L. 115–282, title I, § 108(b), Dec. 4, 2018, 132 Stat. 4208.)

AMENDMENTS

- $2018\mathrm{--Pub}.$ L. $115\mathrm{--}282$ renumbered section 572 of this title as this section.
- 2016—Subsec. (d)(3)(B) to (J). Pub. L. 114-120 added subpars. (B) and (D) and redesignated former subpar. (B) as (C) and former subpars. (C) to (H) as (E) to (J), respectively.

§ 1133. Preliminary development and demonstration

(a) IN GENERAL.—The Commandant shall ensure that developmental test and evaluation,

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operational test and evaluation, life-cycle cost estimates, and the development and demonstration requirements applied by this chapter to acquisition projects and programs are met to confirm that the projects or programs meet the requirements identified in the mission-analysis and affordability assessment prepared under section 1131(a)(2), the operational requirements developed under section 1132(a)(1) and the following development and demonstration objectives:

- (1) To demonstrate that the design, manufacturing, and production solution is based upon a stable, producible, and cost-effective product design.
- (2) To ensure that the product capabilities meet contract specifications, acceptable operational performance requirements, and system security requirements.
- (3) To ensure that the product design is mature enough to commit to full production and deployment.

(b) TESTS AND EVALUATIONS.—

- (1) IN GENERAL.—The Commandant shall ensure that the Coast Guard conducts developmental tests and evaluations and operational tests and evaluations of a capability or asset and the subsystems of the capability or asset in accordance with the master plan prepared for the capability or asset under section 1132(d)(1).1
- (2) USE OF THIRD PARTIES.—The Commandant shall ensure that the Coast Guard uses independent third parties with expertise in testing and evaluating the capabilities or assets and the subsystems of the capabilities or assets being acquired to conduct developmental tests and evaluations and operational tests and evaluations whenever the Coast Guard lacks the capability to conduct the tests and evaluations required by a master plan.
- (3) COMMUNICATION OF SAFETY CONCERNS.— The Commandant shall ensure that independent third parties and Government employees that identify safety concerns during developmental or operational tests and evaluations or through independent or Government-conducted design assessments of capabilities or assets and subsystems of capabilities or assets to be acquired by the Coast Guard communicate such concerns as soon as practicable, but not later than 30 days after the completion of the test or assessment event or activity that identified the safety concern, to the program manager for the capability or asset and the subsystems concerned and to the Chief Acquisition Officer.
- (4) REPORTING OF SAFETY CONCERNS.—The Commandant shall ensure that any safety concerns that have been communicated under paragraph (3) for an acquisition program or project are reported to the appropriate congressional committees at least 90 days before the award of any contract or issuance of any delivery order or task order for low, initial, or full-rate production of the capability or asset concerned if they will remain uncorrected or unmitigated at the time such a contract is awarded or delivery order or task order is is-

sued. The report shall include a justification for the approval of that level of production of the capability or asset before the safety concerns are corrected or mitigated. The report shall also include an explanation of the actions that will be taken to correct or mitigate the safety concerns, the date by which those actions will be taken, and the adequacy of current funding to correct or mitigate the safety concerns.

(5) ASSET ALREADY IN LOW, INITIAL, OR FULL-RATE PRODUCTION.—The Commandant shall ensure that if an independent third party or a Government employee identifies a safety concern with a capability or asset or any subsystems of a capability or asset not previously identified during operational test and evaluation of a capability or asset already in low, initial, or full-rate production—

(A) the Commandant, through the Assistant Commandant for Capability, shall notify the program manager and the Chief Acquisition Officer of the safety concern as soon as practicable, but not later than 30 days after the completion of the test and evaluation event or activity that identified the safety

concern; and

(B) the Deputy Commandant for Mission Support shall notify the Commandant and the Deputy Commandant for Operations of the safety concern within 50 days after the notification required under subparagraph (A), and include in such notification—

- (i) an explanation of the actions that will be taken to correct or mitigate the safety concern in all capabilities or assets and subsystems of the capabilities or assets yet to be produced, and the date by which those actions will be taken:
- (ii) an explanation of the actions that will be taken to correct or mitigate the safety concern in previously produced capabilities or assets and subsystems of the capabilities or assets, and the date by which those actions will be taken; and
- (iii) an assessment of the adequacy of current funding to correct or mitigate the safety concern in capabilities or assets and subsystems of the capabilities or assets and in previously produced capabilities or assets and subsystems.

(c) TECHNICAL CERTIFICATION.—

- (1) IN GENERAL.—The Commandant shall ensure that any Level 1 or Level 2 acquisition project or program is certified by the technical authority of the Coast Guard after review by an independent third party with capabilities in the mission area, asset, or particular asset component.
- (2) TEMPEST TESTING.—The Commandant shall—
- (A) cause all electronics on all aircraft, surface, and shore capabilities and assets that require TEMPEST certification to be tested in accordance with TEMPEST standards and communications security (comsec) standards by an independent third party that is authorized by the Federal Government to perform such testing; and
- (B) certify that the assets meet all applicable TEMPEST requirements.

¹ See References in Text note below.

- (3) CUTTER CLASSIFICATION.—
- (A) IN GENERAL.—The Commandant shall cause each cutter, other than a National Security Cutter, acquired by the Coast Guard and delivered after the date of enactment of the Coast Guard Authorization Act of 2010 to be classed by the American Bureau of Shipping before final acceptance.
- [(B) Repealed. Pub. L. 112-213, title II, §210(c)(2)(B), Dec. 20, 2012, 126 Stat. 1551.]
- (4) OTHER VESSELS.—The Commandant shall cause the design and construction of each National Security Cutter, other than National Security Cutters 1, 2, and 3, to be assessed by an independent third party with expertise in vessel design and construction certification.
- (5) AIRCRAFT AIRWORTHINESS.—The Commandant shall cause all aircraft and aircraft engines acquired by the Coast Guard to be assessed for airworthiness by an independent third party with expertise in aircraft and aircraft engine certification before final acceptance

(Added Pub. L. 111–281, title IV, § 402(a), Oct. 15, 2010, 124 Stat. 2944, § 573; amended Pub. L. 112–213, title II, § 210(c)(2)(B), Dec. 20, 2012, 126 Stat. 1551; Pub. L. 115–232, div. C, title XXXV, § 3522, Aug. 13, 2018, 132 Stat. 2314; renumbered § 1133 and amended Pub. L. 115–282, title I, § 108(b), 123(b)(2), Dec. 4, 2018, 132 Stat. 4208, 4240.)

REFERENCES IN TEXT

Section 1132(d)(1), referred to in subsec. (b)(1), was, prior to amendment of this section by Pub. L. 115–282, a reference to section 572(d)(1) of this title, which was redesignated section 572(f)(1) of this title by Pub. L. 114–120, title II, $\S204(a)(1)$, Feb. 8, 2016, 130 Stat. 34. Section 572 of this title was renumbered section 1132 of this title by Pub. L. 115–282, title I, $\S108(b)(2)$, Dec. 4, 2018, 132 Stat. 4208.

The date of enactment of the Coast Guard Authorization Act of 2010, referred to in subsec. (c)(3)(A), is the date of enactment of Pub. L. 111–281, which was approved Oct. 15, 2010.

AMENDMENTS

 $2018\mathrm{--Pub.}$ L. $115\mathrm{-}282,~\$108(b),$ renumbered section 573 of this title as this section.

Subsec. (a). Pub. L. 115–282, §123(b)(2), in introductory provisions, substituted "section 1131(a)(2)" for "section 571(a)(2)" and "section 1132(a)(1)" for "section 572(a)(1)"

Subsec. (b)(1). Pub. L. 115-282, §123(b)(2), substituted "section 1132(d)(1)" for "section 572(d)(1)".

Subsec. (b)(3). Pub. L. 115-232, §3522(1), substituted "ensure that independent third parties and Government employees that identify safety concerns" for "require that safety concerns identified" and "Coast Guard communicate such concerns as" for "Coast Guard shall be communicated as".

Subsec. (b)(4). Pub. L. 115–232, §3522(2), substituted "The Commandant shall ensure that any safety concerns that have been communicated under paragraph (3) for an acquisition program or project are reported" for "Any safety concerns that have been reported to the Chief Acquisition Officer for an acquisition program or project shall be reported by the Commandant".

Subsec. (b)(5). Pub. L. 115–232, §3522(3)(A), added introductory provisions and struck out former introductory provisions which read as follows: "If operational test and evaluation of a capability or asset already in low, initial, or full-rate production identifies a safety concern with the capability or asset or any subsystems

of the capability or asset not previously identified during developmental or operational test and evaluation, the Commandant shall—".

Subsec. (b)(5)(A). Pub. L. 115–232, §3522(3)(B), inserted "the Commandant, through the Assistant Commandant for Capability, shall" before "notify". Subsec. (b)(5)(B). Pub. L. 115–232, §3522(3)(C), substituted "the Deputy Commandant for Mission Support

Subsec. (b)(5)(B). Pub. L. 115–232, §3522(3)(C), substituted "the Deputy Commandant for Mission Support shall notify the Commandant and the Deputy Commandant for Operations of the safety concern within 50 days after the notification required under subparagraph (A), and include in such notification" for "notify the Chief Acquisition Officer and include in such notification" in introductory provisions.

tion" in introductory provisions.

Subsec. (c)(2)(A). Pub. L. 115–232, §3522(4)(A), struck out "and that are delivered after the date of enactment of the Coast Guard Authorization Act of 2010" after

"TEMPEST certification".

Subsec. (c)(5). Pub. L. 115–232, §3522(4)(B), struck out "and delivered after the date of enactment of the Coast Guard Authorization Act of 2010" after "acquired by the Coast Guard".

2012—Subsec. (c)(3)(B). Pub. L. 112–213 struck out subpar. (B). Text read as follows: "Not later than December 31, 2011, and biennially thereafter, the Commandant shall provide a report to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate identifying which, if any, Coast Guard cutters that have been issued a certificate of classification by the American Bureau of Shipping have not been maintained in class and detailing the reasons why they have not been maintained in class."

NATIONAL SECURITY CUTTERS

Pub. L. 115–282, title III, §311(f), Dec. 4, 2018, 132 Stat. 4249, provided that: "The Secretary of the department in which the Coast Guard is operating is authorized to enter into a multiyear contract for the procurement of a tenth, eleventh, and twelfth National Security Cutter and associated government-furnished equipment."

Pub. L. 115-282, title VIII, §818(a), Dec. 4, 2018, 132 Stat. 4307, provided that: "The Commandant of the Coast Guard may not certify an eighth National Security Cutter as Ready for Operations before the date on which the Commandant provides to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate—

"(1) a notification of a new standard method for tracking operational employment of Coast Guard major cutters that does not include time during which such a cutter is away from its homeport for maintenance or repair; and

"(2) a report analyzing cost and performance for different approaches to achieving varied levels of operational employment using the standard method required by paragraph (1) that, at a minimum—

"(A) compares over a 30-year period the average annualized baseline cost and performances for a certified National Security Cutter that operated for 185 days away from homeport or an equivalent alternative measure of operational tempo—

"(i) against the cost of a 15 percent increase in days away from homeport or an equivalent alternative measure of operational tempo for a National Security Cutter; and

tional Security Cutter; and
"(ii) against the cost of the acquisition and operation of an additional National Security Cutter; and

"(B) examines the optimal level of operational employment of National Security Cutters to balance National Security Cutter cost and mission performance."

§ 1134. Acquisition, production, deployment, and support

(a) IN GENERAL.—The Commandant shall—

(1) ensure there is a stable and efficient production and support capability to develop an asset or capability for the Coast Guard;