

sure the project or program is included in the Coast Guard Capital Investment Plan.

(2) ASSESSMENT OF TRADE-OFFS.—In conducting an affordability assessment under subsection (a)(2)(B), the Commandant shall develop and implement mechanisms to ensure that trade-offs among cost, schedule, and performance are considered in the establishment of preliminary operational requirements for development and production of new assets and capabilities for Level 1 and Level 2 acquisitions projects and programs.

(c) HUMAN RESOURCE CAPITAL PLANNING.—The Commandant shall develop staffing predictions, define human capital performance initiatives, and identify preliminary training needs required to implement each Level 1 and Level 2 acquisition project and program.

(Added Pub. L. 111–281, title IV, § 402(a), Oct. 15, 2010, 124 Stat. 2941, § 571; renumbered § 1131, Pub. L. 115–282, title I, § 108(b), Dec. 4, 2018, 132 Stat. 4208.)

Editorial Notes

AMENDMENTS

2018—Pub. L. 115–282 renumbered section 571 of this title as this section.

§ 1132. Acquisition

(a) IN GENERAL.—The Commandant may not establish a Level 1 or Level 2 acquisition project or program until the Commandant—

- (1) clearly defines the operational requirements for the project or program;
- (2) establishes the feasibility of alternatives;
- (3) develops an acquisition project or program baseline;
- (4) produces a life-cycle cost estimate; and
- (5) assesses the relative merits of alternatives to determine a preferred solution in accordance with the requirements of this section.

(b) SUBMISSION REQUIRED BEFORE PROCEEDING.—Any Coast Guard Level 1 or Level 2 acquisition project or program may not begin to obtain any capability or asset or proceed beyond that phase of its development that entails approving the supporting acquisition until the Commandant submits to the appropriate congressional committees the following:

- (1) The key performance parameters, the key system attributes, and the operational performance attributes of the capability or asset to be acquired under the proposed acquisition project or program.
- (2) A detailed list of the systems or other capabilities with which the capability or asset to be acquired is intended to be interoperable, including an explanation of the attributes of interoperability.
- (3) The anticipated acquisition project or program baseline and acquisition unit cost for the capability or asset to be acquired under the project or program.
- (4) A detailed schedule for the acquisition process showing when all capability and asset acquisitions are to be completed and when all acquired capabilities and assets are to be initially and fully deployed.

(c) ANALYSIS OF ALTERNATIVES.—

(1) IN GENERAL.—The Coast Guard may not acquire an experimental or technically immature capability or asset or implement a Level 1 or Level 2 acquisition project or program, unless it has prepared an analysis of alternatives for the capability or asset to be acquired in the concept and technology development phase of the acquisition process for the capability or asset.

(2) REQUIREMENTS.—The analysis of alternatives shall be prepared by a federally funded research and development center, a qualified entity of the Department of Defense, or a similar independent third-party entity that has appropriate acquisition expertise and has no financial interest in any part of the acquisition project or program that is the subject of the analysis. At a minimum, the analysis of alternatives shall include—

(A) an assessment of the technical maturity of the capability or asset, and technical and other risks;

(B) an examination of capability, interoperability, and other advantages and disadvantages;

(C) an evaluation of whether different combinations or quantities of specific assets or capabilities could meet the Coast Guard's overall performance needs;

(D) a discussion of key assumptions and variables, and sensitivity to change in such assumptions and variables;

(E) when an alternative is an existing capability, asset, or prototype, an evaluation 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 in-

tended 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 activities.

(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 develop-

ment 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.**—For each Level 1 or Level 2 acquisition project or program, in addition to life-cycle cost estimates developed under paragraph (1), the Commandant shall require that—

(A) life-cycle cost estimates developed under paragraph (1) be updated before—

(i) each milestone decision is concluded; and

(ii) the project or program enters a new acquisition phase; and

(B) an independent cost estimate or independent cost assessment, as appropriate, be developed to validate life-cycle cost estimates developed under paragraph (1).

(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; Pub. L. 117-263, div. K, title CXII, § 11210, Dec. 23, 2022, 136 Stat. 4012.)

Editorial Notes

AMENDMENTS

2022—Subsec. (e)(2), (3). Pub. L. 117-263 added par. (2) and struck out former pars. (2) and (3) which read as follows:

“(2) **TYPES OF ESTIMATES.**—In addition to life-cycle 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.”

2018—Pub. L. 115-282 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, 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 oper-