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## Part 2

### Program Definition

- References:
- (a) DOD Directive 5000.1, "Defense Acquisition," 15 Mar 96 (NOTAL)
  - (b) DoD Regulation 5000.2-R, "Mandatory Procedures for Major Defense Acquisition Programs (MDAPs) and Major Automated Information System (MAIS) Acquisition Programs," 15 Mar 96 (NOTAL)
  - (c) OPNAVINST 3811.1C, "Threat Support to Weapon Systems Planning and Acquisition," 16 May 1995 (NOTAL)
  - (d) DoD Directive 8000.1, "Defense Information Management (IM) Program," 27 Oct 92 (NOTAL)
  - (e) DoD Instruction 5100.3, "Support of the Headquarters of Unified, Specified, and Subordinate Joint Commands," 1 Nov 88 (NOTAL)
  - (f) Chairman of the Joint Chiefs of Staff Instruction 6212.01A, "Compatibility, Interoperability, and Integration of Command, Control, Communications, Computers, and Intelligence Systems," 30 Jun 95 (NOTAL)
  - (g) MCO 3900.4D, "Marine Corps Program Initiation and Operational Requirement Documents," 31 Jan 91 (NOTAL)
  - (h) SECNAVINST 5420.188D, "Program Decision Process," 31 Oct 95 (NOTAL)

#### **2.1 Purpose**

Use of the mandatory procedures in this part serve to ensure that all acquisition category (ACAT) programs become well-defined and carefully structured to represent a judicious balance of cost, schedule, performance, available technology, and affordability constraints prior to production or deployment approval. See references (a) and (b) for further implementation requirements for all Department of the Navy (DON) programs.

#### **2.2 Intelligence Support\***

Life cycle threat assessment and intelligence support for ACAT I, II, III, and IV programs shall be provided in accordance with reference (c).

\*Normally not applicable to information technology (IT) programs.

#### **2.3 Requirements Evolution**

In their role as user representative, Chief of Naval Operations (CNO)/Commandant of the Marine Corps (CMC) shall identify, define, validate, and prioritize mission requirements,

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program resources through the Planning, Programming and Budgeting System (PPBS), and coordinate the test and evaluation (T&E) process. This shall require continuous interaction with the Assistant Secretary of the Navy (Research, Development and Acquisition) (ASN(RD&A)) throughout the acquisition process in order to evaluate and appropriately respond to changes in requirements or the PPBS.

If the potential solution could result in a new IT program, the appropriate IT functional area points of contact (POCs) (provided in enclosure (7), appendix II, annex B, section 7) shall review the documented need, coordinate with principal staff assistants (PSAs) for joint potential, and confirm that the requirements defined in reference (d) have been met.

### **2.3.1 Evaluation of Requirements Based on Commercial Market Potential**

See reference (b), paragraph 2.3.1, for implementation requirements for all DON programs.

### **2.3.2 Evaluation of Requirements Based on International Market Potential**

In developing system requirements, consideration shall be given as to how desired performance requirements could be reasonably modified, if appropriate, to permit international cooperation, either through information exchange, research and development international agreements, foreign comparative testing, or industrial cooperation.

### **2.3.3 CNO Responsibilities**

#### **2.3.3.1 Office of the Chief of Naval Operations (OPNAV) Program and Resource Sponsor Responsibilities**

For Navy programs, the OPNAV program sponsor, in coordination with the OPNAV resource sponsor, where separately assigned, shall:

1. Act as the user representative,
2. Prepare the necessary requirements documentation,
3. Provide explicit direction with regard to mission and operational requirements generation and changes,
4. Program the funds necessary for proper execution, and
5. Define the thresholds and parameters for operational testing.

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The OPNAV program sponsor shall provide the key interface between the requirements generation system, the PPBS, and the acquisition management system. A requirements officer (RO) shall be assigned for each platform or system to provide staff expertise to the CNO in fulfilling his requirements, test and evaluation, and resources responsibilities. ROs shall also interface with the acquisition management system through membership on the program acquisition coordination teams (ACTs)/integrated product teams (IPTs).

At the appropriate milestone, CNO (N4) and the OPNAV program sponsor, or the user's representative if other than the OPNAV program sponsor, shall provide a fleet introduction/deployment recommendation to the milestone decision authority (MDA).

CNO (N1) shall be the approval authority for manpower and personnel requirements determination.

#### **2.3.3.2 CNO, CNO (N8/N81) Weapon System Responsibilities**

CNO (N81) shall coordinate the requirements generation process for achieving mission need statement (MNS) and operational requirements document (ORD) validation and approval. The detailed MNS and ORD documentation and processing procedures are provided in enclosure (7), appendix II, annex A, sections 1 and 3, respectively.

Prior to Joint Requirements Oversight Council (JROC) validation and approval, CNO (N81) shall provide potential ACAT I program MNSs to CNO or CMC, as appropriate, for endorsement. CNO or CMC shall be the ACAT I program ORD validation and approval authority for DON whenever the JROC delegates this authority.

The Deputy CNO (Resources, Warfare Requirements and Assessments) (CNO (N8)) shall review, validate, approve, and prioritize MNSs and ORDs for Navy weapon system ACAT II, III, and IV programs. CNO (N8) shall convene, when appropriate, a Resources and Requirements Review Board (R3B) to perform a review prior to endorsement or validation and approval.

Key performance parameters shall be identified in the ORD and shall subsequently be included in the performance section of the acquisition program baseline (APB). These key performance parameters shall be validated by the JROC (ACAT ID) or CNO (N8) (ACAT IC, II, III, and IV).

#### **2.3.3.3 OPNAV MNS and ORD Development and Processing Procedures**

##### **2.3.3.3.1 Weapon System MNS and ORD Development and Processing Procedures**

A MNS shall be prepared for Milestone 0, Concept Studies

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Approval, at which the MDA's approval will be sought to proceed with Concept Exploration. In accordance with reference (e), the Commanders in Chief (CINCs) and the Commander, U.S. Element, North American Air Defense Command (NORAD), who do not have an acquisition executive, shall identify their mission needs to the responsible Service component commander, who shall use the Service's requirements system to validate and satisfy their need. CINC/Fleet Commanders in Chief (FLTCINCs) shall forward proposed Navy MNSs to CNO (N81) for staffing and coordination via CNO (N83).

Operational requirements shall be evolutionary in nature and become more refined as a result of analysis of alternatives and test program updates as the program proceeds. The MNS and its associated analysis of alternatives shall provide the general framework for the derivation of the ORD and the APB key performance parameters at the appropriate approval milestone. The OPNAV program sponsor shall apply the results of the analysis of alternatives to identify performance parameters and potential system(s) which would satisfy the need. Cost as an independent variable (CAIV) concepts shall be considered in tradeoff analyses when conducting analysis of alternatives. CAIV concepts shall be carried forwarded to the APB after finalization of the ORD.

The ORD shall delineate performance parameters and critical systems characteristics, in terms of thresholds and objectives. All Milestone 0/I MNSs and ORDs shall include clearly defined joint interoperability requirements or otherwise explicitly state that joint interoperability is not a requirement. The ORD shall be more detailed than the MNS and shall state specific joint interoperability requirements. Milestone II ORDs shall be updated and shall include appropriate statements on joint interoperability requirements. For all Milestone III ORDs, where joint interoperability is not addressed, and the program is scheduled to undergo operational testing, the sponsor shall prepare a joint interoperability requirements memorandum that defines these requirements or explicitly states that no requirement exists.

All MNSs and ORDs with command, control, communications, computers and intelligence (C4I) issues shall be staffed for review of C4I impact, interoperability, and integration in accordance with reference (f).

#### **2.3.3.3.2 IT MNS and ORD Development and Processing Procedures**

See enclosure (7), appendix II, annex B, sections 1 and 3, for MNS and ORD development and processing procedures for IT requirements. MNSs and ORDs for functional IT programs shall also be staffed for review of C4I impact, interoperability, and integration.

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#### **2.3.3.4 JROC Documentation Processing Procedures**

CNO endorsement of a Navy ACAT I MNS, CNO validation of an ACAT ID ORD, program sponsor validation endorsement of the key performance parameters section of the APB (extracted from the ORD), and approval of the JROC briefing materials shall occur in advance of the JROC meeting. Following JROC validation, the program sponsor shall endorse the ACAT ID APB. Detailed OPNAV APB processing procedures and detailed JROC/CNO/CMC interface procedures for weapon system programs are provided in enclosure (7), appendix II, annex A, sections 4 and 5, respectively.

#### **2.3.3.5 Marine Corps MNS and ORD Development and Processing Procedures**

For MNS and ORD development and processing with Marine Corps fiscal sponsorship, see reference (g). The following specific procedures shall apply to Marine Corps programs which have Navy fiscal sponsorship (e.g., aviation programs). MNS/ORDs for these programs shall be developed in accordance with reference (g). Subsequently, the MNS/ORD shall be submitted by the Commanding General, Marine Corps Combat Development Command (CG, MCCDC) to the applicable OPNAV program sponsor, via CNO (N810), for concurrence, prioritization, staffing, and endorsement. MCCDC shall coordinate validation and approval as follows:

1. ACAT I: shall be endorsed by CNO (N8); shall be reviewed by the Assistant CMC (ACMC), VCNO, CNO; shall be approved/validated by the CMC or JROC, as appropriate.
2. ACAT II, III, and IV: shall be endorsed by CNO (N8) and shall be forwarded to CG, MCCDC for final approval and validation processing. CG, MCCDC shall review, approve, and prioritize MNSs and ORDs for Marine Corps ACAT II, III, and IV programs. The ACMC shall validate Marine Corps MNSs and ORDs for ACAT II, III, and IV programs.

#### **2.4 Analysis of Alternatives**

An analysis of alternatives, tailored to the scope, phase, ACAT-level, and needs of each program, shall be conducted prior to and considered at appropriate milestone decisions, for all DON programs. The analysis of alternatives aids in resolving MDA issues, and provides the basis for establishing program thresholds, cost and performance trade-offs, and a formulation of the analytical underpinnings for program decisions. See reference (b), paragraph 2.4, for further implementation requirements for ACAT I and IA programs.

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### **2.4.1 Preparation Responsibilities**

#### **2.4.1.1 Weapon System Analysis of Alternatives**

1. The cognizant PEO/SYSCOM/DRPM, or cognizant Deputy ASN(RD&A), and CNO/CMC, but not the program manager (PM), shall have overall responsibility for the analysis of alternatives. The program sponsor shall propose a scope of analysis in coordination with an analysis of alternatives IPT, under the ACT where established (see reference (h)). At a minimum, the scope of analysis shall identify the independent activity responsible for conducting ACAT I and II program analyses, a set of alternatives to be addressed, a proposed completion date for the analysis, any operational constraints associated with the need, and specific issues to be addressed. Designation of independent activities to conduct analysis of alternatives for ACAT III and IV programs is encouraged, but not required. The scope of analysis shall be approved at each milestone, as appropriate by: ASN(RD&A) or designee and CNO (N8)/CMC (Deputy Chief of Staff (Programs and Resources) (DC/S(P&R))) for ACAT ID programs; MDA or designee and CNO (N8)/CMC(DC/S(P&R)) for ACAT IC, II, and III programs; and MDA and CG, MCCDC/CNO program sponsor (flag level) or designee for ACAT IV programs. See enclosure (7), appendix II, annex A, section 2, for further implementation requirements.
2. A director, responsible for the conduct of the analysis, shall be assigned for each analysis of alternatives. The director must have a strong background in analyses as well as technical and operational credibility.
3. An analysis of alternatives IPT consisting of appropriate members of the core ACT organizations, where established, and any other organization deemed appropriate by the MDA, shall oversee the analysis of alternatives. The analysis of alternatives IPT and the ACT shall be kept cognizant of the analysis development. The analysis of alternatives IPT shall be co-chaired by the cognizant PEO/SYSCOM/DRPM, or cognizant Deputy ASN(RD&A), and the program sponsor or CG, MCCDC. At a minimum, the analysis of alternatives IPT shall receive a briefing of the analysis plan and on the final results, prior to presentation to the MDA. When CNO/CMC requests, the program sponsor shall be responsible for scheduling a formal briefing of the final results. The analysis of alternatives final results shall be presented in the form of a briefing or a formal report. If a formal report is written, it shall be approved as indicated in the following table:

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ACAT ID	ACAT IC, II, and III	ACAT IV
ASN(RD&A), or designee (flag or SES), & CNO (N8) or DC/S (P&R)	MDA, or designee (flag or SES), & CNO (N8) or DC/S (P&R)	MDA , or designee, & Program Sponsor or CG, MCCDC

4. These procedures, tailored as necessary to include other service representatives and formal approval, shall be used for joint ACAT IC, II, III, and IV programs when DON has been designated Lead Service. If the analysis of alternatives is to be supplemented by other service developed analysis, DON shall ensure that the assumptions and methodologies used are consistent across the board.
5. See reference (b), paragraph 2.4.1, for further implementation requirements for ACAT I and IA programs.

#### **2.4.1.2 IT Analysis of Alternatives**

See enclosure (7), appendix II, annex B, section 2, for analysis of alternatives preparation and processing procedures for IT systems.

#### **2.4.2 Milestone Decision Reviews**

See reference (b), paragraph 2.4.2, for implementation requirements for all DON programs.

### **2.5 Affordability**

1. In addition to ACAT I and IA programs, individual program plans and strategies for new ACAT II, III, and IV programs shall be consistent with overall DoD planning and funding priorities.
2. In addition to ACAT I and IA programs, affordability and life-cycle cost shall be assessed for ACAT II, III, and IV programs at each milestone decision point. No acquisition program shall be approved to proceed beyond program initiation unless sufficient resources, including manpower, are programmed in the most recently approved Future Years Defense Program (FYDP), or will be programmed in the PPBS cycle.

#### **2.5.1 Full Funding of Acquisition Programs Reviewed by the DAB or MAISRC**

See reference (b), paragraph 2.5.1, for implementation requirements for ACAT ID and IAM programs.

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### **2.5.2 Interface with Planning, Programming and Budgeting System**

Full funding to support approved ACAT I, IA, II, III, and IV programs shall be included in all program and budget submissions. In addition to establishing and revising operational requirements, CNO/CMC shall ensure funding requirements for ACAT programs, abbreviated acquisition programs, non-acquisition programs, and rapid deployment capability programs are satisfied in the development of each PPBS phase.

FYDP or budgeted funding shall be shown at each milestone (except Milestone 0) or other program review. If the preferred alternative exceeds the FYDP or budgeted funding, then an alternative which can be executed within approved funding (and for IT programs shows an economic benefit or return on investment) shall also be presented.

If the MDA selects an alternative which exceeds FYDP or budgeted resources, then the need for additional resources shall be identified to CNO (N8)/CMC (DC/S (P&R)). CNO (N8)/CMC (DC/S (P&R)) shall forward the recommended resource action to Secretary of the Navy (SECNAV), ASN(RD&A), or MDA, as appropriate, with a copy to ASN(RD&A) (if not the MDA) and ASN(Financial Management and Comptroller) (ASN(FM&C)). SECNAV, ASN(RD&A), or the MDA, as appropriate, shall direct appropriate action.

### **2.6 Supportability**

Support planning shall show a balance between program resources and schedule so that systems are acquired, designed, and introduced which meet ORD and APB performance design criteria; and do so effectively. Support planning, and its execution, form the basis for fleet and operational forces' introduction/deployment recommendations and decisions. See reference (b), paragraph 2.6, for implementation requirements for all DON programs.

### **2.7 Advanced Concept Technology Demonstrations (ACTDs)**

See reference (b), paragraph 2.7, for implementation requirements for all DON programs.