for persons employed by that contractor to be involved in the operation, maintenance, and support of the system being tested when the system is deployed in combat."

Subsec. (c). Pub. L. 100–180, §802(a)(3), (c), (d)(1), designated existing provisions as par. (1), substituted "missile program, or covered product improvement program" for "or missile program", and inserted at end "The Secretary shall include with any such certification a report explaining how the Secretary plans to evaluate the survivability or the lethality of the system or program and assessing possible alternatives to realistic survivability testing of the system or program."

Pub. L. 100-180, §802(d)(2), designated existing provisions of former subsec. (d) as par. (2) of subsec. (c) and struck out heading of former subsec. (d) "Waiver in time of war or mobilization".

Subsec. (d). Pub. L. 100-180, §802(d)(3), added subsec. (d). Former subsec. (d) redesignated subsec. (c)(2).

Subsec. (e)(1)(B). Pub. L. 100-180, \$1231(11), substituted "section 2302(5)" for "section 2303(5)".

Subsec. (e)(4). Pub. L. 100–180, §802(a)(4)(A), (e), inserted "(or a covered product improvement program for a covered system)" after "covered system", struck out "and survivability" after "for vulnerability", and substituted "susceptibility to attack" for "operational requirements".

Subsec. (e)(5). Pub. L. 100–180, §802(a)(4)(B), inserted "(or a covered product improvement program for such a program)" after "missile program".

Subsec. (e)(8). Pub. L. 100-180, §802(a)(4)(C), added par. (8).

Effective Date of 2021 Amendment

Amendment by 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.

EFFECTIVE DATE OF 1988 AMENDMENT

Pub. L. 100-456, div. A, title XII, 123(l)(5), Sept. 29, 1988, 102 Stat. 2058, provided that: "The amendments made by this subsection [amending this section and sections 2435 and 8855 of this title and section 301c of Title 37, Pay and Allowances of the Uniformed Services] shall apply as if included in the enactment of Public Law 100-180."

Effective Date

Pub. L. 99-500, \$101(c) [title X, \$910(b)], Oct. 18, 1986, 100 Stat. 1783-82, 1783-145, Pub. L. 99-591, \$101(c) [title X, \$910(b)], Oct. 30, 1986, 100 Stat. 3341-82, 3341-145, and Pub. L. 99-661, div. A, title IX, formerly title IV, \$910(b), Nov. 14, 1986, 100 Stat. 3924, renumbered title IX, Pub. L. 100-26, \$3(5), Apr. 21, 1987, 101 Stat. 273, provided that: "Section 2366 of title 10, United States Code (as added by subsection (a)), shall apply with respect to any decision to proceed with a program beyond low-rate initial production that is made—

''(1) after May 31, 1987, in the case of a decision referred to in subsection (a)(1) or (a)(2) of such section; or

"(2) after the date of the enactment of this Act [Oct. 18, 1986], in the case of a decision referred to in subsection (a)(3) of such section."

§2366a. Major defense acquisition programs: determination required before Milestone A approval

(a) RESPONSIBILITIES.—Before granting Milestone A approval for a major defense acquisition program or a major subprogram, the milestone decision authority for the program or subprogram shall ensure that—

(1) information about the program or subprogram is sufficient to warrant entry of the program or subprogram into the risk reduction phase;

(2) the Secretary of the military department concerned and the Chief of the armed force concerned concur in the cost, schedule, technical feasibility, and performance trade-offs that have been made with regard to the program; and

(3) there are sound plans for progression of the program or subprogram to the development phase.

(b) WRITTEN DETERMINATION REQUIRED.—A major defense acquisition program or subprogram may not receive Milestone A approval or otherwise be initiated prior to Milestone B approval until the milestone decision authority determines in writing, after consultation with the Joint Requirements Oversight Council on matters related to program requirements and military needs—

(1) that the program fulfills an approved initial capabilities document;

(2) that the program has been developed in light of appropriate market research:

(3) if the program duplicates a capability already provided by an existing system, the duplication provided by such program is necessary and appropriate;

(4) that, with respect to any identified areas of risk, including risks determined by the identification of critical technologies required under section 2448b(a)(1) of this title or any other risk assessment, there is a plan to reduce the risk:

(5) that planning for sustainment has been addressed and that a determination of applicability of core logistics capabilities requirements has been made;

(6) that an analysis of alternatives has been performed consistent with study guidance developed by the Director of Cost Assessment and Program Evaluation;

(7) that a cost estimate for the program has been submitted, with the concurrence of the Director of Cost Assessment and Program Evaluation, and that the level of resources required to develop, procure, and sustain the program is sufficient for successful program execution:

(8) that, with respect to a program initiated after January 1, 2019, technology shall be developed in the program (after Milestone A approval) only if the milestone decision authority determines with a high degree of confidence that such development will not delay the fielding target of the program, or, if the milestone decision authority does not make such determination for a major system component being developed under the program, the milestone decision authority ensures that the technology related to the major system component shall be sufficiently matured and demonstrated in a relevant environment (after Milestone A approval) separate from the program using the prototyping authorities in subchapter II of chapter 144B of this title or other authorities, as appropriate, and have an effective plan for adoption or insertion by the relevant program; and

(9) that the program or subprogram meets any other considerations the milestone decision authority considers relevant. (c) Submissions to Congress on Milestone A.—

(1) BRIEF SUMMARY REPORT.—Not later than 15 days after granting Milestone A approval for a major defense acquisition program, the milestone decision authority for the program shall provide to the congressional defense committees and, in the case of intelligence or intelligence-related activities, the congressional intelligence committees a brief summary report that contains the following elements:

(A) The program cost and fielding targets established under section 2448a(a) of this title.

(B) The estimated cost and schedule for the program established by the military department concerned, including—

(i) the dollar values estimated for the program acquisition unit cost and total life-cycle cost; and

(ii) the planned dates for each program milestone and initial operational capability.

(C) The independent estimated cost for the program established pursuant to section 2334(a)(6) of this title, and any independent estimated schedule for the program, including—

(i) as assessment of the major contributors to the program acquisition unit cost and total life-cycle cost; and

(ii) the planned dates for each program milestone and initial operational capability.

(D) A summary of the technical or manufacturing risks associated with the program, as determined by the military department concerned, including identification of any critical technologies or manufacturing processes that need to be matured.

(E) A summary of the independent technical risk assessment conducted or approved under section 2448b of this title, including identification of any critical technologies or manufacturing processes that need to be matured.

(F) A summary of any sufficiency review conducted by the Director of Cost Assessment and Program Evaluation of the analysis of alternatives performed for the program (as referred to in subsection (b)(6)).

(G) Any other information the milestone decision authority considers relevant.

(2) ADDITIONAL INFORMATION.—(A) At the request of any of the congressional defense committees or, in the case of intelligence or intelligence-related activities, the congressional intelligence committees, the milestone decision authority shall submit to the committee an explanation of the basis for a determination made under subsection (b) with respect to a major defense acquisition program, together with a copy of the written determination, or further information or underlying documentation for the information in a brief summary report submitted under paragraph (1), including the independent cost and schedule estimates and the independent technical risk assessments referred to in that paragraph.

(B) The explanation or information shall be submitted in unclassified form, but may include a classified annex.

(d) DEFINITIONS.—In this section:

(1) The term "major defense acquisition program" has the meaning provided in section 2430 of this title.

(2) The term "initial capabilities document" means any capabilities requirement document approved by the Joint Requirements Oversight Council that establishes the need for a materiel approach to resolve a capability gap.

(3) The term "Milestone A approval" means a decision to enter into technology maturation and risk reduction pursuant to guidance prescribed by the Secretary of Defense for the management of Department of Defense acquisition programs.

(4) The term "Milestone B approval" has the meaning provided that term in section 2366(e)(7) of this title.

(5) The term "core logistics capabilities" means the core logistics capabilities identified under section 2464(a) of this title.

(6) the term "major subprogram" means a major subprogram of a major defense acquisition program designated under section 2430a(a)(1) of this title.

(7) The term "milestone decision authority", with respect to a major defense acquisition program or a major subprogram, means the official within the Department of Defense designated with the overall responsibility and authority for acquisition decisions for the program or subprogram, including authority to approve entry of the program or subprogram into the next phase of the acquisition process.

(8) The term "fielding target" has the meaning given that term in section 2448a(a) of this title.

(9) The term "major system component" has the meaning given that term in section 2446a(b)(3) of this title.

(10) The term "congressional intelligence committees" has the meaning given that term in section 437(c) of this title.

(Added Pub. L. 110-181, div. A, title IX, §943(a)(1), Jan. 28, 2008, 122 Stat. 288, §2366b; renumbered §2366a and amended Pub. L. 110-417, [div. A], title VIII, §813(b), (e)(1), Oct. 14, 2008, 122 Stat. 4527; Pub. L. 111–23, title I, 101(d)(3), title II, §§201(e), 204(a), (b), May 22, 2009, 123 Stat. 1710, 1720, 1723; Pub. L. 111-383, div. A, title VIII, §814(b), title X, §1075(b)(33), Jan. 7, 2011, 124 Stat. 4266, 4370; Pub. L. 112-81, div. A, title VIII, §801(a), (e)(1), Dec. 31, 2011, 125 Stat. 1482, 1483; Pub. L. 112-239, div. A, title III, §322(e)(1), title X, §1076(a)(10), Jan. 2, 2013, 126 Stat. 1695, 1948; Pub. L. 114-92, div. A, title VIII, §823(a), Nov. 25, 2015, 129 Stat. 902; Pub. L. 114-328, div. A, title VIII, \$\$806(b), 807(d), 808(a), Dec. 23, 2016, 130 Stat. 2259, 2262; Pub. L. 115-232, div. A, title VIII, §831(b)(2), Aug. 13, 2018, 132 Stat. 1857; Pub. L. 116-92, div. A, title XVII, §1731(a)(44), Dec. 20, 2019, 133 Stat. 1814.)

TRANSFER OF SECTION

Pub. L. 116–283, div. A, title XVIII, §§ 1801(d), 1847(d)(1)(A), Jan. 1, 2021, 134 Stat. 4151, 4255, provided that, effective Jan. 1, 2022, with additional provisions for delayed implementation and applicability of existing law, this section is transferred to chapter 322 of this title, as added by section 1847(a) of Pub. L. 116-283, inserted after the table of sections at the beginning of subchapter III, and redesignated as section 4251 of this title. See Effective Date of 2021 Amendment note below.

PRIOR PROVISIONS

A prior section 2366a was renumbered section 2366b of this title.

Amendments

2019—Subsec. (c)(1)(F). Pub. L. 116–92 substituted "subsection (b)(6)" for "section 2366a(b)(6) of this title'

2018-Subsec. (c)(1)(A). Pub. L. 115-232 struck out "by the Secretary of Defense'' after "established"

2016-Subsec. (b)(4). Pub. L. 114-328, §807(d), inserted ", including risks determined by the identification of critical technologies required under section 2448b(a)(1) of this title or any other risk assessment" after "areas of risk"

Subsec. (b)(8), (9). Pub. L. 114-328, §806(b), added par. (8) and redesignated former par. (8) as (9).
Subsec. (c). Pub. L. 114-328, \$808(a)(1), amended sub-

sec. (c) generally. Prior to amendment, text of subsec. (c) read as follows: "At the request of any of the congressional defense committees, the Secretary of Defense shall submit to the committee an explanation of the basis for a determination made under subsection (b) with respect to a major defense acquisition program, together with a copy of the written determination. The explanation shall be submitted in unclassified form, but may include a classified annex.'

Subsec. (d)(8) to (10). Pub. L. 114-328, §808(a)(2), added pars. (8) to (10).

2015-Pub. L. 114-92 amended section generally. Prior to amendment, section related to certification required before Milestone A approval of major defense acquisition programs.

2013—Pub. L. 112–239, §1076(a)(10)(C), made technical amendment to directory language of Pub. L. 112-81, §801(e)(1)(A). See 2011 Amendment note below.

Subsec. (a)(4). Pub. L. 112-239, §322(e)(1), substituted "core logistics capabilities" for "core depot-level maintenance and repair capabilities"

Subsec. (a)(5), (6). Pub. L. 112–239, 1076(a)(10)(A),made technical amendment to directory language of Pub. L. 112-81, §801(a)(1)(B). See 2011 Amendment notes below.

Subsec. (c)(7). Pub. L. 112-239, §1076(a)(10)(B), made technical amendment to directory language of Pub. L.

Pub. L. 112-81, §801(a)(2). See 2011 Amendment note below. Pub. L. 112-239, §322(e)(1), substituted "core logistics capabilities" for "core depot-level maintenance and re-pair capabilities" in two places.

2011—Pub. L. 112-81, §801(e)(1)(A), as amended by Pub. L. 112-239, §1076(a)(10)(C), struck out "or Key Decision Point A" after "Milestone A" in section catchline. Subsec. (a). Pub. L. 112-81, §801(e)(1)(B), struck out

", or Key Decision Point A approval in the case of a space program," after "Milestone A approval" and ", or Key Decision Point B approval in the case of a space program," after "Milestone B approval" in intro-

ductory provisions. Subsec. (a)(2). Pub. L. 112–81, §801(a)(1)(A), sub-stituted "function" for "core competency". Subsec. (a)(4). Pub. L. 112–81, §801(a)(1)(C), added par.

(4). Former par. (4) redesignated (5).

Subsec. (a)(5). Pub. L. 112-81, §801(a)(1)(B), as amended by Pub. L. 112–239, §1076(a)(10)(A), redesignated par. (4) as (5). Former par. (5) redesignated (6).

Subsec. (a)(6). Pub. L. 112-81, §801(a)(1)(D), sub-stituted "develop, procure, and sustain" for "develop and procure"

Pub. L. 112-81, §801(a)(1)(B), as amended by Pub. L. 112–239, 1076(a)(10)(A), redesignated par. (5) as (6).

Subsec. (b)(1). Pub. L. 112-81, §801(e)(1)(C)(i), struck out "(or Key Decision Point A approval in the case of a space program)" after "Milestone A approval"

Pub. L. 111-383, §814(b)(1)(A), substituted "a major defense acquisition program certified by the Milestone Decision Authority under subsection (a) or a designated major subprogram of such program, if the projected cost of the program or subprogram" for "a major defense acquisition program certified by the Milestone Decision Authority under subsection (a), if the projected cost of the program"

Subsec. (b)(2). Pub. L. 111-383, §814(b)(1)(B), inserted "or designated major subprogram" after "major defense acquisition program"

Subsec. (b)(2)(C)(ii). Pub. L. 112–81, §801(e)(1)(C)(ii), struck out ", or Key Decision Point A approval in the case of a space program," after "Milestone A approval".

Subsec. (c). Pub. L. 111-383, §1075(b)(33)(A), inserted a space after "(c)

Subsec. (c)(2) to (5). Pub. L. 111-383, §814(b)(2), added par. (2) and redesignated former pars. (2) to (4) as (3) to (5), respectively. Former par. (5) redesignated (6). Pub. L. 111-383, §1075(b)(33)(B), which directed substi-

tution of "section 118b(c)(3) of this title" for "section 125a(a) of this title" in par. (4), was executed by making the substitution in par. (5) to reflect the probable in-tent of Congress and the amendment by Pub. L. 111–383, §814(b)(2)(A). See above.

Subsec. (c)(6). Pub. L. 111-383, §814(b)(2)(A), redesignated par. (5) as (6).

Subsec. (c)(7). Pub. L. 112-81, §801(a)(2), as amended by Pub. L. 112-239, §1076(a)(10)(B), added par. (7).

2009—Subsec. (a). Pub. L. 111-23, §204(a), substituted "may not receive Milestone A approval, or Key Decision Point A approval in the case of a space program, or otherwise be initiated prior to Milestone B approval, or Key Decision Point B approval in the case of a space program," for "may not receive Milestone A approval, or Key Decision Point A approval in the case of a space program," in introductory provisions.

Subsec. (a)(3). Pub. L. 111-23, §201(e)(1), struck out 'and'' at end.

Subsec. (a)(4). Pub. L. 111-23, §201(e)(3), added par. (4).

Former par. (4) redesignated (5). Pub. L. 111-23, §101(d)(3), inserted ", with the concur-rence of the Director of Cost Assessment and Program Evaluation," after "has been submitted"

Subsec. (a)(5). Pub. L. 111-23, §201(e)(2), redesignated par. (4) as (5).

Subsec. (b). Pub. L. 111-23, §204(b), designated existing provisions as par. (1), substituted "by at least 25 percent, or the program manager determines that the period of time required for the delivery of an initial operational capability is likely to exceed the schedule objective established pursuant to section 181(b)(5) of this title by more than 25 percent," for "by at least 25 percent,", and added par. (2).

2008-Pub. L. 110-417, §813(b), renumbered section 2366b of this title as this section.

Subsec. (a)(1), (2). Pub. L. 110-417, §813(e)(1)(A), sub-

Subsec. (a)(1), (2). Pub. L. 110-417, §813(e)(1)(A), sub-stituted "program" for "system". Subsec. (a)(3). Pub. L. 110-417, §813(e)(1)(B), sub-stituted "if the program" for "if the system" and "such program" for "such system". Subsec. (a)(4). Pub. L. 110-417, §813(e)(1)(A), sub-stituted "program" for "system" in two places. Subsec. (b). Pub. L. 110-417, §813(e)(1)(C), substituted "major defense acquisition program" for "major sys-tem", "cost of the program" for "cost of the system", "estimate for the program" for "estimate for the sys-tem", "the program concerned" for "the system con-cerned", and "procure the program" for "procure the cerned", and "procure the program" for "procure the system"

Subsec. (c)(1). Pub. L. 110-417, §813(e)(1)(D), sub-stituted "'major defense acquisition program'" for "'major system'" and "2430" for "2302(5)".

EFFECTIVE DATE OF 2021 AMENDMENT

Amendment by 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.

EFFECTIVE DATE OF 2013 AMENDMENT

Pub. L. 112-239, div. A, title III, §322(f), Jan. 2, 2013, 126 Stat. 1695, provided that: "This section [enacting sections 2460 and 2464 of this title, amending this section and sections 2366b, 2460, and 2464 of this title, repealing sections 2460 and 2464 of this title, and amending provisions set out as a note under this section] and the amendments made by this section shall take effect on December 31, 2011, the date of the enactment of the National Defense Authorization Act for Fiscal Year 2012 [Pub. L. 112-81], immediately after the enactment of that Act."

Pub. L. 112-239, div. A, title X, 1076(a), Jan. 2, 2013, 126 Stat. 1947, provided that the amendment made by section 1076(a)(10) is effective Dec. 31, 2011, and as if included in Pub. L. 112-81 as enacted.

EFFECTIVE DATE

Pub. L. 110–181, div. A, title IX, §943(c), Jan. 28, 2008, 122 Stat. 289, as amended by Pub. L. 110–417, [div. A], title VIII, §813(e)(2)(B), Oct. 14, 2008, 122 Stat. 4528, provided that: "Section 2366b [now 2366a] of title 10, United States Code, as added by subsection (a), shall apply to major defense acquisition programs on and after March 1, 2008. In the case of the certification required by [former] paragraph (2) of subsection (a) of such section, during the period prior to the completion of the first quadrennial roles and missions review required by [former] section 118b of title 10, United States Code, the certification required by that paragraph shall be that the system is being executed by an entity with a relevant core competency as identified by the Secretary of Defense."

ANALYSIS OF ALTERNATIVES PURSUANT TO MATERIEL DEVELOPMENT DECISIONS

Pub. L. 116-92, div. A, title VIII, §832, Dec. 20, 2019, 133 Stat. 1493, provided that:

"(a) TIMELINE.—Not later than 180 days after the date of the enactment of this Act [Dec. 20, 2019], the Secretary of Defense shall update existing guidance for analyses of alternatives conducted pursuant to a materiel development decision for a major defense acquisition program to incorporate the following:

"(1) Study completion within nine months.

"(2) Study guidance issued by the Director, Cost Assessment and Program Evaluation of a scope designed to provide for reasonable completion of the study within the nine-month period.

"(3) Procedures for waiver of the timeline requirements of this subsection on a case-by-case basis if— "(A) the subject of the analysis is of extreme

technical complexity; "(B) collection of additional intelligence is re-

quired to inform the analysis;

 $``({\bf C})$ insufficient technical expertise is available to complete the analysis; or

"(D) the Secretary determines that there [are] other sufficient reasons for delay of the analysis.

"(b) REPORTING.—If an analysis of alternatives cannot be completed within the allotted time, or a waiver is used, the Secretary shall report to the congressional defense committees [Committees on Armed Services and Appropriations of the Senate and the House of Representatives] the following information:

"(1) For a waiver, the basis for use of the waivers, including the reasons why the study cannot be completed within the allotted time.

 $^{\prime\prime}(2)$ For a study estimated to take more than nine months—

"(A) an estimate of when the analysis will be completed;

 $``({\rm B})$ an estimate of any additional costs to complete the analysis; and

"(C) other relevant information pertaining to the analysis and its completion.

"(c) Report on Analyses of Alternatives.-

"(1) ASSESSMENT.— "(A) IN GENERAL.—The Under Secretary of Defense for Acquisition and Sustainment shall engage

with an independent entity, including under the Program for Acquisition Innovation Research, to assess the conduct of analyses of alternatives.

"(B) ELEMENTS.—The assessment required under subparagraph (A) shall—

"(i) assess the time required to complete analyses of alternatives within the Department of Defense completed over the last five fiscal years, as compared with best practices;

"(ii) provide recommendations and policy options to improve analyses of alternatives; and

"(iii) discuss any other matters as identified by the Under Secretary.

"(C) ACCESS TO DATA.—The Under Secretary shall ensure that the independent entity is provided access to the data, information, and resources necessary to complete the required analyses and assessment.

"(2) REPORT.—Not later than one year after the date of the enactment of this Act, the Under Secretary shall submit to the congressional defense committees a report including the assessment required under paragraph (1) and a review and assessment by the Under Secretary of the findings made in the assessment."

MILESTONE A DECISIONS

Pub. L. 114-92, div. A, title VIII, §802(d)(2), Nov. 25, 2015, 129 Stat. 880, provided that: "The Chief of the Armed Force concerned shall advise the milestone decision authority for a major defense acquisition program of the Chief's views on cost, schedule, technical feasibility, and performance trade-offs that have been made with regard to the program, as provided in section 2366a(a)(2) of title 10, United States Code, as amended by section 823 of this Act, prior to a Milestone A decision on the program."

REQUIREMENTS PRIOR TO LOW-RATE INITIAL PRODUCTION

Pub. L. 112-81, div. A, title VIII, §801(c), Dec. 31, 2011, 125 Stat. 1483, as amended by Pub. L. 112-239, div. A, title III, §322(e)(3), Jan. 2, 2013, 126 Stat. 1695, provided that: "Prior to entering into a contract for low-rate initial production of a major defense acquisition program, the Secretary of Defense shall ensure that the detailed requirements for core logistics capabilities and the associated sustaining workloads required to support such requirements, have been defined."

GUIDANCE

Pub. L. 112-81, div. A, title VIII, §801(d), Dec. 31, 2011, 125 Stat. 1483, provided that: "Not later than 120 days after the date of the enactment of this Act [Dec. 31, 2011], the Secretary of Defense shall issue guidance implementing the amendments made by subsections (a) and (b) [amending this section and section 2366b of this title], and subsection (c) [set out above], in a manner that is consistent across the Department of Defense."

APPLICATION TO ONGOING PROGRAMS

Pub. L. 111-23, title II, §204(c), May 22, 2009, 123 Stat. 1723, as amended by Pub. L. 111-383, div. A, title VIII, §813(c), Jan. 7, 2011, 124 Stat. 4265, which related to application of the requirements of this section to certain major defense acquisition programs initiated before May 22, 2009, was repealed by Pub. L. 112-81, div. A, title VIII, §819(a), Dec. 31, 2011, 125 Stat. 1501.

REVIEW OF DEPARTMENT OF DEFENSE ACQUISITION DIRECTIVES

Pub. L. 110-181, div. A, title IX, §943(b), Jan. 28, 2008, 122 Stat. 289, as amended by Pub. L. 110-417, [div. A], title VIII, §813(e)(2)(A), Oct. 14, 2008, 122 Stat. 4528, which provided for review of Department of Defense Di-

rective 5000.1 and associated guidance, was repealed by Pub. L. 115-232, div. A, title VIII, 812(b)(32), Aug. 13, 2018, 132 Stat. 1849.

§2366b. Major defense acquisition programs: certification required before Milestone B approval

(a) CERTIFICATIONS AND DETERMINATION RE-QUIRED.—A major defense acquisition program may not receive Milestone B approval until the milestone decision authority—

(1) has received a preliminary design review and conducted a formal post-preliminary design review assessment, and certifies on the basis of such assessment that the program demonstrates a high likelihood of accomplishing its intended mission;

(2) further certifies that the technology in the program has been demonstrated in a relevant environment, as determined by the milestone decision authority on the basis of an independent review and technical risk assessment conducted under section 2448b of this title;

(3) determines in writing that—

(A) the program is affordable when considering the ability of the Department of Defense to accomplish the program's mission using alternative systems;

(B) appropriate trade-offs among cost, schedule, technical feasibility, and performance objectives have been made to ensure that the program is affordable when considering the per unit cost and the total lifecycle cost;

(C) reasonable cost and schedule estimates have been developed to execute, with the concurrence of the Director of Cost Assessment and Program Evaluation, the product development and production plan under the program;

(D) the estimated procurement unit cost for the program and the estimated date for initial operational capability for the baseline description for the program (established under section 2435) do not exceed the program cost and fielding targets established under section 2448a(a) of this title, or, if such estimated cost is higher than the program cost targets or if such estimated date is later than the fielding target, the program cost targets have been increased or the fielding target has been delayed by the milestone decision authority;

(E) funding is expected to be available to execute the product development and production plan for the program, consistent with the estimates described in subparagraph (C) for the program;

(F) appropriate market research has been conducted prior to technology development to reduce duplication of existing technology and products;

(G) the Department of Defense has completed an analysis of alternatives with respect to the program;

(H) the Joint Requirements Oversight Council has accomplished its duties with respect to the program pursuant to section 181(b) of this title, including an analysis of the operational requirements for the program; (I) life-cycle sustainment planning, including corrosion prevention and mitigation planning, has identified and evaluated relevant sustainment costs throughout development, production, operation, sustainment, and disposal of the program, and any alternatives, and that such costs are reasonable and have been accurately estimated;

(J) an estimate has been made of the requirements for core logistics capabilities and the associated sustaining workloads required to support such requirements;

(K) there is a plan to mitigate and account for any costs in connection with any anticipated de-certification of cryptographic systems and components during the production and procurement of the major defense acquisition program to be acquired;

(L) the program complies with all relevant policies, regulations, and directives of the Department of Defense;

 (\tilde{M}) the Secretary of the military department concerned and the Chief of the armed force concerned concur in the trade-offs made in accordance with subparagraph (B);

(N) the requirements of section 2446b(e) of this title are met;

(O) appropriate actions have been taken to negotiate and enter into a contract or contract options for the technical data required to support the program; and

(P) has approved the life cycle sustainment plan required under section 2337(b) of this title.¹

(4) in the case of a space system, performs a cost benefit analysis for any new or follow-on satellite system using a dedicated ground control system instead of a shared ground control system, except that no cost benefit analysis is required to be performed under this paragraph for any Milestone B approval of a space system after December 31, 2019; and

(5) in the case of a naval vessel program, certifies compliance with the requirements of section 8669b of this title.

(b) CHANGES TO CERTIFICATIONS OR DETERMINA-TION.—(1) The program manager for a major defense acquisition program that has received certifications or a determination under subsection (a) shall immediately notify the milestone decision authority of any changes to the program or a designated major subprogram of such program that—

(A) alter the substantive basis for the certifications or determination of the milestone decision authority relating to any component of such certifications or determination specified in paragraph (1), (2), or (3) of subsection (a); or

(B) otherwise cause the program or subprogram to deviate significantly from the material provided to the milestone decision authority in support of such certifications or determination.

(2) Upon receipt of information under paragraph (1), the milestone decision authority may

 $^{^1\}mathrm{So}$ in original. Subpar. (P) does not follow the pattern of other subpars. in this par. and the period at end probably should be a semicolon.