

October 2003

ACQUISITION GUIDE 2003

This is the 19th Edition of the NAVAIR Acquisition Guide. Constructive changes/recommendations are encouraged. POCs: AIR-1.1.1A, (301) 757-6623, or AIR-1.1.1B, (301) 757-6624

The SECNAV 5000.2B instruction which is referenced in this guide, is in the process of being revised and is planned to be re-issued as SECNAVINST 5000.2C early in calendar year 2004. At such time this guide will be reviewed in its entirety for impact changes.

This guide is available for download at the web sites listed below.

AIR-1.1 Homepage
<http://www.navair.navy.mil/air10/air11/index.htm>

Available on the DoD Defense Acquisition Deskbook
<http://www.deskbook.osd.mil>

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CHAPTER I: INTRODUCTION & OBJECTIVE

A. The Guide: What It Is and Is Not -

This guide was developed for the Naval Air Systems Command (NAVAIR) in recognition of the need to:

- ◆ Provide a consolidated overview of the major internal NAVAIR acquisition processes.
- ◆ Provide a quick, ready reference identifying the major reviews, approval, and documentation requirements associated with the acquisition process.
- ◆ Provide helpful advice from our "corporate memory" to Program Managers (PMs) and their Integrated Program Teams (IPTs), and to team members who are new to the process.
- ◆ Provide a list of key acquisition experts and process managers to assist the PMs/IPTs through the acquisition process.

The following points represent what this guide is not intended to do:

- ◆ It does not supersede existing Notices, Instructions, Directives or established DoD/DoN/NAVAIR policy on the acquisition process.
- ◆ It does not describe every activity and/or document required in managing a program within NAVAIR .
- ◆ It is not a "cookbook" approach to our acquisition process. The uniqueness of each acquisition program precludes such an approach.

B. The Guide - Its Purpose

The systems acquisition and life cycle management process for the development, production, and support of weapons/systems to satisfy the needs of the Fleet is complex and lengthy. There are numerous interrelated Department of Defense and Navy directives and implementing instructions detailing each part of the process.

The purpose of this NAVAIR Acquisition Guide is to identify the key activities and critical documentation required and put these requirements in a concise, maintainable, and easy-to-use format to help our PMs/IPTs plan ahead. The need for PMs, IPT leaders, and their attendant team members, particularly members new to Naval Aviation, to know the process and sequence of events and average cycle times to complete events is essential for planning their programs and ensuring timely obligation/expenditure of funds budgeted. In addition, by seeing the entire process, our NAVAIR leadership can focus on better ways to manage that process by establishing time limits for each part of the acquisition cycle and minimizing the number of required events, and by monitoring system performance measurement against the established process standards.

NAVAIR members are encouraged to use this Guide as a ready reference, and to make constructive comments for continual improvement to AIR-1.1.1A, the NAVAIR Acquisition Guide Manager.

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C. Acquisition Training

An overview and application of many of the topics addressed in this Guide can be obtained by attending the in-house acquisition training entitled "Integrated Product Team (IPT) Leader Course." This course, sponsored by the Assistant Commander for Acquisition, AIR 1.0, is conducted quarterly and is presented by acquisition process experts within NAVAIR who have extensive experience in performing key segments of the acquisition management process.

It is a four day course delivered in in two-parts. The first part accomplished electronically at the student's own pace and prior to attending the second part. The second part is accomplished via a classroom / lecture environment and addresses and discusses the latest NAVAIR "real-world" processes and issues. The four day course focuses on team building and its importance in the acquisition process. . Some of the topics reviewed are the NAVAIR Business Model, CAO/IPT Operating Principles, IPT Leader Responsibilities and Roles, Acquisition / Program Management, Cost Concerns, Role of Counsel in the IPT Process, Contracts Planning and Management, Logistics / Life Cycle Support, Software Acquisition Improvements, and Non-Advocate Reviews.

The course also includes The Cumberland Group's *Team Skills, Team Lead, Coaching, and Partnering Workshop*.

Personnel wishing to attend the IPT Leader's Course should include it on their Individual Development Plans (IDPs) and coordinate attendance through their group-training administrators. Course dates and offerings are available in the latest issue of the Training and Development Resource Guide, published by the Human Resource Center.

POC:. AIR-1.1, 757-6623

CHAPTER II: NAVAL AVIATION ACQUISITION AND SUPPORT ORGANIZATION

BACKGROUND: To understand how our acquisition processes operate, it is important to understand our acquisition structure, how we got where we are, and where we are going. During the 1990s NAVAIR completed an extensive three-year, three-phase transition from a program/functional matrix organization with site specific characteristics, to a competency aligned organization that spans seamlessly across all sites encompassed in the Naval Air Systems Team structure. Our CAO/IPT concept of operations represents continuing evolution of many of the key management principles originally sought by the Packard Commission of the mid-1980's, the Goldwater-Nichols Reorganization Act of 1986, the Defense Management Review of 1989, and the many on-going Acquisition Reform Initiatives. Clear understanding of individual responsibilities, establishment of authority commensurate with such responsibilities (i.e., empowered individuals taking ownership of their areas of program or functional responsibility), and efficient use of small high quality staffs, (i.e., trained, developed, empowered, and equipped with the necessary skills, tools, and work processes to be functionally proficient) are all a part of the overall characteristics of successful commercial and government projects that were the basis for our transition to CAO/IPT. The following discussion synthesizes key events that significantly influenced our evolution and current organization structure and operating concepts over the last fifteen years:

- ◆ In July 1989, the Defense Management Report (DMR) directed certain DoD organizational changes to implement the Goldwater-Nichols DoD Reorganization Act of 1986 (Public Law 99-433), to streamline the acquisition process, and to enhance acquisition accountability. The DMR mandated designation of a single civilian official at the Assistant Secretary-level within each Military Department as the Component Acquisition Executive (CAE). Within each Service, the CAE manages all major acquisition programs through Program Executive Officers (PEOs). The Assistant Secretary of the Navy (Research, Development and Acquisition) (ASN(RD&A)) is the Navy CAE.
- ◆ In October 1990, the Navy Plan for Initial Implementation of the DMR was issued. This Plan established three naval aviation PEOs, reassigned certain major acquisition programs and related non-major programs from NAVAIR to PEO management structures, and redefined NAVAIR's principal mission to three primary roles: 1) providing in-service support; 2) managing programs not assigned to PEO structures; and 3) providing support services to the PEO/PMs without duplication of function. The three naval aviation PEOs are: PEO for Tactical Aircraft Programs (PEO(T)); PEO for Air ASW, Assault, and Special Mission Programs (PEO(A)); and PEO for Strike Weapons and Unmanned Aviation (PEO(W)). In April 1990, COMNAVAIR turned over acquisition management accountability and authority for major and related programs assigned to PEO structures. The figure at the end of this chapter shows the current program realignment. A joint service PEO has also been added for the Joint Strike Fighter (JSF).
- ◆ In May 1995, SECNAVINST 5400.15A was issued by the Secretary of the Navy to describe the relationships between ASN(RD&A), PEO's/Direct Reporting Program Managers (DRPM)s, the Chief of Naval Operations (CNO) and the Commandant of the Marine Corps (CMC) for research, development, acquisition, and associated life cycle management responsibilities. As defined therein, PEO's and DRPMs are responsible for managing assigned programs and all aspects of life cycle management for those programs. In doing so, PEOs and DRPMs report directly to the CNO and CMC, through the applicable SYSCOM Commander, for matters pertaining to in-service support. However, PEOs and DRPMs will continue to report directly to ASN(RD&A) for all matters pertaining to acquisition.
- ◆ In August 1997 NAVAIR concluded a four-year transition from a traditional program/functional matrix organization with unique organizational and functional characteristics inherent at each NAVAIR site/activity, to a seamless (i.e., uniformly configured) organization centered around PM-led IPTs that are supported by personnel, processes, and facilities provided from eight competencies. The transition began in the Spring of 1993 with a Reengineering Study Team consisting of senior management personnel from throughout the NAVAIR who initiated a review of our NAVAIR/PEO organization in light of the impact of the Base Relocation and Closure (BRAC) 1993 effort and the anticipated future budget outlook for Naval Aviation. This

review, generally referred to as CONOPS (Concept of Operations) and presented at the Commander's Conference of October 1993, concentrated on how we could better operate our business and how a potential restructuring could accommodate and build upon the BRAC consolidation challenges. The results and recommendations of the Reengineering Study Team's review were incorporated into the Commander's Team "Transition Plan" of 31 January 1994. Additional guidance has since been provided by the IPT Manual of December 1996, and the NAVAIR Transition Plan of February 1996.

The two major thrusts of our CAO/IPT concept of operations focus on how NAVAIR effectively concentrates resources on the needs of our customers and how NAVAIR organizes to preserve and regenerate resources to meet the future needs of Naval Aviation. The Team has developed IPTs, fully empowered, under PMA leadership, to manage their assigned program responsibilities and resources from concept to disposal (i.e., product focused life cycle management), and a CAO to develop and sustain resources in support of IPTs and other needs.

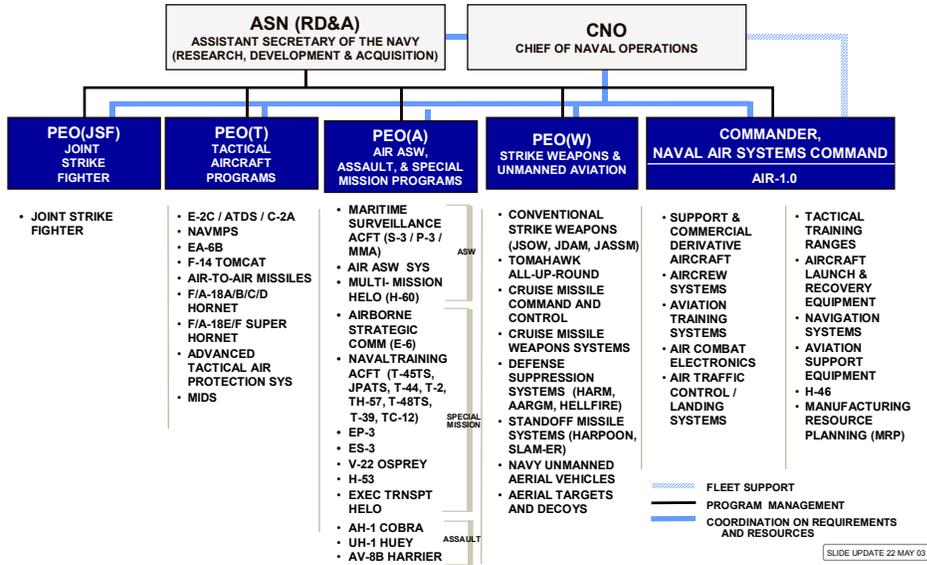
a. Teams. The heart of our CAO/IPT concept of operations is the operation of IPTs under the direction of Program Managers Air (PMAs). Our program managers, in their efforts to develop and deliver products, services, and support to our customers, now have control over their technical and supporting personnel at every site. These IPTs, with responsibility spanning the complete program life cycle, provide a responsive, single face to the customer, improving our ability to control performance, cost, and schedule. Similar benefits have accrued with formation of Externally Directed Teams (EDTs), Enterprise Teams (ETs), and Product Support Teams (PSTs). EDTs are those teams formed to manage support of programs provided to customers external to NAVAIR, i.e., teams supporting non-Naval Aviation customers, including other services. ETs support multiple customers and are formed to manage functions essential for the development, operation, and maintenance of the Team to ensure mission success. PSTs represent direct project-related work that is not easily identified by individual customers but involves hands-on efforts to deliver products and efforts from individuals who support many customers.

b. CAO. The CAO links people with like capabilities across all NAVAIR sites into competencies. The eight Team competencies, hereafter referred to as "competencies" are: Program Management (1.0), Contracts (2.0), Logistics (3.0), Research and Engineering (4.0), Test and Evaluation (5.0), Industrial (6.0), Corporate Operations (7.0), and Shore Station Management (8.0) (as of 1 October 2001, the NAVAIR Comptroller will be organized as a separate competency (AIR-10.0)). These competencies provide both organization-wide pools of talent and the leadership to unite people who are doing similar work by common processes, and to train and develop these people to proficiency. Instead of only thinking of a specific site's personnel and capital resources to solve a problem, the Team is able to use its total strength. The central functions of the CAO are to develop and nurture processes, prepare and train people, and provide facilities to support the success of IPTs, EDTs and ETs aimed at satisfying customer demand.

ACQUISITION PROCEDURES: The charters for the PEOs and DRPMs provide that where possible, NAVAIR instructions implementing DoD/DoN acquisition policy will be adhered to in the conduct of acquisition operations. This ensures consistency and uniformity of acquisition and support across Naval Aviation weapon systems/equipment under PEO, DRPM, and NAVAIR responsibility. This Acquisition Guide provides an overview of many of those critical acquisition processes. However, it should be understood that PEO/DRPMs also have the authority to deviate from such instructions in the exercise of sound business and technical judgment.

POC: AIR-1.1.1A, room 354, bldg. 2272, (301) 757-6623

NAVAL AVIATION ACQUISITION PROGRAM ALIGNMENT



CHAPTER III: THE AT&L KNOWLEDGE SHARING SYSTEM (AKSS) VIS-A-VIS DESKBOOK

WELCOME TO THE AT&L (AQUISITION, TECHNOLOGY & LOGISTICS) KNOWLEDGE SHARING SYSTEM (AKSS)

The AT&L (Acquisition, Technology & Logistics) Knowledge Sharing System (AKSS) was launched in October 2002 to replace the Defense Acquisition Deskbook (DAD). Like its predecessor, Deskbook, AKSS will continue to provide acquisition information for all DoD service components and across all functional disciplines.

WHAT IS THE AKSS?

AKSS serves as the central point of access for all AT&L resources and information, and to communicate acquisition reform. As the primary reference tool for the Defense AT&L workforce, it provides a means to link together information and reference assets from various disciplines into an integrated, but decentralized information source. The vision for AKSS is to not only be a reference source for policy documents, but to foster and facilitate the growth and sustainment of AT&L related communities of practice (CoP). CoP's are an integral part of the AKSS vision and serve to promote sharing of discretionary assets (lessons learned, best practices, templates, etc.) on a continuing basis. CoP's do this by bringing together individuals who have a common interest in a particular topic and who find value in connecting to peers while increasing their knowledge and understanding of the subject matter to better perform their jobs.

How does the change from legacy Deskbook to AKSS impact me?

AKSS is designed to ensure that the information it provides is the most current information available. The new philosophy of directing users to the official source for references and documents assures you that you are accessing the most currently published version of policy documents and references.

Why does it seem that AKSS has less content than Deskbook?

Because AKSS references the official sources for AT&L policy documents rather than keeping a copy of documents, all content must be submitted and maintained by the individuals that manage those documents. During this transition process, we are attempting to locate all policy owners and asking them to review their policies for currency and to provide links to their official policy sites. If no site is available they may also provide the policy document directly by using the AKSS document management tool. Until this process is complete, AKSS may not have all the documents that were formerly held in Deskbook. The legacy Deskbook system will remain available until we have accomplished the orderly review and transition to AKSS.

CAPABILITIES

AKSS provides the AT&L workforce with a single entry point to acquisition; technology and logistics resources, which can save, time and increase productivity. AKSS includes Links to:

- **Mandatory Documents:** Laws, directives, policies, and regulations. For example FAR, DFARS, Service Supplements, and DoD Document
- Improved Education and Training Content
- Improved listing of Software Tools
- Discretionary Guidebooks and Handbooks
- On-line CD ordering capability
- Best Practices/Lessons Learned Center
- Expanded AT&L Website list and added new interface that allows access alphabetically and topically

DESKBOOK WEBSITE

The AT&L Knowledge Sharing System <http://www.deskbook.osd.mil/> is an entry point for acquisition information, a place to receive up-to-date policy and procedures, to receive answers to your acquisition questions, and a way to communicate with the acquisition community. Through the website you have the ability to **“Ask a Professor”**. Accessible from Toolbar as well as the World Wide Web. Submit your acquisition related questions and receive a response from an expert. You can also search previously asked questions and answers. **Learn about upcoming events and training opportunities. View new policy and guidance. Access to pertinent web sites through Acquisition Links. Send your Frontline Wisdom. Software tool catalog:** Search the Software Tool Catalog for the latest information on available software tools to assist you in doing your job. The tool information that is provided in this electronic catalog spans all functional areas.

POC: DAU.(703) 805-4876

CHAPTER IV: PROGRAM INITIATION PROCESS

Discussion: With the new acquisition life-cycle model described in the recently updated DoDI 5000.2, formal program initiation can occur at Milestone B or Milestone C. Milestone A, held to obtain the decision authority's approval to enter the Technology Development Phase, is never used for formal program initiation. Milestone B authorizes entry into System Development and Demonstration, and is for most programs the point of formal program initiation. For those programs that do not require a development phase, program initiation can occur at Milestone C, the decision point for Commitment to Production.

Source Documents:

DoDI 5000.2

CJCS INST 3170.01C

Concept Refinement: Concept Refinement is the first phase in the acquisition life-cycle and is used to refine the initial concept and develop a Technology Development Strategy (TDS). Entrance into this phase requires:

a. An approved Initial Capabilities Document (ICD) resulting from the analysis of potential concepts, sources of such concepts to include, as appropriate, other Services and DoD agencies, international systems from allies, and cooperative opportunities. Detailed guidance on ICDs can be found in the CJCSI 3170.01C of 24 June 2003. The ICD replaces the requirement for a Mission Need Statement (MNS) (MNS documents in staffing as of 24 June 2003 will still be accepted in lieu of an ICD. Programs that have already completed Milestone A are not required to update the MNS with an ICD; however, no MNS greater than two years old will be used to support a Milestone A (or programs proceeding directly to Milestone B or C)).

b. An approved plan for conducting an Analysis of Alternatives (AoA) for the selected concept documented in the approved ICD.

The Concept Refinement Phase may be initiated by a Concept Decision, at which the Milestone Decision Authority (MDA) for the prospective program approves the AoA plan and establishes a date for the Milestone A review. The MDA decision to begin Concept Refinement does not mean that a new acquisition program has been initiated.

The purpose of the AoA is to refine the selected concept documented in the approved ICD. The AoA assesses the critical technologies associated with the concept, including technology risk, technology maturity, and, if necessary, technology maturation and demonstration needs. The AoA should consider existing commercial-off-the-shelf (COTS) solutions drawn from a diversified range of large and small businesses.

For potential ACAT I and IA programs, the results of the AoA shall provide the basis for the Technology Development Strategy (TDS) (see DoDI 5000.2, sections 3.5 & 3.6 for further details on the TDS).

Technology Development: The Technology Development Phase is entered at Milestone A. The purpose of this phase is to reduce technology risk and to determine the appropriate set of technologies to be integrated into a full system. Technology Development is a continuous technology discovery and development process designed to assess the viability of technologies while simultaneously refining user requirements. The phase should reflect close collaboration between the S&T community, the user, and the system developer. A favorable Milestone A decision to enter Technology Development does not mean that a new acquisition program has been initiated.

The ICD and, where applicable the TDS, shall guide the Technology Development effort. Multiple technology development demonstrations may be necessary before the user and developer agree that a proposed technology solution is affordable, militarily useful, and based on mature technology.

If an evolutionary acquisition strategy is being used, the initial capability represents only partial fulfillment of the overall capability described in the ICD; successive Technology Development efforts would be initiated until all the required capabilities have been satisfied. In an evolutionary acquisition, the identification and development of the technology necessary for follow-on increments continues in parallel with the acquisition of preceding increments.

The potential program exits Technology Development when an affordable increment of militarily-useful capability has been identified, the technology for that increment has been demonstrated, and a system can be developed for production within a relatively short timeframe (normally less than five years). During Technology Development the user shall prepare the Capability Development Document (CDD) to support program initiation, refine the integrated architecture, and clarify how the program will lead to joint warfighting capability. The CDD builds on the ICD and provides the detailed operational performance parameters necessary to design the proposed system. Detailed guidance on CDDs can be found in the CJCSI 3170.01C of 24 June 2003. The CDD replaces the requirement for an Operational Requirements Document (ORD); however, ORDs will be accepted for six months after 24 June 2003, after which only ORD updates and CDDs developed in accordance with CJCSI 3170.01C will be accepted. An already validated and approved ORD may be used to support a Milestone B or C decision in lieu of, respectively, a CDD or Capability Production Document (CPD) for up to two years after 24 June 2003.

Milestone B. A Milestone B decision follows completion of the Technology Development Phase and is used to initiate the System Development and Demonstration (SDD) Phase. Milestone B, for most programs, constitutes formal program initiation and it is usually at or just prior to this point that the program's acquisition category (ACAT) designation is assigned.

Entrance into SDD depends on technology maturity (including software), approved requirements, and funding. Prior to beginning SDD, users shall identify and the requirements authority shall approve the key performance parameters (KPPs), which will be incorporated in the CDD. At Milestone B, the PM shall prepare and the MDA shall approve an acquisition strategy to guide the program through SDD, and an Acquisition Program Baseline establishing performance, schedule, and cost program goals, expressed in objectives and thresholds, shall be signed by the PM and the Resource Sponsor, and approved by the MDA. The program should be fully funded at Milestone B. Further details on the SDD Phase and Milestone B can be found in DoDI 5000.2, section 3.7.

Milestone Information/Documentation: Prior to a formal milestone review, certain mandatory acquisition information/documentation for the program is required. Charts depicting the statutory and regulatory information/documentation requirements, and at what specific milestones they are required, can be found in DoDI 5000.2, enclosure (3). A similar chart in SECNAVINST 5000.2B, enclosure (5) (Part 5) also depicts the ACAT level applicability for each information/document requirement and who has preparation and approval responsibility. However, keep in mind that SECNAVINST 5000.2B is almost seven years old, and while a new SECNAVINST 5000.2C is currently being developed, the information/documentation requirements listed in DoDI 5000.2 should be followed whenever there is a difference between what is depicted in the DoD and SECNAV 5000 instructions.

Lesson Learned: The program initiation process described above is extracted from DoDI 5000.2, which is written from the standpoint of ACAT I and IA programs. For many lower ACAT programs, particularly ACAT III and IV programs, a formal Concept Refinement Phase and Technology Development Phase may not be necessary if the required technology already exists. For many such programs entry into the acquisition life-cycle begins at Milestone B. For situations such as a COTS procurement, where no Navy development effort is required, entry into the life-cycle can begin at Milestone C. However, regardless of where an ACAT program enters the life-cycle, an initial Acquisition Strategy Review with the MDA should be held in advance of the initial milestone so as to get the MDA's buy-in on the overall acquisition strategy proposed by the PM.

C4I Requirements Certifications: Programs that have C4I requirements must obtain certain certifications prior to ICD, CDD, or CPD. C4I requirements derive from the acquisition and employment of National Security Systems (NSS), which include "equipment that is an integral part of a weapon or weapons systems" (CJCSI 6212.01B). Two primary certifications are the Interoperability Requirements Certification and the Intelligence Requirements Certification, described below.

Interoperability Requirements Certification: Initially, and prior to each milestone review, a program must obtain an interoperability requirements certification from the Joint Staff (J-6). CNO (N8) submits all ICD/CDD or CPD involving development, acquisition, or modification of C3I systems to the Defense Information Systems Agency (DISA)-managed J-6 Assessment Tool. All ACAT I/IA requirements documents are referred to the JROC, and J-6 coordinates the review process with the other commands/staffs/agencies. For further details, refer to Chapter XI, Part h, Section XI of this Guide.

Intelligence Requirements Certification: “Defense Intelligence Agency (DIA) will certify all MNSs, CRDs, ORDs (*ICDs*, *CDDs*, *CPDs*), regardless of ACAT level, for intelligence supportability and impact on joint intelligence strategy, policy, and architecture planning. The DIA certification will also evaluate open systems architecture, interoperability, and compatibility standards for intelligence handling and intelligence-related information systems.” (CJCSI 3170.01A) For further details, refer to Chapter XI, Part H, Section XI of this Guide.

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CHAPTER V: PROCUREMENT PLANNING, PROGRAMMING, BUDGETING, AND EXECUTION (PPBE) PROCESS

A. Overall System:

Flow Process: A macro view of a procurement program in the PPBE process would cover 12 years from the time of identification in the Future Years Defense Program (FYDP) until those funds expire for new obligation. For a procurement program starting in FY 2005:

<u>Year</u>	<u>Identification</u>
97	First identified in FYDP (sixth year of POM-00)
98	(POM-00 submitted in 5/98)
99	Fourth year of POM-02
00	(POM-02 submitted in 5/00)
01	Second year of POM-04
02	(POM-04 submitted in 5/02)
03	FY 04 budget first sent to Congress (2/03)
04	Amended FY 05 budget sent to Congress (2/04)
05	Current year - first year of availability (10/1/04)
06	Second year of availability
07	Third year of availability. Expires for new obligations on 9/30/07
12	Appropriation canceled (9/30/12)

Purpose: The PPBS process has served as DoD's central strategic planning, program development, and resource determination process since the 1960s. The principle purpose of PPBS has been to integrate the information necessary to craft effective plans and programs that address existing and emerging needs into a disciplined review and approval process. However, the Department's processes for strategic planning, identification of needs for military capabilities, systems development and acquisition, and program and budget development are not well integrated. A major goal of the department is to strategically link any major decisions (e.g. acquisition, force structure, operational concepts, infrastructure) both to the Defense Planning Guidance (DPG) and to program and budget development. Management Initiative Decision (MID) 913 implements interim initiatives from a study to increase the effectiveness of the programming and budgeting process and add additional emphasis to execution. This process will be known as the Planning, Programming, Budgeting and Execution (PPBE) process.

DoD will evolve from an annual Program Objective Memorandum (POM)/Budget Estimate Submission (BES) cycle to a biennial (2-year) cycle. The 2-year cycle will guide the Department's strategy development, identification of needs for military capabilities, program planning, resource estimation and allocation, acquisition, and other decision processes.

Source Documentation:

- DoDINST 7045.7, Navy Programming Manual (OP-90P-1E)
- DoN Budget Guidance Manual, Part I, Chapters 1 and 2 (dated April 1999)
http://dbweb.secnaw.navy.mil/guidance/BGM/1999/BGM_FRAME_U.HTML (must have an account to access)
- MID 913, Implementation of a 2-Year Planning, Programming, Budgeting, and Execution Process, dated 22 May 2003

B. Planning Phase:

Purpose. The focus of the planning phase shall be on the following major objectives: defining the national military strategy necessary to help maintain national security and support U.S. foreign policy 2 to 7 years in the future; planning the integrated and balanced military forces necessary to accomplish that strategy; ensuring the necessary framework (including priorities) to manage DoD resources effectively for successful mission accomplishment consistent with national resource limitations; and providing decision options to the Secretary of Defense to help him assess the role of national defense in the formulation of national security policy and related decisions. This review

shall culminate in the issuance of the Defense Planning Guidance (DPG). This evolution is primarily accomplished at the OSD level based on interaction among the Joint Chiefs of Staff, Commanders in Chief, the intelligence community, and the Defense Planning and Resources Board.

The Quadrennial Defense Review (QDR) will continue to serve as the Department's major statement of defense strategy and business policy. It also will continue to be the single, hierarchical link throughout DoD that integrates and influences all internal decision processes. Public Law 107-314, the FY 2003 Defense Authorization Act, amends 10 USC 118 to align the QDR submission date with that of the President's Budget in the second year of an administration.

The Under Secretary of Defense (Policy) and the Director, Program Analysis and Evaluation (DPA&E) will develop rough order of magnitude estimates of funding and manpower implications of initiatives directed in the DPG, and will provide those estimates to the Deputy Secretary before publication of the DPG. The off-year DPG will be issued at the discretion of the Secretary of Defense. The off-year DPG will not introduce major changes to the defense program, except as specifically directed by the Secretary or Deputy Secretary of Defense. A principle purpose of the off-year DPG will be to provide guidance on planning and analysis required to identify major program choices for the following year's planning guidance.

Responsibility: NAVAIR is not involved in the Planning Phase.

C. Programming Phase:

Flow Process: (Dates listed are for POM-06)

POM-06 CNO Guidance:	3 November 2003
POM-06 N78 Naval Aviation Liaison Group (NALG)	8 December 2003
POM-06 N78 Sponsor Program Proposal (SPP) Build 2004	5 January – 13 February
POM-06 SPPs to N80	29 March 2004
POM-06 Program Decision Memo to FMB	10 May 2004

Purpose: The DoN's objective is to translate the strategic plan as stated in the DPG into specific and achievable programs defined in terms of forces, personnel and resources for the next 6 years. The programming phase focuses on program requirements, and unlike the planning phase, has fiscal and resource constraints. Programming begins with various appraisals/assessments to define funding required to accomplish certain program levels and make recommendations to the Resource Sponsor for their use in preparing the Sponsor Program Proposals (SPPs) which show how the Resource Sponsors plan to allocate their resources. The SPP is presented to CNO, and then to SECNAV. After SECNAV approval, the POM is submitted to OSD in August (along with backup exhibits). The POM is SECNAV's recommendations to SECDEF for the detailed application of DoN resources. The POM contains information on Navy programs for a 6-year period. From September-November, OSD reviews each Service's POM. SECDEF then issues his adjustments to the POM in the form of a Program Decision Memorandum (PDM).

DoN now conducts a joint Program/Budget review. This joint review should enhance the decision-making process to avoid serialized rework and decision revisitation, with emphasis on combined aspects of formulating programs and budgets rather than the sequential process of previous planning, programming and budgeting cycles. The first "full blown" 2-year program/budget submission under the new PPBE process will be due in the fall of calendar year 2004. It will address funding requirements for FYs 2006 and 2007 as the budget years, and FYs 2006-2011 as the Future Years Defense Program (FYDP) years. In the program review, the Director, Program Analysis and Evaluation (DPA&E) will closely examine compliance with prior years' PDMs and with the priorities identified by the Secretary in the DPG. The examination will include assessments of the implementation and programmatic execution of the Secretary's decisions and guidance.

Source Documentation/Guidance:

- DoN Budget Guidance Manual, Part I, Chapters 1 and 2 (dated September 2002)
http://dbweb.secnaw.navy.mil/guidance/BGM/1999/BGM_FRAME_U.HTML (must have an account to access)

- DoD Directive 7045.14 of 22 May 1984, The Planning, Programming, and Budgeting System (PPBS)
- MID 913, Implementation of a 2-Year Planning, Programming, Budgeting, and Execution Process, dated 22 May 2003

Responsibility: The programming phase is the responsibility of N8 (Deputy CNO for Resources, Requirements and Assessments) and the Resource Sponsors (N6/7, N4, and N091). While preparing their SPPs, Resource Sponsors consult and involve appropriate offices within DoN including the Secretariat, FMB, N80, HQMC, and claimants. Requiring financial managers in NAVAIR/PEOs are to ensure the existing program is priced accurately and provide any pricing changes to the Resource Sponsor, provide cost estimates for various program alternatives as requested, and inform the Resource Sponsors of any problems. During this phase, program offices are responsible for keeping in close contact with their Resource Sponsor and notifying him/her of their requirements in the summer time frame.

Review & Approval: CNO and SECNAV

POC: AIR-10.3, (301) 757-7801 or AIR-10.3, (301) 757-7781

D. Budgeting Phase:

Flow Process:

FY 05 submitted to ASN(FM&C)	Issues/ Issue Papers	FY 05 submitted to OSD	OSD Review	PBD/ Reclama	FY 05 submitted to Congress	FY 04 Execution Review
1 Jun-Aug 03	Aug-Sep 03	Oct 03	Sep-Nov 03	Nov-Dec 03	Feb 04	Mar-May 04

Purpose: The DoN's objective is to translate program resource requirements into a finely tuned budget request that is executable and properly priced. There are 3 budget cycles each year: submission to DoN (Jun-Aug), submission to OSD (Aug-Nov), and submission to Congress (Jan-Feb). Within each budget cycle, there are 3 phases: budget formulation, budget justification and budget execution. DoD will formulate 2-year budgets and use the off year to focus on budget execution and program performance. In the budget review, OSD Comptroller will use the metrics that the Components submit as part of the budget estimate submission to make informed resource allocation decisions. Currently, more time is spent deciding how much to spend on a program (input) rather than on what is received for the money (output). The Department will shift its focus to program performance and results, and then use that assessment in making budget decisions. DoD Comptroller and DPA&E will review program performance to assess the degree to which budget estimates sustain and improve the programmatic results. Performance metrics will be the analytical underpinning to ascertain whether an appropriate allocation of resources exists in current budgets. A budget execution review will provide the opportunity to make assessments concerning current and previous resource allocations and whether the department achieved its planned performance goals. To the extent performance goals of an existing program are not being met, recommendations may be made to replace that program with alternate solutions or to make appropriate funding adjustments to correct resource imbalances. Program and budget change proposals will seek to adjust current allocations of resources in order to achieve desired performance goals.

Procurement: Complies with full funding policy.

RDT&E,N: Complies with incremental funding policy.

O&M,N/NR: Complies with incremental funding policy.

Source Documentation/Guidance:

- DoD Financial Management Regulations, Volumes 2A and 2B, Budget Formulation and Presentation (DoD 7000.14R) <http://www.dtic.mil/comptroller/fmr/>
- DoN Budget Guidance Manual, September 2002
- Assistant Secretary of the Navy (Financial Management and Comptroller) (ASN(FM&C)) budget guidance memos

Critical Prior Events: a) Approval for Full Rate or Low Rate Initial Production (or a waiver) must be obtained prior to executing a procurement program, and a carefully constructed and well-defined plan leading to this approval must be available to budget reviewers; and b) current acquisition documents.

Responsibility: The Comptroller (AIR-10.0) and budget divisions (AIR-10.1.1, AIR-10.1.2, AIR-10.1.3, and AIR-10.1.4) are responsible for coordinating the preparation of formal NAVAIR budget requests. The Budget Division (AIR-10.1) promulgates budget preparation guidance and budget control amounts to the preparing offices. PEOs/program managers and other offices, with the assistance of AIR-4.2 cost analysts, prepare exhibits for the various programs by appropriation, and submit them to the budget divisions for approval, compilation, printing, and transmittal.

Review & Approval: ASN(FM&C) reviews and approves or adjusts the NAVAIR budget submission. OSD and OMB jointly review and approve/mark by issuing Program Budget Decisions (PBDs) on the DoN budget. The four Congressional oversight, the two joint conference committees, and both bodies of Congress review, approve/mark, and enact the President's budget.

Lessons Learned: Reviewers at both Navy and DoD levels scrutinize pricing, status of development, program executability, prior year obligation and expenditure performance, slippage in schedules, and procurement lead-times.

POCs:

Overall:	AIR-10.1, (301) 757-7808
PEO(A)/APN:	AIR-10.1.1, (301) 757-7814
PEO(W)/NAVAIR/WPN/OPN/PAN&MC:	AIR-10.1.2, (301) 757-7776
PEO(T)/RDT&E,N:	AIR-10.1.4, (301) 757-7796
O&M,N/O&M,NR:	AIR-10.1.3, (301) 757-8351

E. Execution Phase:

Flow Process:

- 1) Congress passes Appropriation Act.
- 2) Treasury issues appropriation warrants.
- 3) Office of Management and Budget (OMB) apportions funds within all appropriations.
- 4) OSD passes apportionment to the Services with such additional restrictions on execution as SECDEF may direct.
- 5) ASN(FM&C) allocates to OPNAV; OPNAV allocates to NAVAIR and PEOs.
- 6) AIR-10.0 deposit funds to accounts of cognizant managers as established by the Chart of Accounts.
- 7) NAVAIR:
 - ◆ Make direct contracts with business
 - ◆ Issue allotments, Work Requests, Project Orders, Expense Operating Budgets, and other funding documents (PIDs, RCPs) as required to subdivide allocated funds to Navy activities performing work
 - ◆ Issue Impress/MIPRs to activities outside Navy

Purpose: Execution is that phase of the budget cycle which encompasses all the actions required to accomplish effectively, efficiently, and economically the programs for which funds were requested and approved. The process covers a lengthy time span from preliminary administrative actions to commitment, obligation and expenditure of funds, and is implemented by a vast number of people until the appropriation is fully closed.

Source Documentation: NAVAIR Chart of Accounts for each appropriation, published by each of the budget branches annually. See page 39 of this Guide, Types of Procurement Documents.

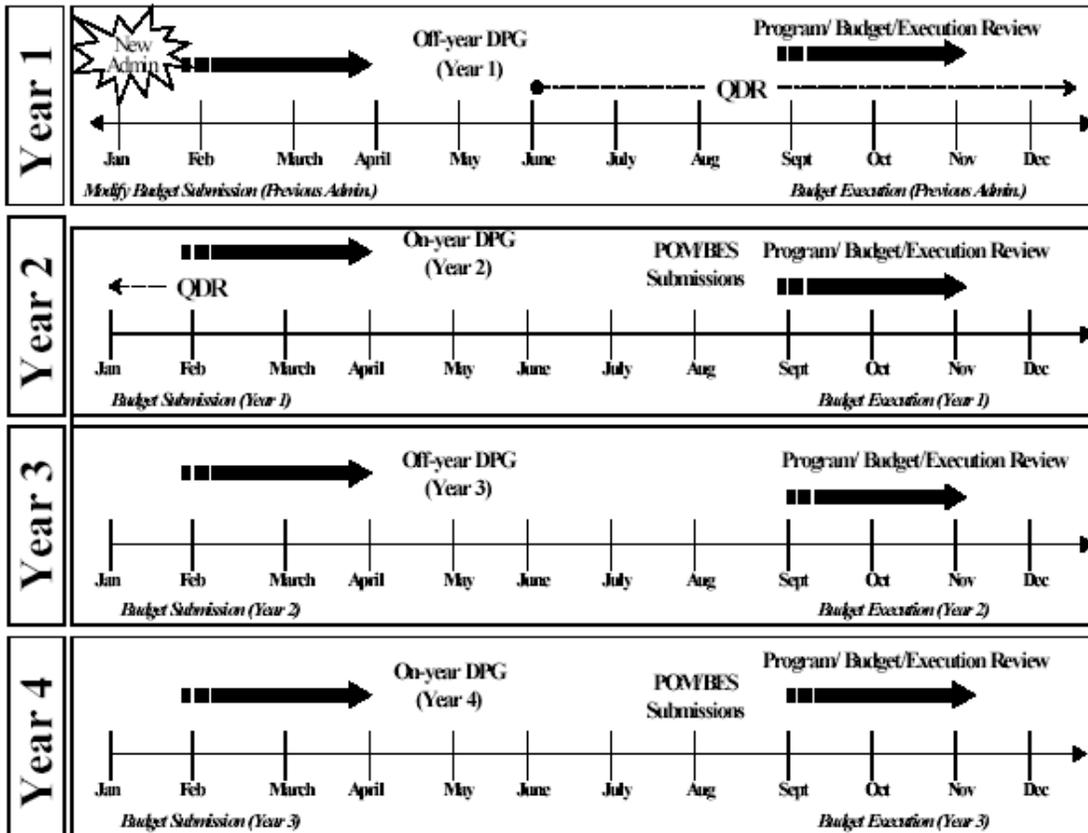
Critical Prior Events: a) Acquisition Plan approval. b) Initiation of the PID must take into consideration administrative lead-time to prepare, route, and process by the contracting officer into order to meet the PMAs/RFPs required contract award date. c) If sole source, J&A approval. d) Funding when ready for contract signature. e) ECP submitted and approved in time to allow contract award by mid fiscal year.

Responsibility: As administering offices, AIR-10.1.1, AIR-10.1.2, AIR-10.1.3, and AIR-10.1.4 control the allocation and availability of funds as well as maintain the integrity and propriety of NAVAIR and PEO funds, and approve all financial encumbrances which are then recorded in SIGMA. Requiring financial managers (RFMs), now called Fund Centers, are responsible for all transactions necessary to their programs. AIR-2.0 negotiates headquarters contracts, and various field and other components negotiate and administer the other contracts as well as perform services, fabricate end items, or undertake a variety of R&D efforts.

Lessons Learned: Early execution planning and close monitoring of execution performance, with a stress on expenditures, are imperative.

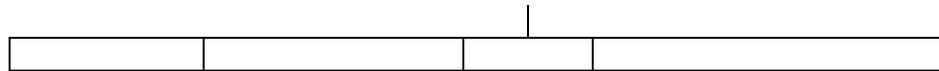
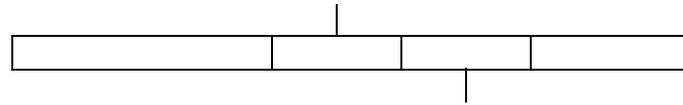
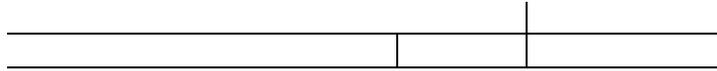
POC: Same as Budgeting Phase

4 Years in the 2-Year Cycle

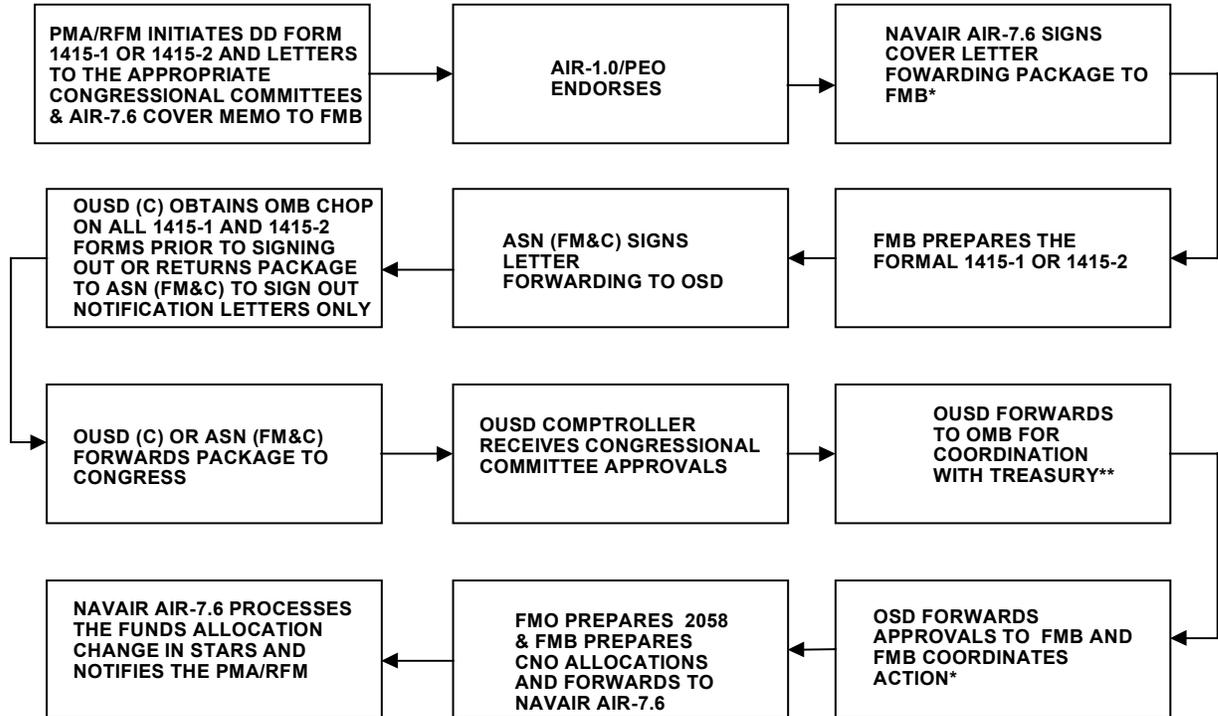


PPBS Timeline

2002			Off-Year 2003									On-Year 2004										
O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A



Routing for Prior Approval & Notification Reprogramming



Note: *1) NAVAIR forwards these actions through ONR when R&D funding is involved; ONR prepares the 2197 and forwards to NAVAIR AIR-7.6 when these actions are approved.

**2) If reprogramming between appropriations

CHAPTER VI: MILESTONE REVIEW/APPROVAL PROCESS

PART A: ACQUISITION CATEGORIES & ABBREVIATED ACQUISITION PROGRAMS

Purpose: Navy acquisition programs are categorized at the time of program initiation as either one of four acquisition categories (ACATs) or as an Abbreviated Acquisition Program. Also, modifications and upgrades to programs out of production are designated as either new start ACAT programs or Abbreviated Acquisition Programs. These ACAT categories, besides establishing the overall visibility of a given program, are used to determine the level of a program's milestone decision authority and, to some extent, the documentation/ information requirements associated with the program.

Source Documents:

DoDI 5000.2, SECNAVINST 5000.2B, Parts 1 and 7

Definition: The defining criteria and associated milestone decision authority (MDA) for ACAT levels, both for weapon systems and information technology programs, are shown below.

<u>Definition*</u>			
<u>ACAT</u>	<u>Weapon Systems</u>	<u>Information Technology Programs</u>	<u>Milestone Decision Authority (MDA)</u>
I (D/C)	>\$365M RDT&E >\$2.19B Procurement	n/a	USD (AT&L) for ACAT ID ASN (RD&A) for ACAT IC
IA (M/C)	n/a	>\$32M per FY >\$126M Total Program Costs >\$378M Total Life Cycle Cost	ASD (C3I) for ACAT IAM ASN (C4I) for ACAT IAC
II	>\$140M RDT&E or >\$660M Procurement	There are no IT programs at the ACAT II Level	ASN (RD&A)
III	Programs which affect the military characteristics of aircraft or ships, or involve combat capability, and which fall under the ACAT II dollar thresholds	>\$15M per FY >\$30M Total Program Costs (both figures in FY1996 constant dollars)	PEO/SYSCOM Commander***/ DRPM (For Some IT ACAT III programs, ASN (RD&A) is MDA)
IV**	Programs not meeting the criteria for ACAT I, II, III, or Abbreviated Acquisition Programs (see below)		PEO/SYSCOM Commander***/ DRPM (For some IT ACAT IV programs, ASN (RD&A) is MDA)

* Unless otherwise stated, dollars shown are FY 2000 constant dollars, and are cumulative for the entire life, or anticipated life, of the program.

** ACAT IV programs are divided between ACAT IVT programs, which require operational test and evaluation (OT&E) and ACAT IVM programs, which do not require OT&E.

*** For NAVAIRSYSCOM ACAT III and IV programs, milestone decision authority is delegated to the Assistant Commander for Acquisition (AIR-1.0)

Abbreviated Acquisition Programs: Part 1 of SECNAVINST 5000.2B provides for a category of acquisition programs that are not within the ACAT system. These programs, called Abbreviated Acquisition Programs, must meet all of the following criteria:

- 1) Have total development costs of less than \$5 million (FY 1996 constant dollars) for the life of the program;
- 2) Have total procurement/services costs of less than \$30 million (FY 1996 dollars) for the life of the program;
- 3) Have total procurement/services costs of less than \$15 million (FY 1996 dollars) for each year of the program; and
- 4) Do not require operational test and evaluation.

ACAT programs or potential ACAT programs may not be artificially divided into separate entities for the purpose of qualifying as Abbreviated Acquisition Programs. ASN(RD&A) or the cognizant SYSCOM, PEO, or DRPM may, for reasons of visibility or other circumstances, elect to designate as an ACAT program any program that otherwise qualifies as an Abbreviated Acquisition Program.

Each SYSCOM, PEO, and DRPM shall be responsible for developing its own policies and procedures for Abbreviated Acquisition Program reviews, documentation, tracking, and designation of program decision authority. Decision authority for Abbreviated Acquisition Programs will normally be delegated to the program manager (PM). Such programs shall not be initiated without funding and a written requirement authorized by CNO/CMC.

ACAT Designation and Designation Change Requests: Program managers are responsible for ensuring that all acquisition programs they are managing, including upgrades to out of production systems, have either an assigned ACAT or are otherwise designated as an Abbreviated Acquisition Program. To request an ACAT designation, PM's should prepare a memorandum to the designating authority using the format found in SECNAVINST 5000.2B, enclosure (7), page II-50. If a PM believes that a program has been assigned an incorrect ACAT designation, or if reasons such as revised cost estimates, adjustments to procurement quantities, or directed program changes warrant an ACAT change, a change request should be submitted using the format cited in the previous sentence. Both types of requests should be forwarded by the PM to the appropriate ACAT designating authority:

<u>ACAT Level</u>	<u>ACAT Designating Authority</u>
ID	USD(A&T)
IAM	ASD(C31)
IAC	ASN(C4I)
IC and II	ASN(RD&A)
III and IVT/IVM	Cognizant SYSCOM/PEO/DRPM

In those situations where an ACAT IV or an Abbreviated Acquisition Program designation is being requested, the request needs the concurrence of the Commander, Operational Test and Evaluation Force (COMOPTEVFOR) or the Marine Corps Operational Test and Evaluation Agency (MCOTEA) as to whether operational test and evaluation is needed. If such testing is needed, the program will be designated as an ACAT IVT.

Lessons Learned: For most programs, the formal ACAT designation is made at Milestone B (program initiation), but usually long before Milestone B it is recognized at what ACAT level the program will eventually end up and who the decision authority will be.

It should be noted that the ACAT IV category is only used by the Navy and Army; DoD and the Air Force only recognize ACAT I, II, and III designations. The Abbreviated Acquisition Program category is strictly a Navy concept.

Rapid Deployment Capability (RDC): RDC procedures can be found in SECNAVINST 5000.2B, enclosure (1), paragraph 1.9. RDC will enable very quick fielding of a limited number of units of a new system to meet urgent

requirements based on combat or potential combat situations, or for safety considerations. It is envisioned that most RDC procurements would evolve into a typical ACAT program after the initial urgent requirement is met.

Acquisition Tracking System: The Program Support Department (AIR-1.1) maintains the Acquisition Tracking System (ATS), an automated database of the NAVAIR/PEO ACAT programs and their respective milestone dates. If a program's ACAT or one or more of its projected milestone dates changes, or if an ACAT designation is assigned to a new program, the PM should contact (AIR-1.1.1A, 757-6623) or (AIR-1.1.1B, 757-6624) so that the ATS database can be updated. This database is used extensively throughout the Naval Air Systems Team for planning purposes, such as the scheduling of milestone decision meetings and Integrated Logistics Assessments.

POC: AIR-1.1.1A, room 354, bldg 2272 (301) 757-6623

CHAPTER VI: MILESTONE REVIEW/APPROVAL PROCESS

PART B: ACQUISITION MILESTONES AND PHASES

Discussion: Acquisition milestone decision points provide a basis for the comprehensive management and progressive decision making associated with program maturation. At each milestone, the Milestone Decision Authority (MDA) is provided by the program manager with a formal presentation on the program's progress to date. The MDA then provides direction as necessary and makes a decision as to whether to authorize the program to proceed to the next milestone.

Source Documents:

DoDINST 5000.2

SECNAVINST 5420.188E

NAVAIRINST 5000.20

New Model versus Old Model: The new DoD 5000 series directives issued in May 2003 made some refinements to the acquisition life-cycle model that was established with the previous DoD 5000 series promulgated in October 2000. This model, which includes three milestones labeled A, B, and C, is sometimes referred to as the "new" model and replaces the "old" model, which was in use prior to October 2000 and which was distinguished by four milestones labeled 0, I, II, and III. Per a DASN(ACQ) memo of 9 June 2003, programs that were post Milestone II under the old model as of October 2000 may continue to proceed to a Milestone III, although at Milestone III such programs will need to comply with the Full Rate Production Decision Review requirements contained in the May 2003 DoDI 5000.2. Programs that were pre-Milestone II in October 2000 have to convert to the new model (i.e., in lieu of Milestone II they must hold a Milestone B).

The diagram on page 25 provides a general comparison of the old and new models, showing how the milestones and phases in each model line up with those in the other model. Milestone 0 under the old model is roughly equivalent to the Concept Decision point to enter Concept Refinement in the new model. The roles of Milestones I and II under the old model are now largely rolled up into Milestone B, which covers both program initiation and entry into the Systems Development and Demonstration Phase. Milestone C is a commitment to enter Low Rate Initial Production (LRIP) and to produce and deploy the system. As shown in the diagram on page 25, a post Milestone C Decision Review (indicated by the review diamond positioned to the right of Milestone C in the new model) will be used to make a Full Rate Production (FRP) decision. Under the old model, FRP is associated with Milestone III. For many programs using the new model, the FRP Decision Review will in effect constitute another milestone decision since the FRP decision is usually one of, if not the, most critical of program decisions.

Milestone Tailoring: Many programs, particularly those designated ACAT III or IV, can be executed with tailored schedules that reduce the number of formal milestones and/or acquisition phases. For example, for programs that are Commercial-Off-the-Shelf (COTS) or are a Non-Developmental Item (NDI), there most likely will not be a need for a Milestone A or B, since there is no Navy development effort associated with the program. The tailoring of program schedules and the elimination of one or more formal milestone reviews or phases must be approved by the MDA early in the program's life cycle.

Milestone Approval: Final approval for a program to pass a milestone and enter into the next phase of the acquisition process is decided by the MDA, who differs depending on the ACAT level of the program. For ACAT ID programs, the final decision is made by the Under Secretary of Defense for Acquisition, Technology and Logistics at a Defense Acquisition Board (DAB); Part 7 of Interim Defense Acquisition Guidebook discusses the DAB process. For Navy ACAT IC and II programs, the MDA is exercised by the Assistant Secretary of the Navy for Research, Development and Acquisition (ASN(RD&A)) at a Navy Program Decision Meeting (NPDM); the NPDM procedures are found in SECNAVINST 5420.188E. For weapons system ACAT III and ACAT IV programs, the MDA has been delegated to the SYSCOM/PEO level. Milestone reviews for ACAT III and IV programs are also referred to as NPDMs. The scheduling of milestone reviews should be arranged by the PM's office with the MDA's office.

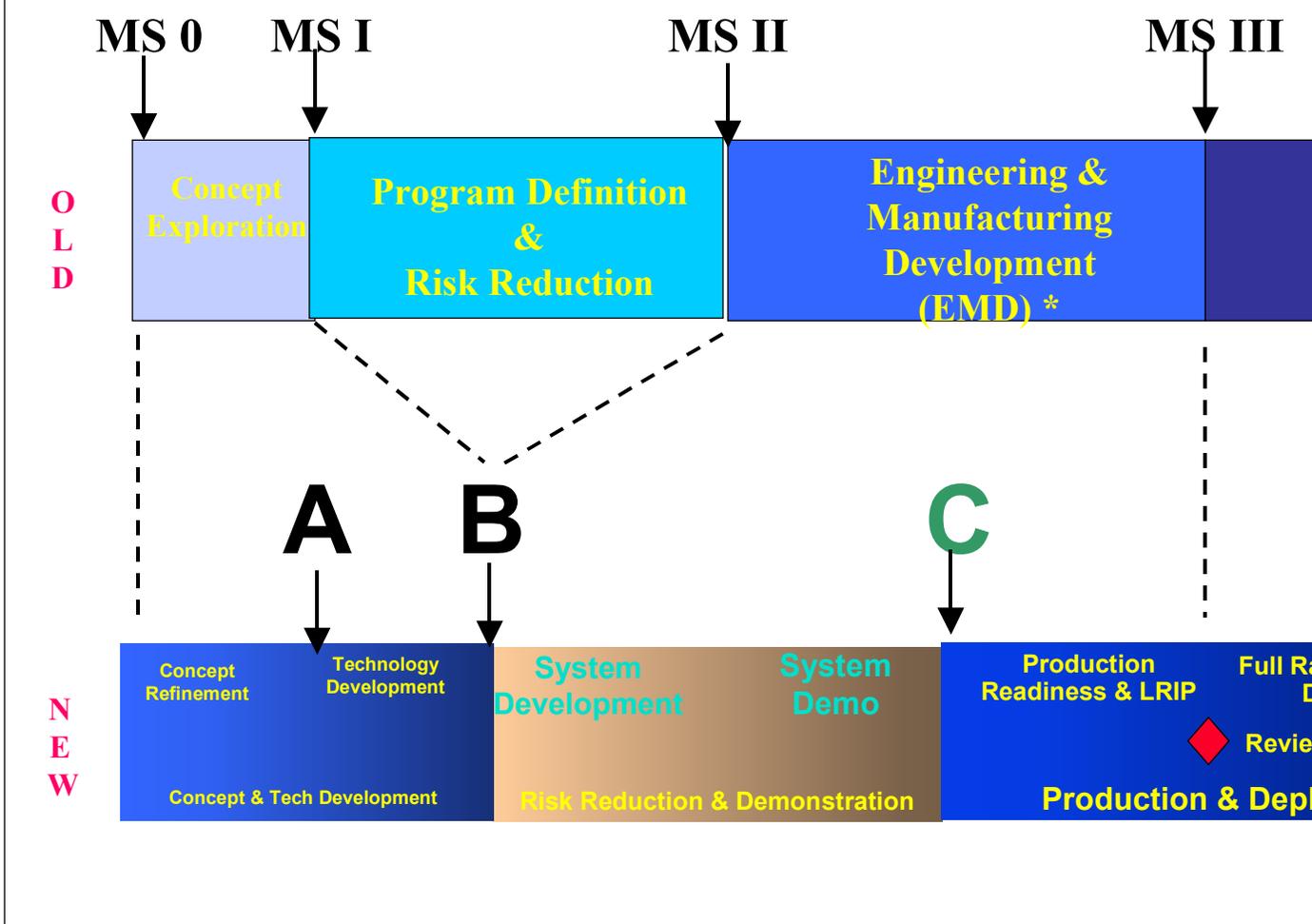
a. For Naval Aviation weapon system ACAT III and IV programs, the MDA is either the cognizant PEO or, for those programs not managed within one of the PEO organizations, NAVAIR's Assistant Commander for Acquisition (AIR-1.0). Each of the PEOs and AIR-1.0 has internal policies for conducting milestone and pre-milestone reviews.

b. For ACAT I and II programs that have MDA at a higher level than the PEO or AIR-1.0, arrangements for an NPDM, chaired by ASN(RD&A), should be made by the PMs's office with the office of the Deputy Assistant Secretary for Air Programs (ACAT ID programs are also reviewed by an ASN(RD&A) chaired NPDM before proceeding to a Defense Acquisition Board (DAB) review at the USD(AT&L) level). Prior to proceeding to an NPDM, ACAT I and II programs are usually reviewed by the cognizant PEO or AIR-1.0 at an Acquisition Review Board (ARB). NAVAIR ARB procedures are covered in NAVAIRINST 5000.20 of 21 February 2003. PMs should consult with their program's PEO/AIR-1.0 acquisition staff on administrative procedures for scheduling and conducting ARBs.

Actual milestone approval is recorded in an Acquisition Decision Memorandum (ADM) that is prepared by the MDA's staff and signed by the MDA. The ADM authorizes the program to proceed to the next acquisition phase, provides direction to the program manager, and establishes exit criteria, which are critical results or events that must be attained during the next acquisition phase and before the next milestone. Per SECNAVINST 5420.188E, the program manager should propose the exit criteria for the next acquisition phase at the conclusion of the milestone review presentation.

An automated NAVAIR/PEO Acquisition Review Board/Navy Program Decision Meeting schedule is maintained by AIR-1.1.1A, 757-6624.

COMPARISONS OF OLD MODEL TO NEW MODEL



OCT00FORMS

CHAPTER VI: MILESTONE REVIEW/APPROVAL PROCESS

PART C: INTEROPERABILITY

Interoperability Certifications. There are three interoperability-related certifications: 1) interoperability requirements certification (MNSs, CRDs, ORDs), 2) supportability certification (C4I Support Plans (C4ISPs)) and 3) interoperability system validation. The first two are performed at each milestone, while the third occurs subsequent to developmental/operational testing (see “Interoperability Testing,” below). The interoperability requirements certification results from a successful J-6-led review of the requirements documents “for conformance with joint National Security System (NSS) and Information Technology Systems (ITS) policy and doctrine and interoperability standards. The J-6 also certifies the interoperability Key Performance Parameters (KPP) derived from the set of top-level Information Exchange Requirements (IERs).” [CJCSI 6212.01B, Encl. D] J-6 manages the review process using a web-based software tool (see “J-6 Assessment Tools,” below).

The supportability certification verifies that C4ISPs “adequately address NSS and ITS infrastructure requirements, the availability of bandwidth and spectrum support, funding, personnel, and identify dependencies and interface requirements between systems.” [CJCSI 6212.01B, Encl. D] The Assistant Secretary of Defense (Command, Control, Communications, & Intelligence) (ASD(C3I)) is the executive agent for supportability certifications. J-6 reviews, comments, and certifies C4ISPs to ASD(C3I) using a process similar to that of the interoperability requirements certification (see “C4I Support Plans,” below).

ORD Revisions. As acquisition programs mature, the systems engineering process often uncovers a need to update the original requirements documents. For example, the results of analysis, experimentation, testing, technology insertion, cost as an independent variable (CAIV) and cost-schedule trades may alter original assumptions and estimates. In any case, all ORDs must be re-validated prior to each milestone review. ORD revisions/re-validations are staffed in the same manner as new ORDs. Program managers should be aware of changes to ORDs that affect the C4I required capabilities and support requirements, and ensure that these become reflected in the associated C4ISP and TEMP. These acquisition documents are also re-evaluated prior to each milestone review for continued sufficiency of resources, compliance with policy/standards, and adequacy of planned interfaces. Re-certification of requirements is accomplished in the same manner as initial certifications, via the J-6 assessment process.

J-6 Assessment Tools. The joint C4I program assessment tool (JCPAT), operated and maintained by Defense Information Systems Agency (DISA), includes three software tools/repositories: 1) J-6 assessment tool, 2) J-8 JROC assessment tool, and 3) ASD(C3I) C4ISP tool. The JCPAT is maintained on two websites—one unclassified (<http://jcpat.ncr.disa.mil>), and one on the SIPRNet (<http://jcpat.ncr.disa.smil.mil>) for classified documents/supplements. The J-6 interoperability certification and supportability certification memoranda are both posted via the JCPAT. The Navy POC for JCPAT entry is DASN(C4I/EW/Space). Both that office and ASN(RDA) CHENG are looking at using the JCPAT web page to host a DoN-only site for Navy internal review of C4ISPs. The ASD(C3I) C4ISP tool is currently accessible by program managers for submission of C4ISPs and subsequent monitoring of their review progress. Each PM should have someone assigned as the C4ISP tool POC. Access is controlled by user ID and password; access may be requested from the JCPAT Functional Administrator, Mr. Bill McGrane, mcgraneb@ncr.disa.mil. Requestors must have a referral from a current JCPAT registered user.

C4I Support Plans. The C4ISP identifies the scope of external C4ISR interfaces/support required for the program and contains information necessary for determining potential interoperability problems. A first copy is due, along with the initial ORD, prior to Milestone I, to provide the basis for the supportability certification process. The C4ISP operational concept and operational requirements are taken from the ORD, as are the three initial C4ISR architecture products: high-level operational concept description (OV-1), operational information exchange matrix (OV-3), and system interface description (SV-1). The C4ISP also identifies C4ISR support that must be provided to execute the TEMP. If the ORD is updated, the C4ISP must be updated accordingly, and if the interoperability KPP (composed of the critical IERs) is updated, the TEMP also must be reviewed for possible adjustment. The C4ISP is currently submitted for assessment via the ASD(C3I) C4ISP tool (see above). For further details, refer to Chapter VII, Part C of this Guide.

Interoperability Testing. (The following information is extracted from CJCSI 6212.01B, Encl. D) “All NSS and ITS, regardless of ACAT, must be tested and testing results certified by DISA Joint Interoperability Test Center(JITC). Testing may be performed in conjunction with other testing (i.e., DT&E, OT&E, early user tests) whenever possible to conserve resources.” “DISA (JITC) must be involved during the planning and execution of interoperability test certification at each program fielding milestone and recertification. DISA (JITC), in conjunction with the C/S/As, will ensure that the required data elements for interoperability system test certification are collected and validated.” “DISA (JITC) works with the system proponent and develops an interoperability certification evaluation plan (ICEP) that makes the most efficient use of resources. This ICEP uses existing data and other testing results to provide the requisite information. The ICEP outlines how the system will be tested against the requirements in the ORD, C4ISP, and TEMP.” “When DISA (JITC) is not the interoperability testing organization, interoperability test plans, analysis, and reports will be coordinated with, and approved by, DISA (JITC) to ensure sufficient information is available to allow a certification decision.” “DISA (JITC) provides the program manager, user command, DOT&E, and J-6 an interoperability test certification memorandum that can be used as input into the production and fielding decision.”

POC: Naval Aviation Interoperability Assurance Office, AIR-4.0E, (301) 757-3257

CHAPTER VII: PROGRAM AUTHORIZATION PROCESS

PART A: ACQUISITION STRATEGY

Purpose: The Acquisition Strategy serves as the roadmap for program execution from program initiation through post-production support. Essential elements include, but are not limited to a summary description of the requirements, overall acquisition approach including the use of evolutionary acquisition, risk management, program management including resources and oversight, interoperability, the use of open systems, the support strategy, and the business strategy. The Acquisition Strategy shall be tailored to meet the specific needs of individual programs. An Acquisition Strategy is now also required for services acquisitions to ensure adequate planning and oversight for large services acquisitions.

Source Documents:

Interim Defense Acquisition Guidebook (formerly DoD 5000.2-R.), Part 2
SECNAVINST 5000.2B, Part 3, Section 3.3
DoN Acquisition Strategy Decision Guide, January 2001

When Required: A program's MDA will approve the program's initial Acquisition Strategy prior to the beginning of Milestone B or at whatever point program initiation occurs. An updated, approved Acquisition Strategy is generally required at each subsequent milestone.

Responsibility: The program manager is responsible for the timely preparation and submittal of the Acquisition Strategy. The PM shall develop the Acquisition Strategy in coordination with the program's Integrated Program Team. The PEO shall concur in the Acquisition Strategy, and the MDA shall approve the Acquisition Strategy prior to release of a formal solicitation.

Format: There is no longer a required Acquisition Strategy format. However, the Interim Defense Acquisition Guidebook, Part 2 provides a detailed description of topics that should be considered for inclusion in the Acquisition Strategy. PMs are to tailor the Acquisition Strategy to each individual program's needs and the expectations of the MDA.

Lessons Learned: In preparing the Acquisition Strategy, the PM should rely on support from cognizant elements of the NAVAIR Team competencies. PMs should allow sufficient time for preparation and approval; generally, the higher the ACAT level the greater the amount of time should be budgeted for preparation and approval.

If so desired, PMs can use the Acquisition Plan (AP) as the vehicle to obtain MDA approval of a program's acquisition strategy. Such a consolidation is more practical in the case of ACAT III and IV programs, where the AP approval level (PEO or AIR-1.0) is the same as the Acquisition Strategy approval level (MDA). See Part B of Chapter VII of this Guide for more detail on APs.

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CHAPTER VII: PROGRAM AUTHORIZATION PROCESS

PART B: ACQUISITION PLAN (AP)

Purpose: The AP is the principal document for in-depth program planning, review, and oversight.

Source Document/Guidance:

Federal Acquisition Regulation (FAR) Part 7.105 and DFARS Subpart 207.105.

NAVAIRINST 4200.36B provides guidance on preparation, coordination, and approval of APs for NAVAIR and Naval Aviation PEO programs.

Critical Prior Events: APs will not be approved unless an approved Operational Requirements Document prior to December 03 or Capstone Development Document (CDD) or Capability Production Document (CPD) after Dec 03 exists. APs for ACAT programs can not be approved unless the program has an approved Acquisition Strategy which is approved by the milestone decision authority, although for some programs (particularly ACAT IIIs and IVs) the Acquisition Strategy and AP may be combined if the milestone decision authority allows.

When Required:

1) While AP approval is contingent upon prior approval of the /Capstone Development Document (CDD) or Capability Production Document (CPD) and the Acquisition Strategy, development of the AP should begin as soon as the program need is identified, and preferably well in advance of the fiscal year in which contract award is necessary. An approved AP is absolutely required for contract award. See Events/Time Standards chart on page 6 of this Guide.

2) APs are required for development programs with a total value of \$5M or more, and production/service programs with a total value of \$30M or more, or with a value of \$15M or more in any one fiscal year (no FY specified in the DFARS). Information Technology programs also fall under these thresholds.

3) The AP is not required for a final buy-out (documented last buy of material or services at a point in time, fully funded, for which no documented foreseeable requirement exists) or a one-time buy. Neither a multi-year contract nor contracts with options/phases are to be considered a final buy-out or a one-time buy. See NAVAIRINST 4200.36B for additional exemptions. NOTE: When the new NMCARs takes effect, these exemptions will go away. The AP will be able to be tailored in these situations.

4) When Foreign Military Sales requirements cause a program to meet the above dollar thresholds, an AP is required.

Responsibility:

The program manager (i.e., the official who provides overall management, direction, control, resource utilization, and integration of a system or item to be purchased) is responsible for seeing that the AP is prepared and submitted for approval in a timely manner.

In preparing the AP, the program manager must rely on his or her Integrated Program Team (IPT) members and their competencies for contracting, engineering, logistics, cost, security, business-financial, training, production management, counsel, and anyone else closely involved with the program.

If separate documents (such as a SEMP, ALSP, TEMP, etc) provide adequate detail for AP content requirements, statements given in the AP should be very concise and provide “highlights” of the program’s approach to that area. More detailed explanations or descriptions that are covered elsewhere in separate documents shall not be duplicated in the AP. Where appropriate, the team should coordinate development of the draft AP with AIR-4.1C, the Specification and Standardization Competency, AIR-4.0P for flight clearance requirements, AIR-3.3 for the

Technical Data Package (TDP), NAVICP Code 033, and the Aviation Support Equipment Program Office (PMA-260) for CASS support.

Format: The Navy does not require a mandatory AP format (See NAVAIRINST 4200.36B). APs shall address each of the requirements cited in FAR 7.105 and DFARS 207.105.

Review & Approval: Once completed and approved by the IPT, the AP is submitted for signature of the program manager, contracting officer, and the AIR-2.0 SeS Department Head (programs)/BU chief of the contracting office (services) and then forwarded to the cognizant PEO/AIR-1.0 (for programs) or AIR-2.0 (non-program related services >\$50M) for final approval.

Revisions: The program manager should review the AP annually to see if a revision is necessary. Specific guidance on what constitutes a revision is provided in paragraph 10 of NAVAIRINST 4200.36B. An AP revision may be forwarded for approval in memorandum format explaining the nature of the change(s), including as an enclosure those pages of the original AP that have been changed. A vertical line in the margin and a date in the upper right hand corner will indicate the changed parts. An approval signature page, similar to the one on the original AP, will be used for AP updates. The same review codes and approval authority as the original AP signs the AP update signature page. Review of the revision is to be confined to those review codes responsible for or effected by the particular functional areas being changed. If the extent of the changes requires a complete rewrite, an entirely new AP will need to be written, staffed, and approved. See NAVAIRINST 4200.36B for additional details.

Lessons Learned:

- ◆ The AP should reflect a minimum of three years of program effort. The signature page should state the contract years which are covered by the AP and when (FY or milestone) the next revision is planned for or anticipated.
- ◆ The use of past performance as a source selection factor should be cited, when applicable, in the AP. It can be mentioned in those paragraphs of the AP that deal with proposed sources and basis for selection, competition, source selection procedures, other contract/business considerations, and risks.
- ◆ Be sure to have an approved Acquisition Strategy for an ACAT program prior to submitting the AP for final approval. The AP cannot be approved without it. Ensure there is no conflicting information between the AP and the Acquisition Strategy. For some programs, particularly those for which the PEO and MDA are the same (ACAT III and IV), the Acquisition Strategy and AP may be combined into one document

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CHAPTER VII: PROGRAM AUTHORIZATION PROCESS

PART C: COMMAND, CONTROL, COMMUNICATIONS, COMPUTERS, AND INTELLIGENCE (C4I) SUPPORT PLAN (C4ISP)

Purpose: As stated in Interim Defense Acquisition Guidebook (formerly DoD 5000.2-R), “The C4ISP provides a mechanism to identify and resolve implementation issues related to an acquisition program’s command, control, communications, computers, and intelligence, surveillance, reconnaissance (C4ISR) infrastructure support and information technology (IT) system, including National Security System (NSS), interface requirements. It identifies C4ISR needs, dependencies, and interfaces for programs in all acquisition categories, focusing attention on interoperability, supportability, and sufficiency concerns.”

Source Documents:

CJCSI 3170.01B, 15 April 2001

CJCSI 6111.01A, 1 September 1999

CJCSI 6212.01B, 8 May 2000

Interim Defense Acquisition Guidebook (formerly DoD 5000.2-R) SECNAVINST 5000.2B, 6 December 1996

DoD Acquisition AKSS

C4ISR Architecture Framework, Version 2.0, 18 December 1997 [in revision – Version 2.1 due out soon]

Background: The Requirements Generation System—described in CJCSI 3170.01C—briefly introduces C4ISPs by saying that they are reviewed by the Joint Staff (J-2, J-6) in the same manner as reviews of requirements documents (MNS/CRD/ORD). CJCSI 6212.01B further defines C4ISPs and provides specific guidance for their submission, and describes the supportability assessment & certification process. It also provides the supportability criteria against which submitted C4ISPs will be evaluated (in Encl. C, App. B). The Interim Defense Acquisition Guidebook (formerly DoD 5000.2-R), Appendix 5 contains procedures and formats for C4ISPs. These procedures and formats are fleshed out and illustrated in the AT&L Knowledge Support System. SECNAVINST 5000.2B implements the DoD policy and procedures for the Navy. *When the updated SECNAVINST 5000.2C becomes available, this section will also be revised accordingly.*

Primary Uses: The process of creating a C4ISP forces a critical examination of the interfaces external to and the support required by the platform/system. This examination brings to light existing or potential shortfalls that could hamper overall system success, as measured against the operational requirements in the ORD. These interoperability and supportability issues are then addressed by the relevant commands/staffs/agencies (C/S/As) early in the acquisition process, so that cost-effective solutions with broad applicability may be found. The C4ISP then continues to be a “living document”—incorporating changes to the system’s capabilities, its operating environment, and employment concepts—all the while facilitating re-assessment of interoperability and supportability.

Development: Some of the following is extracted from the DoD Acquisition AKSS, *C4I Support Plan Guidance and Format*, Appendix C. Please refer to that document for more details concerning C4ISP preparation, submission, reviews, and issue resolution. Throughout the process of preparing a C4ISP for review, preparing offices are encouraged to maintain close contact with the OASD(C3I) Program Analysis and Integration Directorate [OASD(C3I/PA&I)] for guidance and support in developing the document (contact the OSD C4ISP Process Coordination Team at (703) 607-0596).

- Process: The C4ISP preparing office (the program office) should convene a working-level Integrated Product Team (WIPT), composed of the appropriate subject matter experts who are familiar with the system being acquired, the intended use of the system, and to the extent possible, the operational and system architectures within which the system being acquired will function. It is important that the WIPT include representatives of those programs with which the new system will interface; their perspectives can preclude potentially serious omissions from the C4ISP. The resulting draft C4ISP must be coordinated through the Naval Aviation Interoperability Assurance Office (NAIAO, AIR-4.0E) for a NAVAIR interoperability review. The NAVAIR interoperability assessment process is further described in Chapter XI, Part T of this Guide. After the PM signs the C4ISP draft, it is reviewed by the DASN that has cognizance (e.g., DASN(AIR), DASN(MUW)) and DASN(C4I), prior to its being forwarded to OASD(C3I) for DoD review and the supportability certification.

Note: DASN(C4I), in cooperation with the CHENG, is currently developing policy for the Navy headquarters-managed review process. The comments generated as a result of these reviews are forwarded to the PM for issue resolution and incorporation of the appropriate revisions. A copy of the final document is submitted electronically to OASD(C3I/PA&I), with the relevant Acquisition Decision Memorandum.

- **Timeline:** The initial draft C4ISP is developed concurrently with the initial ORD. Both documents are reviewed prior to MS B (MS I), and the J-6 interoperability requirements and C4I supportability certifications are obtained based on the reviews. The figure below, taken from CJCSI 6212.01B, summarizes the requirements and acquisition interface, and shows the general timetable for document submission and subsequent re-validation/re-certification. (The milestones shown are for pre-2000 program documents.)

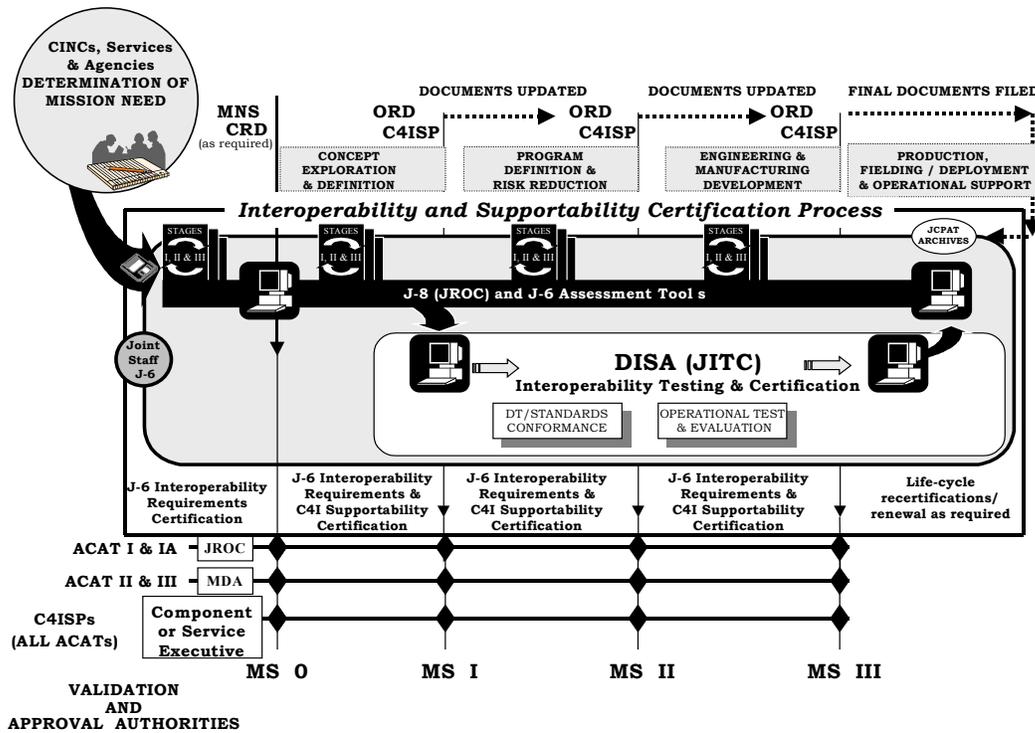


Figure 1. Requirements and Acquisition Interface

In general, the process of developing a C4ISP should start at least 1 year prior to an upcoming milestone. This will permit careful consideration of the infrastructure support requirements levied by and on the program in question, and will allow sufficient time for a thorough (and iterative, if necessary) document review process to take place. The notional timeline in the table below is offered as a guideline. Additional time may be necessary for very large or complex programs.

Table 1. Notional Development Timeline

Activity	Timeline
Start initial plan preparation	Minimum of 1 year prior to the program's next major milestone
Navy internal review	Approximately 30 days
Submission of initial draft (to OASD/C3I)	At least 6 months prior to the milestone
Review of initial draft	Approximately 45 days
Comment roll-up and provision to program	Approximately 2 weeks
Program Office comment response and submission of the final draft for review	Approximately 30 days
Review final draft	3 weeks

- Updates/Revisions: Components shall keep the C4ISP current throughout the program's acquisition process. The C4ISP shall be formally reviewed at each milestone, at each block in an evolutionary acquisition, at decision reviews, as appropriate, and whenever the concept of operations or IT, including NSS, support requirements change. If the ORD is updated, the C4ISP must be updated accordingly, and if the interoperability KPP threshold (composed of the critical top-level IERs) or C4ISR support requirements for testing are updated, the TEMP also must be reviewed for possible revision. Close coordination with affected external organizations is essential!

C4ISP Contents: The DoD Acquisition AKSS, *C4I Support Plan Guidance and Format* provides a thorough description of the C4ISP's contents.

Some key things to note (also see Lessons Learned):

- C4ISR Architectures: Interim Defense Acquisition Guidebook (formerly DoD 5000.2R) suggests that seven standard C4ISR architecture products be included in the C4ISP (OV-1, OV-2, OV-3, OV-6c, SV-1, SV-6, & TV-1). CJCSI 6111.01A states that "All ongoing and planned C4 architectures will be developed in accordance with the 'C4ISR Architecture Framework, Version 2.0' or later." Therefore, the Framework document is the DoD-wide reference for architecture construction, and it should be consulted by the WIPT to ensure that the architecture products conform to the standards. Appendix A to the *C4I Support Plan Guidance and Format* also provides examples of, and guidance for preparing, the required architecture views.
- Information Exchange Requirements (IERs):
 - A single IER represents a one-way transfer of an information element (aggregated to top-level) – if a line between two nodes on the Operational Node Connectivity Description (OV-2) diagram represents a two-way communication requirement, it would be entered into the IER matrix as (a minimum of) two information exchange requirements. All nodes referenced in the IER Matrix must be shown in the OV-2 diagram.
 - Beware of the distinction between Operational IERs and System Data Exchange Requirements (DERs) – IERs describe connectivity relationships between functional nodes, while DERs flesh these out with specific platforms and systems parameters. The C4ISP's IER Matrix is a combination of OV-3 (IER) information and SV-6 (DER) details.
- Derived C4I Support Requirements: In Section 4 of the C4ISP, identify the requirements placed on C4ISR support external to the system being acquired. This includes any system or facility that provides information to, or receives information from the system. The primary purpose of this section is to identify all of the players and the requirements our system places on them. A Strategy-to-Task methodology is recommended. This analysis method may identify requirements that must be addressed through update of the ORD for either the system being acquired or another information consumer/producer system, or through development of a new Mission Need Statement.
- Relationship to the TEMP:
 - The system description, including interfaces with existing or planned systems that are required for mission accomplishment, and interoperability with existing and/or planned systems of other DoD Components or allies, appears in Sections 2 and 3.3 of the C4ISP. This is summarized in Part 1.b of the TEMP.
 - C4I support required for the system's developmental and operational test and evaluation is discussed in Section 4.2 of the C4ISP. This is translated into the TEMP's Future Test and Evaluation sections (both Developmental and Operational) as descriptions of how interoperability with other weapon and support systems will be tested.
- Potential C4I Shortfalls: Section 5 contains an honest appraisal of the program's risk in terms of shortfalls in required C4I support capabilities, manpower, training, or doctrine. Specify the impact of failure to resolve the shortfalls in terms of inability to achieve threshold performance. If the system is relying on technology not currently available, this should be stated. If the system is relying on other systems under development, this should be stated. If the system is dependent on milestones of other programs, this should be addressed here. The solution to an identified shortfall may lie outside the control of the program office. Provide a recommendation identifying the organization with the responsibility and authority to address the shortfall.

Who Reviews C4ISPs: Although Interim Defense Acquisition Guidebook (formerly DoD 5000.2-R) specifically states that "The Component preparing the C4ISP shall manage the review of all C4ISPs," it also directs OASD(C3I) to "lead a DoD-wide review of: (1) C4ISPs for all ACAT I (ID, IC, IAM, and IAC) acquisition programs; (2) All

capstone C4ISPs; and (3) C4ISPs for other acquisition programs in which OASD(C3I) has indicated a special interest.” This means that ACAT II and below C4ISPs need not go through DoD-wide review unless they are designated “OASD(C3I) special interest.” However, the regulation also requires (as does CJCSI 6212.01B) that all C4ISPs—regardless of ACAT—be entered into the ASD(C3I) C4ISP tool. (This is the venue for receiving the J-6 interoperability and supportability certification notifications.) See Chapter VI, Part C, under “J-6 Assessment Tools” for more information on the ASD(C3I) C4ISP tool. The SECNAVINST 5000.2B revision will include the Navy process for C4ISP development, review, assessment, and approval. Until that is final, the guidance in the Interim Defense Acquisition Guidebook (formerly DoD 5000.2-R) applies.

Approval: After resolution of any outstanding issues and incorporation of the accepted changes, C4ISPs are approved by the Program Manager.

Lessons Learned:

- The basis of a successful C4I Support Plan is a thorough understanding of the underlying CONOPs for the system being described. In order to construct architecture products that represent the C4ISR aspects of the system completely, the required operational capabilities and projected operational environment for the system must be clearly spelled out. Any questions involving potential connectivity requirements must be resolved before the C4ISP is finalized.
- Currently, there are no universal pick-lists from which to select functional node nomenclatures, activities, or information elements. Look at other approved C4ISPs for examples.

Resources:

- Navy Interoperability websites on <http://jcs.mil/jist3> and <http://desweb.des.navy.mil> (SIPRNet):
 - Viewable/downloadable copies of all of the source documents cited above
 - All approved Navy MNS & ORDs, 1992 to present
 - C4ISPs previously submitted to OASD(C3I) – useful as examples
 - “C4ISP Tour” of a C4ISP development process
 - Introduction to IERs, the Requirements Generation System, and other interoperability-related topics
 - Additional/updated resources made available periodically
- DoD Acquisition AT&L Knowledge Support System (AT&L KSS), available at <http://www.deskbook.osd.mil>
- C4ISR Architectures Working Group (C4ISR Architecture Framework), at http://www.c3i.osd.mil/org/cio/i3/AWG_Digital_Library/index.htm
- Joint C4ISR Decision Support Center, at <http://www.dsc.osd.mil>

POC: Naval Aviation Interoperability Assurance Office, AIR-4.0E, (301) 757-3257

CHAPTER VII: PROGRAM AUTHORIZATION PROCESS

PART D: TEST AND EVALUATION MASTER PLAN (TEMP)

Overview: The TEMP defines overall structure and objectives of the test and evaluation program, integrating necessary developmental, operational, and live fire test and evaluation activities, resources, schedule, management strategy, and evaluation criteria in a framework sufficient for generating other detailed test plans, schedules, and documents. A more thorough discussion of the TEMP process can be found on Wingspan in the NAVAIR Team Process Tool Kit under AIR 1.6 Processes. TEMPs are required for all Navy ACAT programs. The TEMP is reviewed for currency and updated, if required, at each milestone, when the acquisition program baseline is breached, or when the program changes significantly. A current approved TEMP is required for milestone decision reviews, conduct of testing, and for certification of readiness for operational test phases.

Reference Documents:

DoD Directive 5000.1

DoD Instruction 5000.2

DoD Interim Defense Acquisition Guidebook

SECNAVINST 5000.2

NAVAIRINST 3960.2

Process. A completed TEMP is the culmination of a comprehensive coordinated effort between the PMA, developmental test, live fire test and evaluation and operational test communities, N912, program sponsor, and in the case of oversight programs, Office of the Secretary of Defense (OSD). The TEMP process steps and associated notional timeframe are outline in the following table.

PROCESS STEP	AVG TIME (not including issue resolution delays)
Obtain Test and Evaluation Identification Number (TEIN)	1 to 2 weeks
TEMP Drafting and Review (May require multiple Test Plan Working Group (TPWG) meetings)	Normally 3 months. Can be up to 6 months
AIR 1.6 TEMP Advisory Review (TAR)	1 week
O-6 Review	1 month
Post O-6 Review TPWG	2 weeks
PMA Approval and Submission	1 week
Approval (ACAT Dependent)	ACAT I – 5 months ACAT II – 4 months ACAT III - 3 months ACAT IVT - 2 months ACAT IVM - 1 month SQT&E – 2 months

TEIN. TEINs are used as a tracking number, among other purposes, for acquisition test programs. In general, a signed requirements document (e.g. ORD, ICD, CDD, CPD) is required before a TEIN is assigned. The PM requests a TEIN via N78 and N912 assigns a TEIN that is used as the TEMP number.

Development. Key document inputs to the TEMP are: Initial Capabilities Document (ICD), Mission Needs Statement (MNS) (legacy, replaced by ICD); the Analysis of Alternatives (AoA), Capabilities Development

Document (CDD); Capability Production Document (CPD); Operational Requirements Document (ORD) (legacy, replaced by ICD, CDD, and CPD), Software Statement of Functionality (SOF) (for software TEMPs); and the System Threat Assessment Report (STAR). The TEMP format found in the DoD Interim Defense Acquisition Guidebook, Appendix 2, is required per the SECNAV 5000.2. Deviation from the format must be approved by N0912. Use of TPWGs are strongly recommended because they bring together all parties who have a stake in the TEMP to plan test strategy, determine scope of testing and resources required, and document the agreements in the TEMP. **Start early because TEMP development may require up to 6 months**

AIR 1.6 TAR. After the TEMP is mature and before it is distributed for O-6 Review, a TAR should be conducted. The TAR is a competency “graybeard” review to review the draft TEMP for technical correctness, adherence to DOD, OPNAV, and NAVAIR instructions and guidance..

O-6 Review. When the TEMP is reasonably mature, it is distributed in parallel to all organizations that sign the TEMP. One month is the recommended timeframe for each organization to staff the draft TEMP for comments.

Approval: TEMP routing and typical approval durations are ACAT dependent. **The approval process can be up to 6 months for ACAT IC/D programs, so prior planning is needed.**

Lessons Learned: Early involvement of COMOPTEVFOR and DOTE is crucial. Ensure sufficient time is allocated for TEMP review, re-write, and approval. TPWGs are critical to timely TEMP development/updates, resolving issues and ensuring operational requirements, thresholds, resources, certification requirements and overall developmental and operational test plans are clear, accurate and consistent with overall strategy and other documentation.

POC: AIR-1.6A, (301) 757-6514

CHAPTER VII: PROGRAM AUTHORIZATION PROCESS

PART E: PROGRAM TAILORING/STREAMLINING

Source Documents:

DoDD 5000.1
SECNAVINST 5000.2B

DDD 5000.1, para 4.3.1:

“There is no *one* best way to structure an acquisition program to accomplish the objective of the Defense Acquisition System. MDAs and PMs shall tailor program strategies and oversight, including documentation of program information, acquisition phases, the timing and scope of decision reviews, and decision levels, to fit the particular conditions of that program, consistent with applicable laws and regulations and the time-sensitivity of the capability need. “

Purpose: As noted above, responsibility for program tailoring/streamlining lies with a program's PM and Milestone Decision Authority (MDA). As long as tailoring is consistent with any applicable statutory requirements, the MDA has full authority to reduce or eliminate any procedures or documents that do not add value to executing the program. (A prime example of tailored procedures would be the combination of two or more milestone reviews, or the elimination of Milestone B for a program where there is no development effort.)

Discussion: While the final decision on tailoring/streamlining rests with the MDA, the key to tailoring in regards to a particular program lies with the PM, who is obviously best situated to identify and recommend what should or shouldn't be tailored in regards to his or her program. DoDI 5000.2 establishes the key issues that must be formally addressed at a milestone review. Milestone documentation serves as a vehicle to address these key issues. If a particular document or part of a document does not show how a PM is addressing a key issue, then it is likely that preparation of that document does not help in program execution but simply wastes program resources. The same would apply to non-statutory procedures or reviews. In such situations, the PM needs to bring tailoring proposals to the attention of the MDA for a final decision.

As a general rule, the lower a program's ACAT designation, the more likely it will be a candidate for tailoring/streamlining.

Responsibilities: The PM should identify tailoring/streamlining proposals as early in the program's acquisition life cycle as possible. The exact mechanics of how a PM submits a proposed tailoring approach will vary from MDA to MDA, but the key is to get the MDA's concurrence as far in advance of the next milestone or decision review as possible. That way there will be little chance for any last minute surprises just before the program is ready to go to the milestone or decision review.

Lessons Learned:

- ◆ Requirements documents are the responsibility of OPNAV, no matter who actually writes them. PMs should work with their OPNAV Sponsor as to how to tailor such documents.
- ◆ For less than ACAT I programs, there are relatively few acquisition documents required by statute. Prime examples of such documents are the Acquisition Plan (only required if certain dollar thresholds are breached – see Chapter VII, Part B of this Guide); the Environmental, Safety, and Health Evaluation; and the Operational Test and Evaluation Report (except for ACAT IVM programs). PMs should consult enclosure (5), page 4 of SECNAVINST 5000.2B to ascertain which documents are required by statute.
- ◆ Tailoring for ACAT IC and II programs should be coordinated with OASN(RD&A). PMs who report to a PEO should consult with their respective PEO acquisition staff as to the mechanics of how to present tailoring proposals to their PEO for delegated ACAT III and ACAT IV programs. For programs that have AIR-1.0 as MDA, AIR-1.1.1A should be consulted.
- ◆ The bounds of tailoring are limited, aside from statutory requirements, only by our own common sense as to what is needed and not needed to execute programs smartly and to ensure that our limited resources are used in the most efficient and effective manner possible

POC: AIR-1.1.1A (301) 757-6623

CHAPTER VIII: PROCUREMENT PROCESS

PART A: PID PROCESS

General Discussion

The procurement initiation document (PID) process is initiated with the identification of the program procurement requirement by the Program Manager (PM). This may be a new requirement or a modification to an existing requirement. NAVAIRINST 4200.37A describes the PID process from identification of a requirement by the PM up to the time that Contracts releases a new solicitation to industry, or a modification or order is incorporated into an existing contract. Other funding type PIDs issued through AIR-10.2 (Comptroller and Financial Management Department) to agencies external to NAVAIRHQ may include Military Interdepartmental Purchase Requests (MIPRs), Project Orders (PO), Request for Contractual Procurements (RCPs), etc. NAVAIRINST 4200.37A focuses on increased flexibility in process procedures to allow for tailoring to meet procurement milestones. It reinforces the leadership role of the PM and empowers the Integrated Program Team (IPT) members to make decisions for their competency. The process goals include:

- ◆ ensuring up-front planning, requirements definition, and getting consensus from the IPT on specific services to be procured, as well as establishing the contract line item structure **before** the IPT drafts a PID.
- ◆ building a strong, dedicated procurement team led by the PM or designated representative committed to defining and preparing a quality PID,

What to Concentrate On

PLANNING: The PM issues a requirements letter to the IPT stating what the basic (draft) program procurement requirements are and schedules a procurement planning conference for more in-depth discussion. Allow **18-24 months** from requirements definition to contract award/funds obligation. For NAVAIR programs, having your money obligated as soon as possible following receipt of funds but not later than 1 April (before mid-year reviews) of the fiscal year of funding availability is the NAVAIR's objective. During briefings on the process, questions may come up such as "Why do you start two years in advance for an APN-5 OSIP (Operational Safety Improvement Program) program?" You don't have to begin immediately, but your IPT must plan for what needs to be accomplished and when to start that activity to achieve timely contract award/funds obligation.

Things to consider on an OSIP program include such items as: (1) Does a Basic Ordering Agreement (BOA) exist to allow you to place an order for the modification kit? If one exists, will it still be active the fiscal year in which funding becomes available? If the answer is no, you must start the procurement effort immediately. (2) Will government furnished equipment (GFE) be required as part of the installation kit? Are there contracts available to purchase the items? Is coordination with another PMA, Service, or Agency required? Even if NAVICP Philadelphia procures the item for you, they will need advance-planning notification. (3) Have International Program customers been notified? (4) Should you set up options on future contracts to cover the entire OSIP program? (5) When is the Engineering Change Proposal (ECP) required? (6) When should you go before the Change Control Board (CCB)? (7) Should PMA-205 be notified for potential trainer modifications? These are some of the questions that should be addressed at the PPC.

For production aircraft programs, conduct of a Master Government Furnished Equipment List conference (MGFEL) (which identifies the configuration, quantity and timing of the items the government must supply to the primes), establishment of the contract line item structure, and development of an appropriate acquisition strategy are important steps. For R&D programs, outlining what you need to complete a successful milestone review, and determining where the product (hardware, analyses, reports, etc.) should come from will assist you in identifying what items the contract line item structure and what data needs to be procured.

REQUIREMENTS IDENTIFICATION: Program offices budget three years in advance using the Planning, Programming, and Budgeting System (PPBS) process. Even though Congress may change the final outcome there is no reason not to initiate the PID process by identifying to the IPT on what requirements you based your budget input. Ensure the entire IPT knows what the program baseline is, and what constraints have been placed on the

procurement (e.g., number of deliverables, timing for completion of tests to support milestone reviews, competition, small business, etc.). Do this in written form, so as the budget process continues and changes occur or IPT members change, there will be an audit trail for all members. This “written form” is called the Procurement Planning Agreement (PPA), and documents the procurement requirement, the IPT, and key procurement milestones, as well as actions/issues that must be addressed and resolved prior to contract award.

SCHEDULING: Set dates for completion of tasks and **CONTINUOUS MONITORING** of the achievement of those tasks. The final product cannot be successful unless the IPT leaders are constantly involved in making decisions, communicating changes, etc, to make it happen. REMEMBER. . . .FOR ALL MAJOR PROCUREMENTS, THE PRODUCT AIR-2.0 RELEASES TO INDUSTRY AS A SOLICITATION MUST BE A TEAM EFFORT. . . .IPT LEADERS CANNOT JUST ASSIGN THE PID EFFORT TO ONE PERSON AND SAY "MAKE IT HAPPEN". The success of the PID process is dependent on all competency members being involved, doing their portion, and commenting on the contribution of others so the final product is integrated and results in a quality PID with which Contracts can work to transform into a solicitation that is responsive to the procurement requirement.

Lessons Learned

- Since the PMAs have the requirement to procure something (small or large), the responsibility lies with them to generate the PID and associated documentation (i.e., J&A, AP, Spec, etc.). Some PMAs may assume it is the role of Contracts to prepare the PID since they issue the solicitation. But this is not true, the PMA has the responsibility to generate the documentation.
- Designate one person in the PMA to coordinate, control and monitor the PID.
- Provide adequate training to those who are responsible for the PID e.g.,. The NAVAIR Procurement Process Training Course held three-four times a year. Additional specialized PID training tailored to individual needs of respective PMAs is available through AIR-1.1.2.
- Include FMS personnel when holding PPCs for FMS buys.

Reference Material

NAVAL AIR SYSTEMS COMMAND PID GUIDE (LATEST EDITION) - CD copies are available from AIR-1.1.2. This guide describes in detail how to prepare a PID, which ultimately becomes a solicitation, contract modification or change order. It contains examples of Sections B through H and J to assist the IPT when preparing the various sections of the PID; briefly describes the DoD acquisition process and how the procurement process is integrated with the acquisition milestones; discusses the role of the IPT members, the purpose of the PPC, and the importance of the Data Requirements Review Board (DRRB). The 2003 version of the PID Guide is a new streamlined version. Even though the reference material found in previous editions of the PID Guide is no longer included, the new PID Guide is more user-friendly. It still contains detailed instructions for preparing a PID and examples to assist in the formatting and the content.

NAVAIRINST 4200.37A, “The Procurement Initiation Document Process,” dtd 5 July 2000, delineates the PID process roles and responsibilities. It describes each player’s part in the process and the thresholds and reasons for holding PPCs. An example of a PPA is provided as an attachment to this instruction. This instruction is available through the NAVAIR website for instructions (i.e., <http://www.nalda.navy.mil/instructions/ReportList.cfm>).

NAVAIR PROCUREMENT PROCESS TRAINING COURSE – This three-day course sponsored by AIR-1.1.2 offers briefings from instructors from most NAVAIR competencies and is taught three – four times a year.

TURBOSTREAMLINER at <http://www.acq-ref.navy.mil/tools/turbo>

This is an excellent tool for checking your procurement document for application of the acquisition reform initiatives

NAVAIR PID Guide: <http://www.navair.navy.mil/air10/air11/index.htm>

POC: AIR-1.1.2, IPT Bldg., Room 353 (301) 757-9028

TYPES OF PROCUREMENT INITIATION DOCUMENTS

Document	Purpose
Procurement Initiation Document (PID)	Provides Contracts information necessary for appropriate procurement actions. NAVAIRINST 4200.37A delineates the PID process and responsibilities. The NAVAIR PID Guide details PID preparation.
FUNDING DOCUMENT TYPES OF PIDs	
Request for Contractual Procurement (RCP)	Requests contractual procurement from any Navy activity.
Project Order (PO)/Economy Act Order/Work Request	Limited to funding requirements for work or services to be performed by Navy recipient. Contractual effort cannot exceed 49% of document's reimbursable total.
Order for Work and Services/Direct Citation	Activity determines portion accepted direct Cite. Contractual effort cannot exceed 49% of amount accepted on a reimbursable basis but is 100% of amount accepted on direct cite basis.
Allotments	Used to fund procurements when requirements are determined by receiving activity.
Military Interdepartmental Purchase Request (MIPR)	Request work, supplies or services from other DOD activities (e.g., Army). Also provides funds for ordering items on NAVAIR contracts administered by DPROs.
Interdepartmental Purchase Request (IPR)	Used to procure services, supplies, etc., from activities outside DOD. Requires approval from Legal, AIR-11.0 and Contracts, AIR-2.0.
Military Standard Requisitioning and Issue Procedure (MILSTRIP)	Used to requisition supplies or repair parts from services' stock.
THE FOLLOWING ARE NOT CONSIDERED PIDS	
Data Sheet Letter of Intent	SAP PID/PR To NWCP activities for procurement purposes when no other document will work.

CHAPTER VIII: PROCUREMENT PROCESS

PART B: PROCUREMENT PLANNING CONFERENCE (PPC)



NOTES:

- 1) Procurement Planning Conferences (PPCs) are used to conduct advanced planning for procurements and Engineering Change Proposals (ECPs).
- 2) Program Managers (PMs) should allow two to three weeks from PPC announcement to Procurement Planning Agreement (PPA) signature. Multiple meetings are often required.
- 3) Processing time for PPC events may vary, depending upon the nature/complexity of the required procurement.

Purpose: Acquisition of Naval Aviation systems, equipment, software, and contractor support services by NAVAIR is accomplished through the generation of a PID and subsequent award of contracts. PIDs may also be the result of an upgrade or modification to a system as reflected in approved ECPs. Key to the development and timely award of quality contractual vehicles is the proper use of advanced procurement/obligation planning, accomplished through the conduct of PPCs. The PPC is a formal procurement team meeting (or series of meetings) arranged and conducted by the PM in advance of procurement initiation to: 1) identify and/or verify procurement team members; 2) establish a common procurement requirements baseline; 3) establish mutual agreement on the appropriate procurement strategy; 4) acquaint IPT members with issues or technical tasks that must be resolved and/or accomplished prior to release of the solicitation; and 5) establish a schedule for the preparation, review, and processing of procurement documentation from PPC to contract award. The results of the PPC are documented in the form of a procurement planning agreement (PPA), and approved by PPC principals. The approved PPA represents a commitment by all parties, establishes accountability for all required actions, and serves as the PM's management plan to monitor the progress of the procurement action. The key PPC events also serve as milestones to be used by the PEO, PM, and the program team members to track the progress of the procurement and ECP actions that are equal to or greater than \$1 million in value.

Source Documents: NAVAIRINST 4200.37A, the NAVAIR PID Guide, and the NAVAIR Procurement Process Training Course.

Critical Prior Events: The PPC is the first event in the generation of a Procurement Initiation Document (PID). The PPC should be held as soon as the procurement requirement has been identified. Three related activities precede the PPC: 1) PM identification of the procurement requirement (e.g., NAVCOMPT budget, MGFEL conference, POM, MNS, etc.); and 2) initiation or update of the Acquisition Plan (AP), and 3) Clinger-Cohen compliance. These efforts should be completed prior to PID initiation.

PPC Attendees: The PPC is called and scheduled by the cognizant PM. Attendance may vary from PPC to PPC depending on the procurement, but generally includes cognizant NAVAIR offices directly involved in preparation, review, and approval of the PID. For new procurements, the PPC will normally include: (1) the PM (PPC Chairperson or designated representative), (2) the assigned Assistant Program Manager for Logistics (APML) AIR-3.0, (3) the assigned Assistant Program Manager for Systems and Engineering (APMSE Class Desk), AIR-4.0, (4) the assigned Assistant Program Manager, Test & Evaluation (APMT&E), AIR-5.0, (5) PCO from AIR-2.0, (6) the assigned Cost Team Leader, AIR-4.2, (7) representative from the Comptrollers' office, AIR-10.2, (8) representative from the Small and Disadvantaged Business Utilization Office, (9) representative from the Business and Financial Manager, AIR-7.8, (10) representative from Security, AIR-7.4, (11) the PID originator, and (12) a representative from Office of Counsel (AIR-11.0). If formal source selection procedures may be required for a competitive procurement, a representative from AIR-4.10C should be included as a member of the PPC. Additional members may be invited to attend at the discretion of the PM. For smaller procurements, full attendance by all of the above-cited representatives may not be required.

Procurement Planning Agreements (PPA): The results of a PPC are recorded in a PPA. The PPA represents an informal "contract" among the PPC principals. It identifies events and projected dates required to affect timely contract award, and records action assignments as a result of discussions held to establish an appropriate procurement strategy. The resultant PPA contains the following procurement information: (1) PID number and procurement item nomenclature; (2) list of attendees; (3) date of PPC(s); (4) topics discussed and action item(s) assigned (with action code and due date); (5) dates for submission of the PID to AIR-2.0, solicitation release date, and target contract award date. Upon approval, copies of the PPA are provided to the PPC principals.

Responsibilities: The PM is responsible for calling the PPC, preparing and coordinating the PPA, distributing copies to all participants (within 5 workdays after the conference), and holding the procurement team accountable for schedule and products. The following page provides the PID numbering scheme and attendant PPC requirements. PPC attendees are expected to be trained, knowledgeable of their functional policies/procedures for the competencies they represent, and empowered to make commitments on behalf of the functional competency manager. This will reduce and/or virtually eliminate the need for subsequent staffing of the PID to higher management levels within the competency.

Lessons-Learned:

- ◆ Too often, PPCs are held for the primary purpose of establishing schedule agreements. While this may be appropriate for routine/follow-on procurements, it is inadequate for new procurements or procurements facing unique issues. NAVAIRINST 4200.37A provides a recommended checklist of discussion topics which should be reviewed and discussed to surface issues that could impact the PID process and affect timely contract award/fiscal obligation.
- ◆ While PPC-type reviews should precede each procurement, the review and the required participants should be tailored for each requirement. PPCs for routine follow-on procurements will differ from those for new procurements. Some procurement actions may not necessitate the need for a formal PPC (e.g., admin changes, changes to CDRL, funding documents, etc). However, this should be verified by the PM (or designated IPT representative) with advice of the designated PCO, prior to issuance of the PID number and initiation of the PID. Additionally, the PM should recommend a PPC if programmatic changes are encountered that might impact the procurement strategy or schedule.
- ◆ PPC attendees should be knowledgeable of the practices and policies of their competency. The PM has the right to expect IPT members to be skilled in their respective areas and empowered to contribute to a quality product. Additionally, the PM must be able to expect schedule adherence by the IPT members to a plan of action and milestones mutually agreed to by PPC participants

POC: AIR-1.1.2, IPT Bldg., Room 353 (301) 757-9028

PROCUREMENT CATEGORY CODING DETAIL

CATEGORY “P1” N00019-XX-P1-XXXXX (MAJOR)

- New Program/equipment starts (RDT&E, production, logistics)
- Follow-on hardware procurements (examples follow)
 - Aircraft/Government Furnished Equipment (GFE)/Missile & Components/Support Equipment (SE)/Air Traffic Control (ATC)/Imaging Systems/Launch and Recovery Systems
 - Independent (stand-alone) FMS Solicitations for above
- PPC Required

CATEGORY “P2” N00019-XX-P2-XXXXX (BOAs)

- PIDs to establish Basic Ordering Agreement (BOAs)
- PIDs to place BOA orders (with changes required to basic BOA)
- PIDs to place BOA orders (with no change required to basic BOA)
- PIDs to modify or amend BOAs
- PPC required for BOAs and BOA Orders

CATEGORY “P3” N0019-XX-P3-XXXX (OPTIONS)

- Exercising an established option (all types where changed requirements (e.g., scope of effort, schedule) must be addressed)
- Exercising an established option (all types) with no changes
- PPC is not required except when exercising the option is not routine

CATEGORY “P4” N00019-XX-P4-XXXX (PROVISIONED/MISCELLANEOUS/MINOR)

- General one-time/miscellaneous/provisioned/line item type requirements
 - One-time microcircuit obsolescence buy
 - Production program spin-off or stand-alone R&D contracts (engineering studies/investigations, non-recurring engineering, etc)
 - Production line support (i.e., test equipment/Belmont/lay-away)
 - MANTECH, IMIP, Foreign Comparative Test (FCT)
 - Spares procurements (as add-on to production buy)
 - Repair of Repairables (ROR) contracts
 - Establish new provisioned line items (for future consideration)
- PPC Optional depending on specific PID

CATEGORY “P5” N00019-XX-P5-XXXXX (CONTRACTOR CONSULTING SERVICES)

- PIDs to establish basic CS type contract
- PIDs to place orders against CS contracts
- PPC required for new contracts. PPC not required for individual Delivery Orders

CATEGORY “P6” N00019-XX-P6-XXXXX (SBIR)

- Small Business Innovation Research Program – Phase I
- Small Business Innovation Research Program – Phase II
- PPC Optional for Phase II SBIR requests

CATEGORY “P7” N00019-XX-P7-XXXXX (CONTRACT/FUNDING/OTHER)

- Largest category of PIDs for admin/funding, etc., type requirements
 - Incremental funding/late funds/line accounting change
 - CDRL changes/address changes/code changes/part number changes, etc.
 - Change established contract quantities or delivery schedule
 - Solicitations providing funds for change orders for Engineering Change Proposal (ECPs) (Change Control Board)
 - Specification/SOW changes
 - Adding new line items other than provisioned line items or spares
 - Revised DD 254 contract security classification requirements

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PART C: DATA MANAGEMENT

Purpose: Data Management is the process of applying policies, systems, and procedures for the identification and control of data requirements; ensure all data ordered is required in accordance with the Statement of Work (SOW) and that any unnecessary data is not procured for assuring the adequacy of data; for the distribution or communication of the data to point of use; and for analysis of data use.

Source Documentation:

Defense Federal Acquisition Regulation Supplement (DFARS)

Interim Defense Acquisition Guidebook (formerly DoD 5000.2-R)

DoD 5010.12-M Procedures for the Acquisition and Management of Technical Data

Acquisition Streamlining and Standardization Information System (ASSIST)

@<https://assist.dpas.dla.mil/online/start/>

MIL-STD-963B Department of Defense Standard Practice Data Item Descriptions (DIDs)

NAVAIRINST 4200.21C of 29 Jun 1995, Data Requirements Review Board (DRRB)

Responsibilities: Program Managers are responsible for ensuring their data requirements comply with the policy and procedures set forth in DFARS, Interim Defense Acquisition Guidebook (formerly DoD 5000.2-R), DoD 5010.12-M, and NAVAIRINST 4200.21C.

AIR-1.1.2 is responsible for providing policy and guidance governing the acquisition and management of data, including processing all repetitive Data item Descriptions (DIDs) and approving all one-time DIDs. AIR-1.12 when requested from the Program Manager, will Vice Chair the DRRBs IAW NAVAIRINST 4200.21C.

Background: Acquisition of data and tailoring data requirements will be discussed as part of the Procurement Planning Conference (PPC) with the appropriate Integrated Program Team (IPT) members and user community involved. Sufficient time should be allowed to produce a quality Performance Based Statement of Work and the **minimum** data requirements to support the specific Initial Capabilities Document 9icd0 or Capability Development Document. It is imperative that DoD reduce the cost of data acquisitions, such as requesting data in contractor format versus unique DoD format and ensuring only essential and minimum data is procured. . With realistic time schedules established, the rework of Procurement Initiation Documents can be reduced.

For additional information, please visit website at <http://www.navair.navy.mil/air10/air11/>

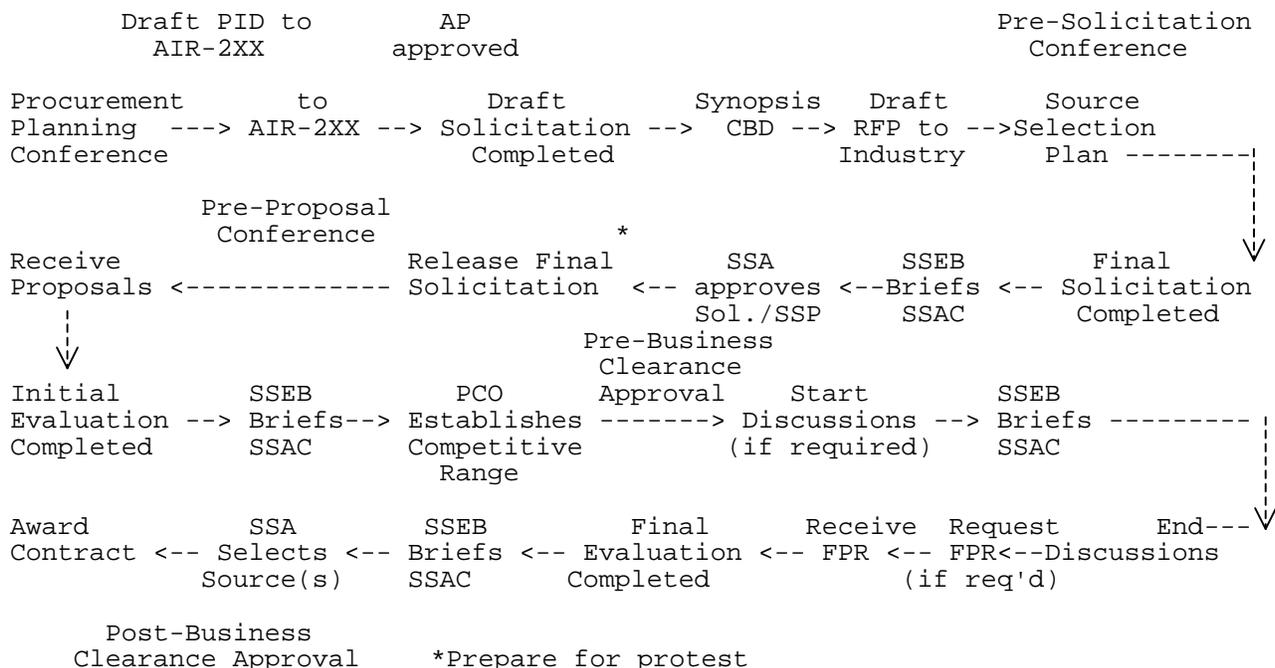
POC: AIR-1.1.2E, bldg. 2272, room 353 (301) 757-9006

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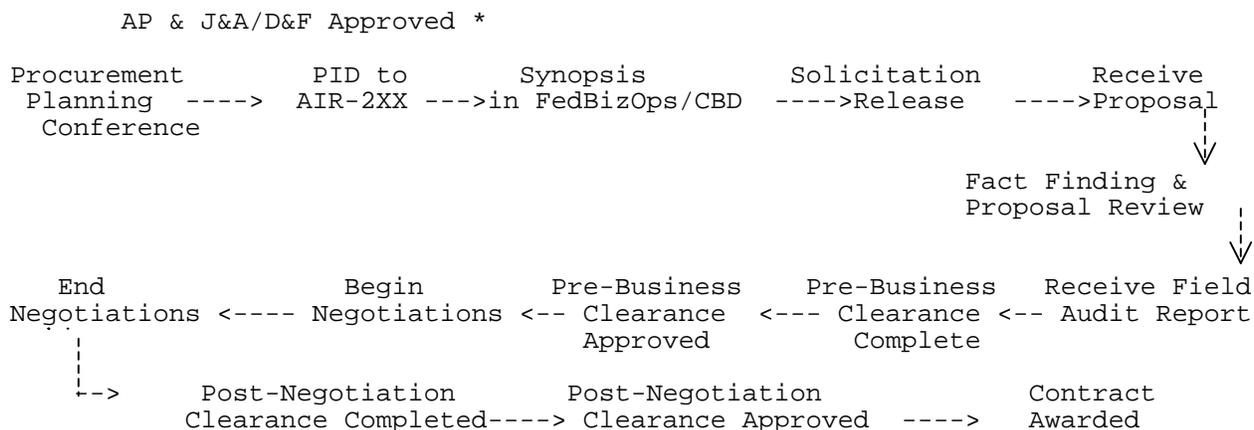
PART D: PROCURING ACTIVITY TO CONTRACT AWARD

Flow Process: FOR MAJOR DOLLAR VALUE CONTRACTS OF \$50M OR GREATER

COMPETITIVE PROCUREMENTS: Typical Source Selection Events



NON-COMPETITIVE: Typical Events



Purpose: AIR-2.0 is tasked to provide contracting for hardware and services to support the NAVAIR mission. As a major systems command, the contracting effort at NAVAIR is oriented toward those items that are complex and of significant value. The Acquisition Plan (AP), if required, should be submitted to the approval authority (PEO or AIR-1.0) at least 60 days prior to submission of the J&A to ensure that the AP is approved prior to the J&A being forwarded. If events require that the J&A and AP be submitted concurrently, forward the J&A under a cover memo that explains the situation and provides the rationale for why the AP was not submitted earlier. A J&A may be submitted for approval without an approved AP provided a waiver of the timing of the AP preparation has first been obtained from the AP approval authority.

Source Documents: Federal Acquisition Regulations (FAR), the DoD FAR Supplement (DFARS), the Navy Acquisition Procedures Supplement (NAPS), and various NAVAIR instructions regarding procurement of supplies and services.

Responsibility: Contracting Officers are responsible for ensuring all requirements of law, executive orders, regulations, and all other applicable procedures including clearances and approvals, have been satisfied in the best interests of the United States. Contracting Officers are given wide latitude to exercise business judgment, and the following actions are just a few required of Contracting Officers in the performance of duties:

- a. Ensure sufficient funds are available for obligation;
- b. Ensure contractors receive fair and equitable treatment;
- c. Request and consider the advice of specialists in audit, law, engineering, transportation, and other fields as appropriate; and
- d. Document that the proposed contract is in the best interest of the Government.

Reviews and Approvals: The following is the main chain link progression for approvals and their impact on critical events:

- a. The Acquisition Plan (when required: with a development contract worth more than \$5M, or a production or service contract worth more than \$30M - including all options, or more than \$15M in any one fiscal year (see chapter VII Part B)) must be approved prior to synopsis;
- b. The results of the synopsis should be known before J&A approval;
- c. The J&A (if applicable) must be approved prior to release of the request for proposal (RFP);
- d. Per DFARS 235.006 (b) (i) Fixed-Price development contracts are reviewed and approved by USD(AT&L) for non-major systems if the contract is over \$25M or for major systems if the contract is over \$25M or over \$10M and funded with FY 1990 or later funds;
- e. Prior to execution, the pre-negotiation clearance and proposed agreement with the contractor must be approved by USD(AT&L) when: 1) increasing the price of a fixed price type development contract by \$250M; 2) decreasing the proposed performance effort on such a contract by more than \$100M; or 3) repricing fixed-price type production options to a development contract which increases the price in excess of \$250M for equivalent quantities.

Additionally, the USD(AT&L) shall be notified, within a reasonable period of time before option expiration, of the intent not to exercise a fixed-price type production option on a development contract for a major weapon system. All notifications and requests will be forwarded to USD(AT&L) via ASN(RD&A);

- f. Pre-negotiation clearances will be prepared and approved prior to entering negotiations for sole source acquisitions and prior to making a competitive range determination in competitive acquisitions;
- g. Notification to Congress is required prior to any contract award greater than \$5M; and

h Post negotiation clearances will be prepared at the conclusion of negotiations for sole source acquisitions and prior to source selection in competitive acquisitions.

Lessons Learned:

- a. THINK COMPETITION!!! (See Chapter XI, Part A). The time spent in the approval process for a sole source can in many cases exceed the time required to get a competitive contract in place. Check with NAVICP and AIR-3.2 for suppliers and data that could enable a competitive acquisition. If the item is clearly sole source, then the strongest possible justification should be presented from the beginning and in advance of the AP submission.
- b. In compliance with COMNAVAIR policy, the program/acquisition manager should form a team represented by all competencies to ensure all aspects of the contract and all requirements of the system/service being procured are identified up front. The time spent here can save rework and frustration later.
- c. Keep the APMC informed of changes in quantity or requirements. Try to structure quantity options for both the current fiscal year and future fiscal years whenever feasible.
- d. Use the power of the APMC with the contractor to reinforce the one face to industry precept. When contractors know that they cannot run the negotiations, they will come to a settlement agreement earlier.
- e. For aggregate requirement type actions, changes can not only slow your program, but many others as well. Identification of requirements is probably the single most difficult and most important issue. Use of options within fiscal year buys is a very powerful tool.
- f. Remember, use of the past performance/systemic improvement clause is now required in all competitive contracts, providing an opportunity to focus on specific performance criteria deemed important in selection of a contractor.
- g. Actively seek out, and discuss with contracting officers, contracts that would be suitable candidates for multiyear procurement. Use of multiyear contracts provides for level pricing of requirements and can save money since it usually results in purchase of economic order quantities and reduces the contractor's risk in purchasing long lead items and committing to expensive up-front set-up costs.
- h. Look for areas of larger competitive or non-competitive procurements, which can be broken out for 8(a) procurement or small business competition. Look also for areas of possible subcontractor competition. These will increase our potential for meeting our assigned competition and small business goals.
 - i. In order to streamline the acquisition process, make maximum use of a standard source selection plan, consider carefully the use of options (tying the exercise of them to development milestones where possible, and encourage contractors to use electronic submission of proposals and use alpha acquisition where possible.

POC: Contact your Assistant Program Manager for Contracts (APMC) or Head, Contract Policy Management Division, AIR-2.1.1, bldg 2272, (301) 757-6596

CHAPTER IX: MANAGING PROGRAM MODIFICATIONS

Source Document:

SECNAVINST 5000.2B, Part1, para 1.4.5.2

Discussion: The chart on the next page, extracted from SECNAVINST 5000.2B, summarizes the various modification scenarios and the associated actions required of the program manager, CNO/CMC sponsor, and the Milestone Decision Authority (MDA).

Any modification that, due to its cost and complexity, qualifies as an ACAT I program, shall be considered a separate ACAT I acquisition effort and managed as such. Modifications that are below the ACAT I dollar thresholds will be considered part of the program being modified. Such modifications will not require a separate ACAT designation unless: 1) the program being modified is out of production or is in production but does not have an ACAT designation, and 2) the modification exceeds the dollar thresholds for being classified as an Abbreviated Acquisition Program (see Chapter VI, Part A). If the program being modified is in production but does not have an ACAT designation, a single ACAT designation covering both the program and the modification(s) will be required. Of course, the MDA always has the option of directing that a modification be managed as a separate ACAT program even if it does not otherwise qualify as such. In addition, a modification could conceivably cause a change in the ACAT level for an ongoing program, in which case an ACAT designation change request shall be submitted for approval.

A modification can result in revisions to the modified program's milestone information (e.g., Acquisition Baseline Agreement, C4I Support Plan, Test and Evaluation Master Plan) that will need to be approved by the MDA and/or the OPNAV Sponsor.

POC: . AIR-1.1.1A, room 354, bldg 2272, (301) 757-6623

Modification Initiation Process (Pick the row that most closely relates to your ongoing program characteristics and proposed modification)

ACAT exists for pgm being modified?	APB exists for pgm being modified?	Mod breaches APB Threshold?	Mod requires additional funding?	Mod breaches Abbreviated Acq Program \$threshold? 4/5/	PM Action	CNO/CMC Action 6/	Program Decision Authority or MDA Action
YES	YES	NO	NO	YES* or NO	Execute mod	Approve Ord*2/	None
NO	NO	N/A	NO	NO	Execute mod	Approve requirement (reqt)	None
NO	NO	N/A	YES	NO	Prepare funding request Execute mod	Approve requirement Provide Funding	None
YES	YES	NO	YES	YES* or NO	Prepare Funding request Execute Mod	Approve ORD* 2/ or reqt Provide funding	None
YES	NO	N/A	NO	YES* or NO	Prepare APB 1/ Execute Mod	Approve ORD* 2/ or reqt Endorse APB 1/	Approve APB 1/
YES	NO	N/A	YES	NO	Prepare funding request Prepare APB 1/ Execute Mod	Approve reqmt Provide funding Endorse APB 1/	Approve APB 1/
YES	YES	YES	NO	YES* or NO	Revise APB 1/ Revise TEMP 2/ Execute Mod	Approve ORD* 2/ or requirement Endorse APB 1/ Endorse TEMP 2/	Approve APB 1/ Approve TEMP 2/
YES	NO	N/A	YES	YES	Prepare funding request Prepare APB 1/ Revise TEMP 2/ Execute Mod	Approve ORD 2/ Provide funding Endorse APB 1/ Endorse TEMP 2/	Approve APB 1/ Approve TEMP 2/
NO	NO	N/A	YES	YES	Prepare funding request Prepare APB 1/ Prepare ACAT 3/ design request Execute mod	Approve ORD 2/ Provide funding Endorse APB 1/ Endorse TEMP 2/	Approve APB 1/ Approve TEMP2/ Approve ACAT request 3/
YES	YES	YES	YES	YES* or NO	Prepare funding request Revise APB 1/ Revise TEMP 2/ Execute mod	Approve ORD* 2/ or requirement Provide funding Endorse APB 1/ Endorse TEMP 2/	Approve APB 1/ Approve TEMP 2/

Notes:

1/"Prepare APB" is for the original ongoing program if a "current APB" does not exist, or for the "modification only" if the modification is to be managed as a separate program. "Revise APB" is for the original ongoing program.2/If a new, or change to an existing, ORD or TEMP is required, see formats for ORD and TEMP, in CJCSI 3170.01B Interim Defense Acquisition Guidebook (formerly DoD 5000.2-R), respectively.3/"Prepare ACAT designation request" is for the "modification only", unless the original program is still ongoing (i.e., in production), in which case the ACAT designation request shall encompass both the original program and the modification(s). See the ACAT designation request and ACAT designation change request content memorandum in SECNAVINST 5000.2B, enclosure (7), page II-50.4/\$ threshold for "Abbreviated Acquisition Programs" is less than: for weapon system programs, \$5M RDT&E, \$15M procurement in any one fiscal year, and \$30M procurement total; for IT programs, \$15M single year program costs and \$30M total program costs.

5/If answer to column 5 is YES*, an approved ORD or ORD revision is required.

6/For IT programs, endorsement is provided by the IT functional area point of contact, approval is provided by the resource sponsor.

This chart is from SECNAVINST 5000.2B, enclosure (1), page 11.

CHAPTER X: CONFIGURATION MANAGEMENT

PART A: CONFIGURATION MANAGEMENT POLICY AND PROCEDURES

Purpose: Configuration management (CM) is a program management discipline comprised of the combined and systematic application of the following four elements: 1) **Configuration Identification**; 2) **Configuration Audits**; 3) **Configuration Control** and 4) **Configuration Status Accounting**. The purpose of CM is to provide an accurate systematic means for documenting and controlling the engineering design of material items so that contract requirements, operational readiness, logistics and life cycle costs can be properly regulated. Depending upon the complexity of the material item being acquired and the approved acquisition and logistics strategies involved, the application of CM can be rather simple or it can warrant the institution of an elaborate program. CM, when applied over the life cycle of a material item, provides the necessary visibility and control over the item's primary form, fit, function and interface (F3I) attributes as well as its life cycle costs. CM verifies that a material item performs as intended and is identified and documented in sufficient detail to support its projected life cycle requirements (i.e., fabrication or production, operation, maintenance, repair, replacement and disposal). CM also facilitates the orderly management of change necessary for improving an item's capability, reliability, and maintainability, and correcting inherent design deficiencies. The minimal cost of implementing an adequate CM program is returned many times in cost avoidance. **The lack of a CM Program can become very costly and may result in such catastrophic consequences as failure of equipment and/or loss of human life.**

Source Documentation and Guidance:

DOD Instruction 5000.2 12 May 2003

MIL-STD-973 Notice III, "Configuration Management," 13 Jan 1995 (Cancelled Sep 2000, to be replaced by EIA-836 currently under development)

NAVAIRINST 4130.1C, "NAVAIR Configuration Management Manual," 31 Jan 1992.

ANSI/EIA-649, "National Consensus Standard for Configuration Management," 06 Aug 98.

MIL-HDBK-61A, "Configuration Management Guidance," 07 Feb 2001.

Configuration Management website: <http://www.acq.osd.mil/sa/se/index.html> and AIR-1.1 website:

<http://www.navair.navy.mil/air10/air11>. CM information is located under the AIR-1.1.3 tab.

When Required: CM is required throughout the life cycle of a material item, from concept exploration through Fielding/Deployment, Operational Support, replacement and disposal.

Background: The planning, application and tailoring of CM requirements for a material item being procured must be documented in a CM Plan prepared by the designated Office of Primary Responsibility (OPR) (e.g. program/project/acquisition manager/Integrated Program/Product Team (IPT).) CM Plans must be maintained as living documents and revised as dictated by the life cycle acquisition requirements of the material item(s) being procured. Approved CM Plans and the establishment/use of formal Configuration Control Boards (CCB) provide the critical foundation for a long and successful CM program. The cognizant OPR/IPT must work closely with the Command's CM Competency Leader (AIR-1.1.3) to ensure applicable CM Plans and associated contract requirements are adequate.

Critical Elements: **Configuration Identification** consists of approved documentation that defines the F3I attributes of a material item. **Configuration Audits** are used to verify such documentation is accurate and will satisfy life cycle requirements. **Configuration Control** is used to regulate configuration change to a material item and its documentation. Configuration control is accomplished primarily through the use of Engineering Change Proposals (ECP) approved by a CCB. **Configuration Status Accounting (CSA)** is used to record the implementation of approved configuration changes to a material item and its approved documentation. All four of these CM elements are critical to establishing a successful CM Program. The overall success of a CM program is dependent upon initial OPR/IPT planning and contractual application, especially the CM Statement of Work (SOW). Additionally, a special Section "H" contract clause, entitled "Configuration Control Procedures," should be included in acquisition contracts for designating the approval authority for Class I & II ECPs and Requests for Minor & Major Deviations (RFD) and Requests for Waivers (RFW). (See MIL-HDBK-61A).

Responsibilities: AIR-1.1.3 is responsible for developing and maintaining the CM policy and procedures governing Naval Aviation. This includes authorizing and administering Decentralized (PM Chaired) CCBs. When chartered by AIR-1.1.3 to operate a Decentralized CCB, PM's are agreeing to comply with the current CM policy and procedures of NAVAIRINST 4130.1C.

Lessons Learned:

- ◆ All acquisition programs are required to have CM Plans approved by AIR-1.1.3. Programs that don't have approved CM Plans eventually experience costly logistical problems with the material item(s) being delivered to the Fleet. This unfortunate scenario greatly diminishes our war fighting capabilities.
- ◆ The inadvertent or sometimes deliberate misclassification or downgrading of proposed Class I ECPs to Class II will inevitably result in costly acquisition and logistical problems. Especially in the areas of supply/support (i.e. spare and repair parts).
- ◆ The improper practice of using Rapid Action Minor Engineering Changes (RAMECs) to retrofit Class I ECP production changes will inevitably drive up life cycle costs. This is especially true of Operational and Support (O&S) Costs, because it forces Fleet personnel to perform a variety of unplanned and unbudgeted modification tasks.
- ◆ Flight Clearances (FCs) do not and can not be used to authorize configuration changes/modifications to Naval Aircraft. This authority, with the exception of the one aircraft prototype/modification allowed by OPNAV 4790.2, "Naval Aviation Maintenance Procedures (NAMPP)", resides with the NAVAIRSYCOM Configuration Control Board (CCB) managed by AIR-1.1.3. Technical Directives (TDs) are increasing the costs of the Navy Flying Hour Program (NFHP) by redirecting maintenance funds to satisfy unplanned and unbudgeted maintenance actions. As a result the NFHP is absorbing the additional costs at the expense of the entire NFHP program. During ECP staffing cognizant Logistic Managers must identify and coordinate any real or potential NFHP cost impact with OPNAV (CODE N78).

POC: AIR-1.1.3, bldg. 2272, rm 353, (301-757-9013)

CHAPTER X: CONFIGURATION MANAGEMENT

PART B: ENGINEERING CHANGE PROPOSAL PROCESS

Purpose: Engineering Change Proposals (ECPs) are generally requested from Original Equipment Manufacturers, Naval Aviation Depots (NADEPs) or any other government or commercial source for incorporating design changes into material items.

Source Documentation/Guidance:

MIL-STD-973, Configuration Management, 13 Jan 1995 (Cancelled Sep 2000, to be replaced by EIA-836 currently in final development)

NAVAIRINST 4130.1C, NAVAIR Configuration Management Policy, 31 Jan 1992

MIL-HDBK-61A, Configuration Management Guidance, 07 Feb 2001 (See Appendix D entitled "ECP Management-Guide")

Critical Prior Events: Conduct engineering investigations to define the scope of the change and find possible solutions to meet the identified requirement. Hold working meetings with contractors and cognizant field activities, logistics managers, and program management personnel to refine the change and establish an adequate acquisition strategy and plan. The PM/IPT initiates the Program Funding Change Proposal (PFCP) and budget process. The AIR-4.1 Class Desk or project engineer drafts the PCO letter requesting the ECP. The PM ensures that there is an approved PFCP (if required), a decision memorandum and a proper CCB Request/Directive, including logistics impact, prior to submitting the ECP to the Change Control Board (CCB) for approval. Maximum use of Appendix D to MIL-HDBK-61A is recommended. This ECP management process was initially created by NAVAIRSYCOM and subsequently adopted for use by OSD and Industry

Lessons Learned:

- ◆ NAVAIR processes approximately 500-1,000 Class I ECPs, RAMECs and Requests for Major Deviations/Waivers per year.
- ◆ The time frame for processing varies greatly from urgent safety related ECPs to routine ECPs/VECPs. Most ECPs require 30 to 70 days for approval. The most prevalent cause for processing delays is lack of prior coordination and planning. Many program offices fail to establish early acquisition strategies and plans for their ECPs. At times, even informal planning is overlooked. Good coordination between the Program Office/IPT, Class Desk, APML, PMA-205 (Training/Trainer change incorporation responsibility), and other Government/Commercial resources in the planning and development stages of an ECP is essential to avoid program disaster. Poor planning causes excessive delays in ECP processing as a result of logistical problems or technically inadequate EPS, which must be subsequently revised and resubmitted. Further delays occur due to lack of tracking and attention by functional managers. The primary delay in implementation of retrofit changes is due to the failure to anticipate the contracting administrative lead-time necessary for obtaining bilateral agreement and/or placing orders. With proper planning, parallel accomplishment of these administration times can be easily accomplished in a timely fashion. Experience has shown that the use of Appendix D to MIL-HDBK-61, entitled "ECP Management Guide," has greatly reduced the ECP preparation, rework, and staffing time for programs which have adopted its use. The need for following these management techniques can not be overstated.
- ◆ Many ECPs are not processed early enough to allow timely obligation of funds which often results in budget cuts or reallocation of funds required to implement a change.

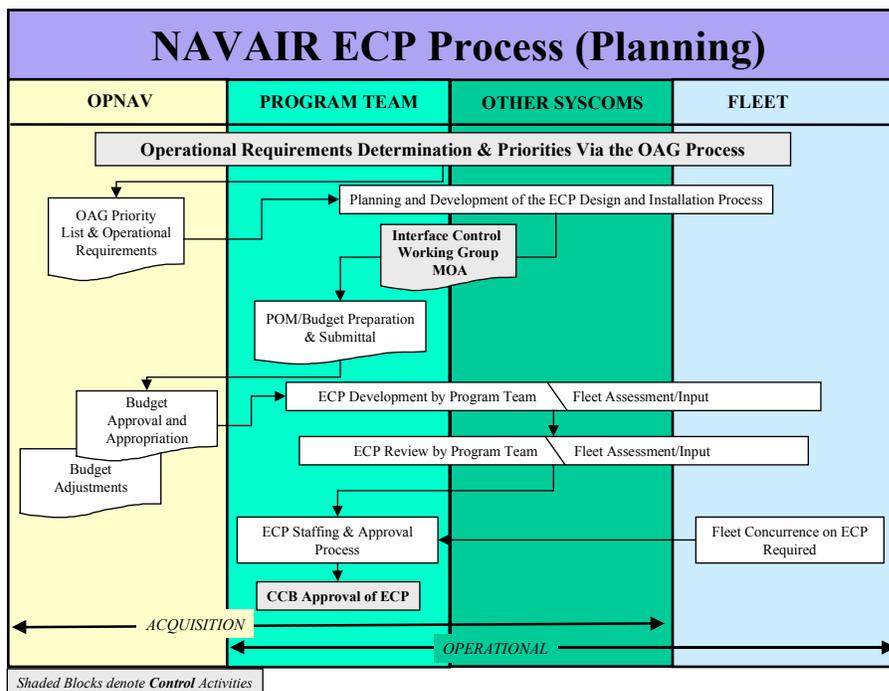
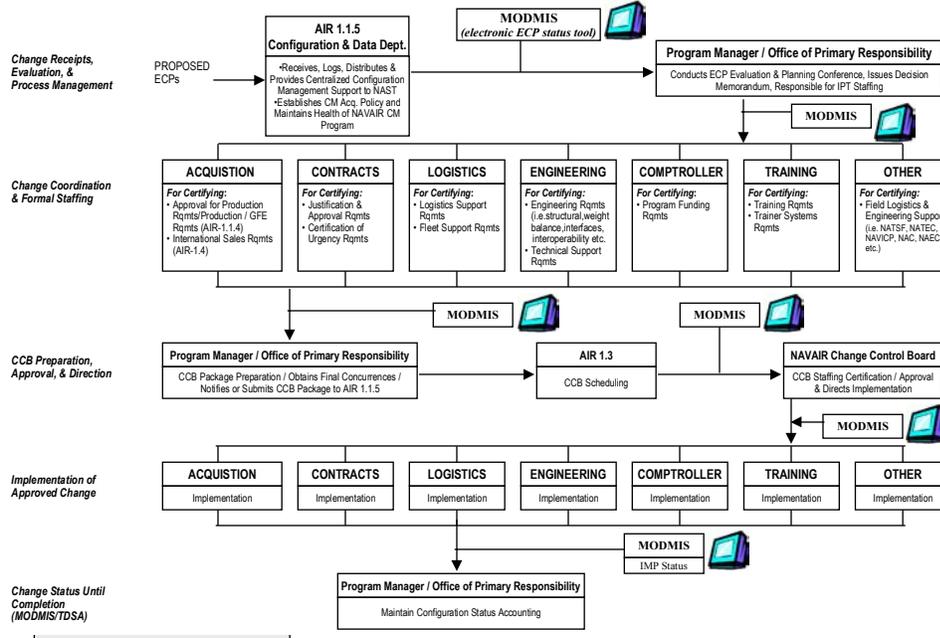
The recently implemented "Two-Step ECP process has been introduced to reduce the average ECP/modification cycle-time from initial funding to the last modification installation without sacrificing CM process integrity and discipline. See the AIR-1.1.3 website <http://www.navair.navy.mil/air10/air11>. For more information on the "Two-Step ECP process. CM information is located under the AIR-1.1.3 tab.

The ECP/CCB Review and Approval process has been automated as part of the NAVAIR SIGMA ERP Program. Use of the SIGMA automated workflow tool to conduct ECP/CCB reviews and disposition greatly reduces ECP and CCB Request processing time.

POC: AIR-1.1.3A, bldg. 2272, rm 353, (301-757-9013).



Configuration Management ECP PROCESS AT NAVAL AIR SYSTEMS COMMAND



CHAPTER XI: KEY TOPICS

PART A: COMPETITION & SOURCE SELECTION

SECTION I: COMPETITION

Purpose: Competition is an issue that must be addressed at several points in a program or system's acquisition. It can be a major stumbling block in Acquisition Plan approval, and it can be a powerful and beneficial method of contracting.

Background: Consideration of competition in contracting is required by law (Competition in Contracting Act (CICA) of 1984), regulation, and policy. To procure using other than competition requires obtaining specific exception authority, and in most cases approval in the form of a Justification & Approval or Determination & Findings.

Discussion: In the life cycle of a system acquisition, there are two basic types of competition - design competition and production competition. Design competition occurs early in the acquisition's life cycle (during concept exploration, demonstration/validation, and possibly E&MD). The objective of design competition is risk reduction, which can be achieved by selecting the one system or concept that will best meet the Government's needs from the competing alternative approaches proposed. Design competition involves two or more contractors competing separate designs without sharing information. Production competition occurs later, when the design specification is stable or when two or more contractors are producing similar or identical systems. Competing contractors may be proposing to the same Government provided specifications. The objective is generally to obtain the required item at a lower cost or price.

Design competition is expensive and the longer design competition is continued the more expensive it becomes. If the demonstration/validation phase is structured so prototypes of competing systems are produced and tested, it is possible to make design selection before starting Engineering and Manufacturing Development (E&MD). One design would provide considerable savings over the cost of taking two or more systems into E&MD.

Whereas design competition is relatively short-lived, production competition may be beneficial throughout the production and maintenance phases, until a final competitive buy-out occurs. Production competition frequently requires competitors to build the same system and to share data and know-how. This often results in contractors teaming with one another, enhancing the maintenance of a competitive base.

A single, integrated procurement planning agreement should be developed that addresses all critical issues, including:

- ◆ Funding
- ◆ Schedule
- ◆ Configuration management
- ◆ Technology transfer
- ◆ Non-Developmental/Commercial Items
- ◆ Contractual arrangements
- ◆ Second source qualifications
- ◆ Conversion from CFE to GFE

Under the best of circumstances, production competition for a major end-item is a complex undertaking. In some instances it is not possible or advantageous to pursue competition for the end item. The program manager must then aggressively pursue other techniques for controlling and reducing costs. Such strategies include:

- ◆ Subcontract competition
- ◆ Component/subsystem breakout

- ◆ Use of the Industrial Modernization Incentive Program
- ◆ Aggressive value engineering program
- ◆ Use of incentive or award fee contracts
- ◆ Should cost analysis of the sole source prime
- ◆ Product improvement of existing item
- ◆ Use of commercial "off-the-shelf" (COTS) and non-developmental items (NDI)

Several detailed references on competition exist, including the Federal Acquisition Regulations (FAR), the DoD supplement to the FAR (DFARS), the Navy supplement to the FAR (NAPS), DoD Directive 5000.1, DoDINST 5000.2, NAVAIRINST 4200.39A w/CH1, and various implementing Navy and NAVAIR instructions, including SECNAVINST 5000.2C and NAVAIRINST 4200.5C. Also helpful are "The Navy Competition Handbook" issued April 1989 by the Competition Advocate General of the Navy in the Office of the ASSTSECNAV, the Defense Systems Management College (DSMC) Handbook "Establishing Competitive Production Sources", DSMC PM Notebook Fact Sheets 3.1.3 and 6.2.2, and the "Naval Aviation Systems Team Competition Handbook" issued May 1994.

Summary: Competition offers substantial benefits. It also entails some risks. Competition planning must be an integral part of the overall acquisition strategy and must be deliberate and thorough as well as tailored to specific characteristics of the program.

POC: For Component Breakout, AIR-4.10E, (301) 757-1812

POC: Competition in contracting,, AIR-2.1.1, (301) 757-6596

CHAPTER XI: KEY TOPICS

PART A: COMPETITION & SOURCE SELECTION

SECTION II: SOURCE SELECTION PLANNING

Purpose: To provide insight into source selection planning considerations.

Discussion: Any source selection begins with a basic planning stage. Initially, a requirement must be identified and funding must be obtained. Requirements may include aircraft, missile, training systems, components, software, technology advancement projects, maintenance and logistics, management training services, or other service contracts, etc. In any case, a strategy for fulfilling the requirement must be developed and the type of source selection to be conducted must be determined. Key personnel need to be identified. A myriad of documentation that justifies and plans the acquisition must be developed and approved. Industrial sources must be identified and polled for input into both the feasibility of the requirement and the strategy for fulfilling the requirement. Ultimately the Request for Proposal (RFP) is developed and released, proposals are received, the evaluation is conducted, the source is selected and the contract is awarded. Below is some insight into source selection planning considerations that will improve your ability of completing these source selection efforts on time.

Initiating RFP development early enough in the process is one of the keys to a successful source selection schedule. Whenever the scheduled release of the RFP is delayed, there is a tendency towards revising the evaluation schedule to avoid a slip in the award date. This reduces the evaluation process time, thereby increasing the risk of a delay in contract award. Innovative source selection strategies may minimize that risk, however there are unknowns in the process such as the number of proposals and the quality of the proposals which tend to be the determining factor in the ability to meet the schedule. The best approach to be used at the start of the process is to plan a low risk schedule by paying particular attention to the details of the RFP development. Careful scrutiny of the Statement of Work/Statement of Objectives (SOW/SOO), the specification, and the Contract Line Item Number (CLIN) structure must be made since these elements of the RFP need to be complete and ready for issue in order to complete the Section M evaluation criteria and the Section L proposal instructions.

The following are some critical milestones and process times to consider in developing a low risk source selection):

- (1) release of a draft RFP to industry for comments;
- (2) Legal Review Board - a 2 week Legal Counsel review of the RFP;
- (3) Source Selection Advisory Council (SSAC) and Source Selection Authority (SSA) Meetings to approve the Source Selection Plan (SSP) and release the RFP - 2 weeks after the legal review;
- (4) RFP release (1-2 days after the SSAC/SSA Meeting) and
- (5) proposal receipt - 45-60 days after RFP release.

Also it should be noted that a low risk schedule should consider a 7 month process time from proposal receipt through contract award. Other milestones that need to be considered in the process include establishment of a technical library for prospective offerors, development of Government Planning estimates, and development of the Evaluation Plan.

Source Selection Office (SSO) personnel can provide valuable insight into the source selection process and can also provide the program team with insight into various acquisition strategies based on lessons learned. The Source Selection Office (SSO), AIR-4.10E should be contacted if it is anticipated that they will be requested to conduct a source selection, SSO personnel may serve as the SSEB Chair and, when so designated, will direct the entire source selection in conjunction with the PCO. Prior to RFP release, SSO personnel will direct the development of the Evaluation Criteria, the Proposal Instructions, the SSP, the Evaluation Plan, and the SSAC / SSA briefings. SSO personnel may also be asked early in the process to be advisors or may be consulted on specific issues at any time even when not participating directly in a source selection. The SSO consists of six Expense Operating Budget (EOB) funded source selection experts and exists as a valuable resource to the Team. However, due to the limited number of people in the SSO it is best to give the SSO Director as much advance warning as possible such that the SSO can properly plan its workload and meet the demands of the Team to the greatest extent possible.

SSO Points of Contact:

Alan Goldberg	Director	757-1810
Bill Basham	Senior Officer	757-1812
Gerry Clarke	Aerospace Engineer	757-1805
Carl Savillo	Aerospace Engineer	757-1808
Kevin Kennedy	Aerospace Engineer	757-1806
Jim Stanford	Aerospace Engineer	757-1807

CHAPTER XI: KEY TOPICS

PART A: COMPETITION & SOURCE SELECTION

SECTION III: PAST PERFORMANCE AND BEST VALUE

Purpose: To provide the NAVAIR position on the use of past performance/systemic improvement and the best value concept in the source selection process.

Discussion: While the lowest price or total cost to the Government is properly the deciding factor in many source selections, the Government may select the source whose proposal offers the best value to the Government based on criteria other than lowest cost or price. Past performance risk assessment is now being used as a tool in the source selection process. NAVAIR has developed a system of evaluating contractor past performance, which is addressed in NAVAIRINST 4200.39A. The objective is to highlight poor performers, hold contractors accountable for their past performance, reduce the Government's overall risk associated with the acquisition, and receive the best value overall for the money spent. Factors to be assessed include areas such as technical, quality, cost, and adherence to established schedules.

It is important to note that the best value concept is not limited only to the use of past performance in the selection process. A best value selection may use a combination of not only performance, but technology, price, and whatever other factors are considered most advantageous to the particular requirement. Its use can conceivably involve complex issues with selections based not only on the above attributes, but on other initiatives as well, such as mobilization capability, security considerations, and enhancement or retention of certain types of socioeconomic sources or domestic production capabilities. The primary consideration should be which offeror can perform the contract in a manner most advantageous to the Government, as determined by the evaluation of proposals according to the established evaluation criteria.

Summary: Planning is key in obtaining the most for the Navy's money. Consideration of past performance risk assessment in source selections should begin as early as possible. When applicable, reference to its intended use should be made in the Acquisition Plan, while the specific clauses for past performance/systemic improvement should be in the Request for Proposals. NAVAIR will continue evaluations to develop the best method of using past performance and other criteria in the source selection process.

POC: AIR-4.10E, (301) 757-1812

CHAPTER XI: KEY TOPICS

PART B: ALPHA ACQUISITION

Purpose: Alpha Acquisition is a concurrent versus serial approach which involves the integration of the Program/Project/Acquisition Manager (PM/AM), the Contracting Officer, the Contractor, the Defense Contract Audit Agency (DCAA), the Defense Contract Management Agency (DCMA), various field activities, and AIR-4.2 cost estimators into a cohesive team. The common goal is to acquire high quality goods and/or services for the Government in an expedited and efficient manner and at a fair and reasonable price.

Discussion: With Alpha Acquisition, Government and contractor personnel are included in the acquisition process from the inception of the requirement. In order to accelerate the time it takes to award a contract once a requirement is known, the Integrated Program (Product) Team (IPT) goes to the Contractor's plant, where they work hand-in-hand with the contractor, DCAA, DCMA, and other units as necessary (i.e., DCMA Quality Engineers). It has been NAVAIR's experience that for major procurements (exceeding \$100M), this process reduces to approximately four months the time it takes from agreement on the Statement of Work (SOW) until contract award. Development of the SOW and specification, which normally take about 126 days, is reduced by as much as 52 days (for consolidating responses, formal Command review, data review board, and delivery of a Procurement Initiation Document (PID) to AIR-2.0). Duplication is also eliminated from the procurement process because contractor personnel are involved in the design, manufacturing and software development decisions of the RFP, if applicable, to the instant contract. Therefore, government research of, and response, to contractor issues are all resolved during the development of the SOW and specification. These participants take ownership of the acquisition process from the beginning and become a Joint Industry/Government Team with a common purpose.

The benefits of the use of Alpha Acquisition practices are reduced procurement acquisition lead times and also reduced costs. By including the DCAA and DCMA in the proposal preparation process their audits and technical evaluations can be completed more quickly since the need for follow-up audits and evaluations (generally driven by proposal updates) will be eliminated. The contractor benefits by significantly reducing proposal preparation costs.

Alpha Acquisition is a framework for expediting the acquisition process. The purpose is to eliminate any unnecessary processes and reviews, and to streamline and conduct the required ones in parallel. Nevertheless, the same issues addressed in standard procurements are addressed in Alpha Acquisition, the same questions asked, and the same support provided. However, it is all done much more quickly and started earlier in the process.

Alpha Acquisition is a labor-intensive process. For each such procurement, the IPT members may be away from the office for as much as 50 percent of the time over a period as long as a month of the total contracting time. Therefore, before deciding to use the ALPHA approach, the IPT leader should consider:

- ◆ While the members of the IPT are away from the office on this one procurement, how will the other program work be handled?
- ◆ Should there be specific criteria used to determine whether such a labor-intensive method is worthwhile (i.e., dollar threshold, higher level interest, funding jeopardy, degree of trust between the parties, etc.)?
- ◆ What opportunities exist for use of Video-teleconferencing versus travel?

Pre-requisites for Alpha Acquisition are:

- ◆ Good draft SOW with defined requirement.
- ◆ SOW, proposal, and business clearance spreadsheet, in accordance with Work Breakdown Structure (WBS).
- ◆ Contractor and Government negotiating teams use the same spreadsheet format and software version to facilitate negotiations and documentation.

- ◆ Team commitment to use of Alpha Acquisition practices throughout the acquisition process.
- ◆ COMMUNICATION, COMMUNICATION, COMMUNICATION
- ◆ A sample Alpha Acquisition approach for the Engineering and Manufacturing Development Phase and a sample Memorandum of Agreement for the Production Phase immediately follow this section.

POC: AIR-2.1, (301) 757-7853

SAMPLE ALPHA ACQUISITION APPROACH FOR E&MD

Alpha Acquisition is a concurrent versus serial process, both within the Government team and with the contractor team. The following is a **sample** approach that has been used for a development program . These steps should be tailored or, in some cases, eliminated (if the same technical requirement as the last procurement is to be used, then many of the following technical/Class Desk steps will be inapplicable) to fit the circumstances of the individual procurement:

- I. Procurement Planning Conference to develop understanding of requirements
- II. Formation of the “Alpha” Team:
 - Involve Team in all aspects of pre-procurement planning
 - Develop government technical review team
 - NAVAIR/DCMA/etc.
 - Develop government cost/price review team
 - Investigate available areas of expertise
 - Naval Aviation Warfare Centers (NAWC’s)
 - Establish relationship and open dialog with Field support agencies
 - EARLY INVOLVEMENT
- III. Good DRAFT SOW with defined requirement
- IV. Preliminary (realistic) schedule
- V. ROM of budget parameters (forces contractor to propose creative solutions)
- VI. Periodic (i.e., weekly, biweekly) team meetings to discuss status/evolution of requirements.

PRE-RFP

- ◆ Conduct discussions with contractor to finalize a SOW and assure commitment on defined requirements
- ◆ Good up-front systems engineering
- ◆ Establish SOW based on WBS format
- ◆ Assign proposal review responsibilities to Government teams
- ◆ Establish proposal review process
- ◆ As part of the negotiation team, DCMA conducts a thorough RFP review before issuance of the RFP
- ◆ Develop coordinated (gov’t/contractor/DCMA/DCAA) acquisition schedule the team will use to track its success
- ◆ Draft RFP, if necessary
- ◆ Advanced discussions on terms and conditions

RFP THROUGH PROPOSAL SUBMISSION

- ◆ Issue RFP which incorporates developed SOW, schedule, and format
- ◆ Government involvement in Contractor’s ground rules meeting
- ◆ Commence review and audit of proposal sections as they are written
- ◆ Technical review team assembled on-site under the control of the IPT for on-going “fact-finding” during proposal drafting
- ◆ Contractor establish an on-site focal point for technical and contractual issues
- ◆ All team players available when required to discuss issues
- ◆ Document fact finding results throughout for use in field pricing report

PROPOSAL SUBMISSION AND REVIEW

- ◆ Proposal delivered directly to review activities for initial review
 - ◆ Proposal review should largely be a formality, as Team reviewed proposal sections as they were completed
 - ◆ All technical questions processed through IPT
 - ◆ Conduct joint technical and cost reviews
 - ◆ Written RFP questions to contractor (should be minimal) require written responses
- *Only questionable responses require face-to-face meetings

NEGOTIATIONS

- ◆ The contractor's contracting officer and cost support members available at same location as PCO/contract specialist
- ◆ Only specific IPT members (i.e., PCO/contract specialist/technical team leader) are present during formal negotiations with contractor
- ◆ Technical Sub-team leaders available on both sides to resolve any outstanding issues and fine tune technical requirements
- ◆ Standard spreadsheet becomes exhibit in the business clearance

SAMPLE MOA AS AN ALPHA ACQUISITION APPROACH FOR PRODUCTION

Whereas our goal is to continue streamlining the acquisition process through the implementation of “Alpha Acquisition” and the Greater use of the Integrated Program (Product) Teams, and whereas our goal is to establish a milestone schedule in order to accomplish an award not later than _____, and whereas the parties (Contractor Navy, DCAA, DCMA and NAVAIR (as applicable)) agree that this MOA establishes the objectives and assumptions to be used in this process, therefore the parties agree as follows.

I. The objectives are as follows:

- Improve the quality of the price and delivery proposal
- Increase understanding of the contractor’s estimating, price, and delivery proposal methodology
- Reduce the time required for discussions by conducting real time discussions of the cost elements of the proposal as they are completed
- Reduce the time required for Government technical evaluation by completing technical evaluations as the elements of the proposal are prepared
- Research consensus on contract terms and conditions early in the evaluation process
- Continue to pursue affordability initiatives to lower the cost

II. The proposed Process and Advantages are summarized as follows:

Proposed Process

- Mutual agreement of this MOA
- (Contractor name) provided with draft RFP for comment and discussion of terms and conditions
- Develop proposal evaluation milestones and schedule
- Formal request for proposal issued
- NAVAIR Pre-Negotiation Business Clearance (may be verbal presentation)
- Individual cost elements submitted as they are completed
- Fact-finding and discussions conducted between all parties (contractor name, DCMA, DCAA, and NAVAIR (as applicable)) according to the milestone schedule
- Frequent team meetings are held to review and understand estimates and proposal methodology as positions are developed and data is compiled for target, minimum and maximum quantities (if applicable). Consensus on estimating methodology shall be reached to the maximum extent possible.
- Negotiation and Agreement on cost elements during the above process
- Submittal of profit initiative
- Agreement on profit
- Requirements finalized
- Submittal of proposal documenting agreements achieved for requirement
- Settlement with (name of contractor)
- (Contractor name) post negotiation “sweep” of current cost data
- NAVAIR post-negotiation clearance
- Award of contract

Advantages

- (Contractor’s name) proposal will correlate with the NAVAIR/(contractor name) agreed-to requirements
- Real-time discussions will identify and resolve issues early in the process and eliminate wasted effort
- NAVAIR/(Ktr name)/ DCAA/DCMA will attend same fact-finding/discussion meetings thereby eliminating the duplication of time and effort associated with multiple reviews
- Preliminary discussions and evaluations will be performed as estimating and proposal methodologies are developed thereby reducing formal fact-finding and negotiation time
- Government and (Ktr name) team members will develop a better understanding of the requirements, estimating methodology, price and delivery proposal process.

III. The assumptions and guidelines are as follows:

- This acquisition streamlining effort must be coordinated with the following:

<u>Organization</u>	<u>PCO</u>
NAVAIR	(NAME), PCO
(Contractor Name)	(NAME), Contracts and Pricing
DCMA/(Location)	(NAME), ACO
DCAA/(Location)	(NAME), Resident Auditor

- All correspondence between NAVAIR and (contractor name) shall be sent through (Name), (Contractor name) Contracts and Pricing, and (Name), PCO. Copies shall be sent to (Name), ACO, DCMA (location), and (Name), DCAA/(location).
- (Contractor name) shall have full responsibility to prepare the price and delivery proposal. The Government’s role is to gain understanding of the proposal process and conduct “real-time” discussions with the objective of increasing the quality of the technical and cost evaluation while expediting the overall acquisition process. In turn, the Government will provide (contractor name) with the “real-time” information concerning non-restricted Government audits in order to gain an understanding of the Government position.
- DCAA auditors will maintain their independence from (contractor name’s) price and delivery proposal process. As (contractor name) presents various sections of the proposal, DCAA may attend for informational purposes only.
- The (contractor name)/NAVAIR/DCMA team will discuss and evaluate the methodologies as they are developed in accordance with the attached milestone schedule. Any agreements reached are preliminary in nature and subject to appropriate (contractor name) and NAVAIR management review. Nothing in this agreement will prohibit (contractor name)’s rights and flexibility in the areas of proposal preparation, estimating methodology, or any other contracting aspect. Nothing in this agreement will limit the audit scope on the part of DCAA. In addition, nothing in this streamlining initiative shall be used to circumvent or bypass Government laws, regulations, or the NAVAIR Business Clearance process. The contractor is still responsible for providing current, accurate, and complete cost and pricing data in the final price, and the delivery process shall be certified to the cut-off date agreed to in the milestone schedule. The proposal remains (contractor name)’s responsibility and must be certified.
- (If applicable) The attached schedule is part of this MOA and includes proposal milestones, schedules, and certification cut-off dates. Any revisions to the schedule shall be mutually agreed upon prior to incorporation.
- Key dedicated members of (program/project identification) teams are identified in the attached list and will be responsible for obtaining any support needed.

- NAVAIR and (contractor name) will work together to establish ways to accelerate the phase book process. It is recognized that NAVAIR/(Contractor name) supplier field audits are critical to reducing the proposal evaluation cycle. Therefore, every attempt will be made to reduce the turnaround time to 30 days (or any more appropriate time for procurement in question) from the date of request. In addition, issues will be identified in real-time prior to completion of audits to facilitate timely resolution solution.
- The NAVAIR team will coordinate activities with the objective of reducing/eliminating duplicative evaluation efforts.

CHAPTER XI: KEY TOPICS

PART C: ADVISORY AND ASSISTANCE SERVICES

Source Documentation:

OMB Circular Number A-11 of 27 May 2003

DoD FMR 7000.14R Volume 2b (Chapter 19)

FAR Subpart 37.2

SECNAVINST 4200.31C of 22 Jun 93, Subj: Acquiring and Managing Consulting Services

AIR-7.6 memo 7000 Ser AIR-7.6.2.1/290 of 9 Dec 99

NAVAIR ltr 7000 Ser AIR-7.6.3CM/98-027 of 17 Jun 98

Definition: Advisory and Assistance Services (A&AS), previously referred to as Consulting Services, Contracted Advisory and Assistance Services, and Contractor Support Services, are advisory and assistance services procured by contract from non-government sources to: a) support and improve organizational policy development, decision making, management, and administration; b) support program or project management and administration; c) provide management and support services for R&D activities; d) provide engineering and technical support services; or e) improve the effectiveness of management processes and procedures.

Discussion: A&AS is identified as object classification 25.1 in the PB-15 budget exhibit. The PMA/RFM is responsible for planning, budgeting, accounting, and reporting A&AS, which are procured by a Working Capital Fund (WCF) activity (in support of his/her customer order). WCF activities are only responsible for A&AS associated with overhead (i.e., indirect) function. Funds issued for A&AS must continue to cite object classification code 25.1, the appropriate A&AS work breakdown structure (WBS) element in the line of accounting (LOA), and a separate accounting classification reference number/LOA/billing element for each A&AS category. Under SIGMA, the material group chosen will automatically generate the object classification code in the LOA and the general ledger code fields. Therefore, it is imperative that Fund Centers select the appropriate material group when creating their purchase requisitions to ensure that A&AS requirements, as well as other non-A&AS contracts (e.g., object classification codes 25.2, 25.5, etc.) are reported accurately. For the three A&AS categories, studies, analysis and evaluations (SAE); management and professional support services (MSS); and engineering and technical services (ETS); the material groups are 0546, 0547, and 0548 respectively and these codes will in turn populate the appropriate general ledger code fields (i.e., 6100.4252 for SAE, 6100.4254 for MSS, and 6100.4256 for ETS) that are reviewed by each AIR-10.0 analyst. In addition, appropriate A&AS WBS elements must be established in each Fund Center's Budget Structure (for NAVAIR headquarters) to ensure these requirements can be planned, executed, and tracked properly in SIGMA. Regardless of whether funds are accepted on a reimbursable or direct citation basis, A&AS efforts are always identified by object classification code 25.1. For *all* of the above services, Fund Centers must ensure that the proper material group is being used and the applicable smart sourcing reference number is cited on every purchase requisition and PID/PR in SIGMA. Activities that receive operating budgets, technical operating budgets, or expense operating budgets will continue to receive A&AS authority in the same way (i.e., specified in a not-to-exceed amount on the allocation) and will report A&AS obligation to AIR-10.1.3 on a monthly basis.

Categories: Advisory and Assistance Services are comprised of three categories, which are described below:

a. Management and Professional Support Services (MSS): Contracted services, usually closely related to the basic responsibilities and mission of the agency contracting the function, that provide assistance, advice, or training for the efficient and effective management and operation of organizations, activities (including management, scientific, and engineering support services for R&D activities) or systems. Examples of MSS services include:

- 1) efforts that support or contribute to the improved organization of program management, logistics management, project monitoring and reporting, data collection, budgeting, accounting, auditing, and technical support for conferences and training programs;
- 2) services to review and assess existing managerial policies and organizations;
- 3) development of alternative procedures, organizations, and policies; and
- 4) examination of alternative applications and adaptations of existing or developing technologies.

b. Studies, Analyses, and Evaluations (SAE): Contracted services that provide organized, analytic assessment/evaluations in support of policy development, decision making, management, or administration. Includes studies in support of R&D activities and obligations for models, methodologies, and related software supporting studies, analyses, or evaluations. Examples of SAE services include:

- 1) analysis of alternatives (previously referred to as cost, benefit, or effectiveness analyses) of concepts, plans, tactics, forces, systems, policies, personnel management methods, and programs;
- 2) studies specifying the application of information technology and other information resources to support mission and objectives;
- 3) technology assessments and management and operations research studies in support of R&D objectives;
- 4) evaluations of foreign force and equipment capabilities, foreign threats, net assessments, and geopolitical subjects;
- 5) analyses of material, personnel, logistics, and management systems; and
- 6) environmental impact statements.

c. Engineering and Technical Services (ETS): Contractual services used to support program offices during the acquisition cycle. Efforts include systems engineering and technical direction (as defined in FAR 9.505-1(b)) required to ensure the effective operation and maintenance of weapons systems or major systems (as defined by OMB Circular No. A-109) or to provide direct support of a weapons system that is essential to R&D, production, or maintenance of the system. Examples of ETS services include:

- 1) determine system performance specifications;
- 2) identify and resolve interface problems;
- 3) develop test requirements, evaluate test data, and oversee test design; and
- 4) develop work statements, determine parameters, oversee other contractor's operations, and resolve technical controversies.

Funding. Funding for A&AS efforts should be consistent with the appropriation sought to be charged. Specifically, RDT&E may fund A&AS efforts when integral to the technical execution of the R&D project; procurement accounts may fund A&AS efforts directly related to the support of the system being produced; and O&M,N funds A&AS efforts for out-of-production and in-service systems/equipment and A&AS in direct support of NAVAIR headquarters management functions, systems project offices, and acquisition managers.

POC:. AIR-10.3, (301) 757-7807 (Policy)
AIR-10.3, (301) 757-7781(PB-15 Budget Exhibit)

CHAPTER XI: KEY TOPICS

PART D: STATEMENT OF WORK (SOW)/STATEMENT OF OBJECTIVES (SOO)

Source Documentation:

MIL-HDBK-245D, Preparation of Statement of Work (SOW)

MIL-HDBK-881, Work Breakdown Structure

MIL-HDBK-248B, Acquisition Streamlining

Federal Acquisition Regulations/Defense Federal Acquisition Regulations (**FAR/DFAR**)

Purpose: The Statement of Work should specify in clear and understandable terms the work to be performed in developing or producing goods to be delivered or services to be performed by a contractor. It should provide a consistent, orderly and complete description of the work required. Preparation of an effective Statement of Work requires both an understanding of the goods or services that are needed to satisfy a particular requirement and an ability to define what is required in specific, performance based qualitative terms. It is essential that the person preparing the SOW understand the design concept of the deliverable product and/or the scope of the services to be performed. A SOW prepared in explicit terms will enable offerors to clearly understand the government's needs. This facilitates the preparation of responsive proposals and delivery of the required goods or services. A well-written SOW also aids the Government in conduct of the source selection and contract administration after award. A Data Requirements Review Board (DRRB) may review each SOW to ensure compliance with the policy, guidance and procedures contained in MIL-HDBK-245D.

Guidance: Prior to the formulation of the (PID), the SOW should be prepared by the Integrated Program Team (IPT), and coordinated with the Program Manager. The PM has overall responsibility for the preparation, review and approval of the SOW. The SOW preparation begins with the review of the Capability Development Document (CDD), and other appropriate planning documents, such as the Systems Engineering Management Plan (SEMP), Acquisition Plan, Acquisition Logistics Support Plan (ALSP), Work Breakdown Structure (WBS), and the specification. Every effort to describe the work with some degree of precision should be made so that the parties will not only have an understanding of what is expected, but the contract itself will not be rendered invalid for vagueness. NAVAIRINST 4120.9A (draft) addresses preparation of program unique specifications for NAVAIR programs.

The PM should address the preparation of the WBS, SOW, and CDRLs at the Procurement Planning Conference (PPC) with the IPT functional representatives present. Each IPT must make every effort to adequately describe the work task so that the contractor will have a clear understanding of what is expected. These documents should be consistent with the requirements stated in other acquisition documentation.

After contract award, the SOW becomes the standard for measuring the contractor's effectiveness. The contractor will refer to the SOW to determine his rights and obligations with regard to work tasks. A clearly defined scope of effort will enhance the legal supportability, if the need arises. Therefore it is imperative to apply the following rules when writing a SOW:

DO'S

- ◆ Use the WBS to outline the required work effort.
- ◆ Express the work to be accomplished in work terms.
- ◆ Explicitly define the tailored limitations of applicable documents.
- ◆ Use shall whenever a provision is mandatory.
- ◆ Use will only to express a declaration of purpose.
- ◆ State what needs to be accomplished, NOT HOW.
- ◆ Exclude design control or hardware performance.
- ◆ Identify either CDRL number or DID number in parentheses at end of a SOW paragraph when data is to be developed/delivered.

DON'TS

- ◆ Do not develop data content or data delivery schedules in the SOW. The DID describes the data content and format, and the CDRL orders the specific delivery times.
- ◆ Do not include proposal criteria
- ◆ Do not include instructions to the contractor
- ◆ Do not include qualifications of contractor personnel
- ◆ Do not include conditions of Security or clearance
- ◆ Do not discuss contract clauses.
- ◆ Do not amend contract specifications.
- ◆ Do not invoke entire applicable documents unless needed to meet minimal need.

Purpose: A Statement of Objectives (SOO) is an option provided by MIL-HDBK-245D which can be used instead of a SOW. The **SOO** expresses the basic, top-level objectives of the acquisition and is provided in the PID/solicitation in lieu of a government-written SOW. This approach gives Offers the flexibility to develop cost-effective solutions with the opportunity to propose innovative alternatives that meet those objectives.

Guidance: The SOO is a government-prepared document, usually two to four pages, incorporated into the PID/solicitation that states the overall solicitation objectives and request that the Offers provide a SOW in their proposals. The SOO may be included as an attachment to the solicitation, listed in Section J, or referenced in Section L and/or M. The SOO does not become part of the contract. Instructions for the contractor prepared SOW should be included in Section L. This is a fundamental part of the solicitation development with major impacts to Sections L and M. The following provides the conceptual process for developing the SOO.

The IPT team develops a set of objectives compatible with the overall program direction including the following:

- a. The user(s) Capability Development Document (CDD)
- b. Program Initial Capabilities Document (ICD)
- c. Draft technical requirements (system spec), and
- d. A draft WBS and dictionary

Once the program objectives are defined, they will need to be focused so that the SOO addresses product-oriented goals rather than performance requirements. The SOO is replaced at contract award by the proposed SOW.

Lessons Learned: The SOW/SOO developer should:

- ◆ know the contract/program detailed requirements
- ◆ research the applicable regulations, policies and procedures
- ◆ know that the SOW is not a miscellaneous catch-all document
- ◆ know that a SOW is a requirements document representing work needs
- ◆ know that technical performance requirements (specification) should not be in the SOW
- ◆ know that the SOW task may result in the generation of data, and that the task should not directly address the preparation of data, and know that Block 5 of the CDRL must reference the correct SOW paragraph that describes the performance based work effort that results in the data being developed and delivered.

For additional information, please visit website at: <http://www.navair.navy.mil/air10/air11>

Available Training Course:

- Writing Performance Based Statements of Work (listed under the Procurement & Contracting tab)
- Writing Better Performance Statements of Work (listed under the DAWIA Continuous Learning tab)

POC: Each respective PMA APMSE (Class Desk) or Competency designated subject expert.

Preceding Process

- Establish & Maintain Cost Reporting & Mgmt Control Requirements

Inputs [Suppliers]

- Assess Project EVM Feas.
- Contract/Program [PMA, AIR-6.0]
 - Resources [TEAM Site, AIR-00, (Staffing/Funding) PMA, AIR-4.2, AIR-6.0]
- Assess Current Mgmt Sys. Implementation
- Legacy Systems [TEAM Site] (The accounting system is key)
- Implement EVMS [TEAM Site, AIR-00, PMA, AIR-4.2, AIR-6.0]
- Resources (Staffing/Funding)
- Use EVMS [PMA, AIR-6.0]
- Schedule [PMA, AIR-6.0]
 - Work Authorization [TEAM Site, PMA, AIR-6.0, AIR-4.2]
 - Surveillance Plan/Metrics /Reports
- Maintain EVMS [TEAM Site, PMA, AIR-6.0, AIR-4.2]
- Surveillance Plan/Metrics

Entry Criteria

- Product focused project greater than \$6M (\$FY96) and more than 12 months in duration
- OR
- TEAM Site/Customer decides effort is appropriate for EVM

Handbooks, Standards, Limits

- DoDI 5000.2-R, SECNAVINST 5000.2B
- NAVAIR Acquisition Guide
- AIR-00/PEO letter dtd 24 April 1996 (subject: Managing with Earned Value at NAVAIR TEAM Sites)
- WBS for Defense Material Items (MIL-HDBK-881B)
- Earned Value Management Guide (NAVSO P3627)
- TEAM Site Earned Value Handbook (To be Developed)

Perform TEAM Site Earned Value Management

Purpose

This process is the performance of TEAM Site Earned Value Management (EVM) which will provide a common framework for the communication of a program cost, schedule, and technical performance. EVM requires an activity to plan, budget, and schedule the work in time-phased increments; and enables a comparison of the work accomplished versus the total authorized cost and schedule requirements. EVM allows for better planning, carry over visibility, and aids in the defense of program budgets.

Primary sub-processes

- Assess project EVM feasibility
- Assess current management system implementation
 - Determine management system changes needed
 - Evaluate resource requirements
 - Develop Plan of Action and Milestones (POA&M)
- Implement Earned Value Management System (EVMS)
 - Acquire EVMS expertise needed
 - Integrate/modify processes/systems
 - Train personnel
 - Conduct EVMS Assessment Review
- Use EVMS
 - Establish EVM reporting requirements
 - Manage project execution
- Maintain EVMS
 - Conduct surveillance program
 - Improve/evolve system

Supporting sub-processes

- Train Workforce
- Perform Resource Management

Agents

- PMA
- Cost Department (AIR-4.2)
- TEAM Site
- AIR-6.0
- AIR-00

Tools

- Software (MS Project, PA, Winsight, Dekker Trakker)
- Legacy Systems
- Migration Systems (e.g., BAIM, NIFMS)

Metrics and Measures (Initial)

- Turn Around Time to Plan
- Customer Satisfaction
- Overhead Rate Change
- Cost Performance Index (CPI)
- Schedule Performance Index
- Variance at Completion Percentage
- To Complete Performance Index to CPI
- Time to Implement EVMS
- Baseline Changes (other than contract scope)

05/21/97

Next Process

- Assess Site's Cost/Schedule/ Technical Performance

Outputs [Customers]

- Assess Project EVM Feas.
- Feasibility Study Results [TEAM Site, PMA, AIR-4.2, AIR-6.0]
- Assess Current Mgmt System Implementation
- POA&M [TEAM Site, PMA, AIR-6.0, AIR-4.2]
- Implement EVMS
- EVMS [TEAM Site, PMA, AIR-6.0, AIR-4.2]
 - EVMS Description [TEAM Site, AIR-4.2]
- Use EVMS
- Cost Reports (CPR/C/SSR) [TEAM Site, PMA, AIR-4.2, AIR-6.0]
 - EVMS/Corporate Metrics [TEAM Site, PMA, AIR-4.2, AIR-6.0]
 - Data for Workload Planning System [PMA/AIR-6.0]
 - Schedules [TEAM Site]
 - Work Authorization [TEAM Site]
 - Control Acct. Plans [TEAM Site]
- Maintain EVMS
- Surveillance Reports [TEAM Site, PMA, AIR-6.0, AIR-4.2]

Exit Criteria

- Contract/program complete at site
- OR
- EVM determined to be infeasible

CHAPTER XI: KEY TOPICS

PART E: EARNED VALUE MANAGEMENT

Discussion:

Earned Value Management (EVM) is a systematic approach that integrates the various management subsystems. An EVM System incorporates best business practices that impact all of an organization's subsystems needed to manage a project. After the management processes are in place, EVM will provide project managers with a Risk Management tool that integrates work scope, schedule, and cost objectives to provide performance data. Implementation of EVM should be done on projects that are over twelve months in duration, non-level of effort type work, and over \$6M. In general EVM is not implemented on Firm Fixed Price efforts; however, if the program manager believes there is sufficient risk they may choose to require using EVM. The main deliverable report from contractors for EVM is the Cost Performance Report.

See Flow Chart on next page

For further information or assistance in developing contract requirements contact the following:

POC: AIR-4.2.6, room 3143 Building 2185, (301) 342-2394.

CHAPTER XI: KEY TOPICS

PART F: ACQUISITION LOGISTICS SUPPORT

SECTION I – INDEPENDENT LOGISTICS ASSESSMENT PROCESS

Purpose: The Independent Logistics Assessment (ILA) Branch (AIR-3.1E), which is a product support team, conducts integrated acquisition logistics (AL) assessments on ACAT I through IV programs for the NAVAIR team. The purpose of the assessment is to identify logistics risks associated with the program and recommend the adequacy of the program's Logistics planning, management, and execution. The assessments are accomplished on a schedule, which supports each acquisition decision milestone and initial as well as full operational capability.

Source Documents: SECNAVINST 4105.1 of 30 May 1996 and the ILA web site at <https://www.nalda.navy.mil/3.6.1/ila/>

Responsibility: AIR-3.1E, in concert with the APML, IPT and competency members, is responsible for ensuring that each NAVAIR acquisition program is assessed for identification of logistics risks and the adequacy of the logistics program. The ILA assessment schedule is on the ILA web site. Additional tools are found on the web site, including the ILA guidebook. The ILA guidebook is a checklist that focuses on logistics products or efforts that may be appropriate for each milestone.

Assessment Initiation: The ILA product support team will establish contact with the PMA, IPT leader, APML, etc., to explain the ILA philosophy/process, which is to provide early and continuous involvement, and work with the IPT to resolve logistics issues as they arise. The ILA team members will seek out the program IPT leader to set up schedules to meet and work with the IPTs.

The Assessment: The assessment team seeks to ensure all aspects of the Logistics program are adequately analyzed during program development. The ILA team works with IPT members up front, early and consistent with important program events to build a better program. The planned logistics efforts are analyzed for completeness and applicability. The ILA team will also recommend how to incorporate the policy requirements and programmatic issues into the milestone documentation and the PMA's program plans. The ILA team will work with the IPTs to identify what logistics efforts and milestone and programmatic documentation is applicable through the tailoring-in process. The ILA team, with the input of subject matter experts, will work with the IPTs to recommend and influence program goals and logistics readiness objectives and thresholds, make recommendations on specific policy to be complied with, as well as best practices and techniques to be applied. The ILA team works with the IPT to resolve or mitigate any and all logistics risks to the program identified through the ILA process. Critical or unresolved risks are raised to the appropriate IPT and competency management for resolution.

Independent Logistics Assessment (ILA) Board: Each assessment is presented to AIR-3.1 and AIR-3.1A as chairpersons of the ILA board for discussion and recommendation for signature by AIR-3.0. This process, between the APML and appropriate IPT membership, the ILA members and chaired by AIR-3.1 and AIR-3.1A ensures that all issues and risk mitigation efforts are appropriate and have been agreed to and that the assessment is thorough and complete.

Certification: Once all issues are resolved or mitigation efforts accepted for identified risks, the ILA will recommend certifying to the PEO, PMA, APEO(L), IPT leader, and the APML that the program is supportable. The certification recommendation letter is prepared for AIR-3.0 signature, and addressed to the appropriate PEO. The certification is approved by the PEO. The certification recommendation is in accordance with the Logistics certification criteria presented in enclosure (1) of SECNAVINST 4105.1.

POC: AIR-3.1E, (301) 757-3085

CHAPTER XI: KEY TOPICS

PART F: INTEGRATED LOGISTICS

SECTION II - LOGISTICS REQUIREMENTS FUNDING SUMMARY (LRFS)

Purpose: The LRFS is a means for the Acquisition Program Manager for Logistics/Logistics Element Manager to identify a program's Supportability requirements by relevant appropriation, in one document, based on the current Future Years Defense Program (FYDP).

Source Documentation: Interim Defense Acquisition Guidebook (formerly DoD 5000.2-R)

Discussion: The acquisition of a system or equipment involves not only the procurement of hardware, but also the determination of required funds to establish and implement a Supportability program. The LRFS documents the support funding required for each acquisition program. The main objectives of the LRFS are to:

- a. Provide visibility of support requirements.
- b. Inform resource and assessment sponsors of support requirements.
- c. Serve as the format for presentation of support and associated funding requirements at all acquisition milestone decision forums.
- d. Satisfy requirements of existing policy to plan for and document supportability requirements and associated funding.

The LRFS is the consolidated "requirements" baseline format to be used by Logistics Managers (LMs) and Program Managers (PMs) to identify the Supportability related costs and funding. The LRFS requirements must be based on program phasing and relevant logistics determinants such as critical program decisions, and other items or issues which directly affect logistics support of the planned acquisition of the weapon system. Based on this, the following information should be considered:

- a. Procurement Schedules
- b. Delivery Schedules
- c. Site Activation and Installation Schedules
- d. Peacetime and Wartime Utilization Factors
- e. Readiness and Sustainability Thresholds
- f. Operational Availability (Ao)
- g. Operational Requirements
- h. Mission Capability (MC) Rate
- i. Support Activation /Transition Organic Support
- j. Contractual Vehicles
- k. Mean-Time -To-Repair (MTTR)
- l. Mean-Time-Between-Failures (MTBF)

Programmatic changes that have an impact on the above factors require analyses and a possible revision to the LRFS. The LRFS, when developed at program initiation, occurs with the development of other management tools such as the Acquisition Logistics Support Plan (ALSP) and various conceptual designs, analyses, and studies. The Operational Requirements Document (ORD), Test and Evaluation Master Plan (TEMP), and other key documents provide the foundation for the entire support planning function. The ALSP represents the plan to acquire and deliver the necessary support that has been outlined by the basic program requirements documents. The LRFS is directly derived from the ALSP, reflecting the resources necessary to fully execute the end item program, and must be updated to remain consistent with the evolving Supportability program.

POC: AIR-3.1F, 301-757-8317

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PART F: INTEGRATED LOGISTICS

SECTION III: ACQUISITION LOGISTICS SUPPORT PLAN (ALSP)

The Acquisition Logistics Support Plan (ALSP) is used to establish, document, and maintain program Acquisition Logistics Support. The development of the ALSP for NAVAIR logistics programs also, provides planning information for the PMA/IPT in using, managing, and planning support for aviation weapon systems and equipment. The ALSP is not limited to a specific format but the ALSP shall be used to establish, document and maintain program Acquisition Logistics Support.

The POC: AIR-3.1F1, 301-757-8233

mailto: Behrensd@navair.navy.mil

Additional information can be found on the ALSP web site at: <http://www.nalda.navy.mil/3.6.1/alsp.html>

CHAPTER XI: KEY TOPICS

PART F: INTEGRATED LOGISTICS

SECTION IV: ACQUISITION LOGISTICS HANDBOOK (ALH)

Purpose: MIL-HDBK-502 DoD Acquisition Logistics Handbook (ALH) offers guidance on acquisition logistics as an integral part of the systems engineering process. It provides general guidance to members of the DoD workforce directly concerned with the supportability of material systems or automated information systems.

Source Documents:

Interim Defense Acquisition Guidebook (formerly DoD 5000.2) Mandatory Procedures for Major Defense Acquisition Programs and Major Automated Information

System Acquisition Programs

MIL-HDBK-502 DoD Acquisition Logistics Handbook

MIL-PRF-49506 Performance Specification Logistics Management Information

DI-ALSS-81529 Logistics Management Information Data Products

DI-ALSS-81530 Logistics Management Information Summaries

NAVAIR Contracting for Supportability Guide

Defense Systems Management College Acquisition Logistics Guide

Discussion: Acquisition Logistics is a multi-functional, technical management discipline associated with the design, development, test, production, fielding, sustainment, and improvement/modification of cost-effective systems that achieve the user's peacetime and wartime readiness requirements. The principal objectives of acquisition logistics are to ensure that support considerations are an integral part of the system's design requirements, that the system can be cost-effectively supported throughout its life-cycle, and that the infrastructure elements necessary for the initial fielding and operational support of the system are identified, developed and acquired. The majority of a system's life-cycle costs can be attributed directly to operations and support costs once the system is fielded. Because these costs are largely determined early in the system development period, it is vitally important that system developers evaluate the potential operational and support costs of alternative designs and factor these into early design decisions. Supportability considerations shall be integral to all trade-off decisions.

The ALH was developed by the joint services technical working group under the direction of the Office of the Deputy Undersecretary of Defense for Logistics. It is the replacement document for MIL-STD-1388-1A Logistics Support Analysis (LSA) and may be used on all new and major modifications to acquisition systems/equipment. This handbook is for guidance only and cannot be cited in a contract as a requirement. Included in this handbook are the following areas of interest:

- How systems engineering fits into the acquisition process.
- Supportability analyses as part of the systems engineering process.
- How to develop supportability requirements.
- The acquisition and generation of support data.
- Logistics considerations for contracts.
- The logistician's role on integrated product teams.
- Samples of Supportability Analysis Summaries (SAS).
- Samples of LMI Worksheet 1 – Supportability Analysis Summaries.
- Samples of LMI Worksheet 2 – Data Products Deliverables.

The acquisition logistics activities normally encompass the following support elements identified below:

- Maintenance Planning. Planning required to evolve and establish maintenance concepts and requirements for the lifetime of the system. Because of the impacts on systems design and the long term operations and support cost implications, a cost-effective support concept needs to be established early in the program after careful consideration of all viable alternatives and refined concurrently with the design effort into detailed maintenance plans.

- Manpower and Personnel. Military and civilian personnel with the skills and grades required to operate and support the system over its lifetime at peacetime and wartime rates. Program managers should strive to minimize the quantity of personnel and the skill levels required to operate and maintain systems.
- Supply Support. Secondary items necessary to field and support the system including consumables, repair parts, and spares.
- Support Equipment. All equipment required to support the operation and maintenance of the system. This includes associated multi-use end items, ground handling and maintenance equipment, tools, metrology and calibration equipment, test equipment, and automatic test systems. This includes automatic test equipment hardware and operating system software, test program sets that include the interface test adapter hardware, and software programs to test individual weapon electronic items, and the associated software development environments and interfaces.
- Technical Manuals and Technical Data. Scientific or technical information recorded in any form or medium (such as manuals and drawings). Computer programs and related software are not technical data, whereas the documentation of computer programs and related software is technical data. Also excluded are financial data or other information related to contract administration.
- Training and Training Devices. Processes, procedures, techniques, training devices, and equipment used to train civilian and active duty and reserve military personnel to operate and support the system. This includes individual and crew training (both initial and continuation) and new equipment training – initial, formal, and on-the-job training.
- Computer Resources Support. Facilities, hardware, system software, software development and support tools, documentation, automatic test systems, and people needed to operate and support embedded computer systems.
- Facilities. Permanent, semi-permanent, or temporary real property assets required to support the system, including conducting studies to define facilities or facility improvements, locations, space needs, utilities, environmental requirements, real estate requirements, and equipment.
- Packaging, Handling, Storage, and Transportation. Resources, processes, procedures, design considerations, and methods to ensure that all system, equipment, and support items are preserved, packaged, handled, and transported properly, including environmental considerations, equipment preservation requirements for short and long term storage, and transportability.
- Design Interface. The acquisition logistics interface with the design process is through the systems engineering process. Supportability must be considered as part of the requirements generation and analysis activities and continues through design, test and evaluation, production, and fielding. The early focus should result in the establishment of support related design parameters. These parameters should be expressed both quantitatively and qualitatively in operational terms and specifically relate to systems readiness objectives and the support costs of the system.

Responsibilities: The APML, as a participant on the program IPT, shall develop and document a support strategy for life-cycle sustainment and continuous improvement of product affordability, reliability, and supportability, while sustaining readiness. This effort shall ensure that system support and life-cycle affordability considerations are addressed and documented as an integral part of the program's overall acquisition strategy. The support strategy shall define the supportability planning, analyses, and trade-offs conducted to determine the optimum support concept for a material system and strategies for continuous affordability improvement throughout the product life cycle.

The APML shall conduct supportability analyses as an integral part of the systems engineering process, beginning at program initiation and continuing throughout the program's life cycle. The results of these analyses shall form the basis for the related design requirements included in the system performance specification and acquisition logistics support plan (ALSP). The results shall also support subsequent decisions to achieve cost-effective support

throughout the system life cycle. The APML shall permit broad flexibility in contractor proposals to achieve program supportability objectives.

The APML, in coordination with Military Service logistics commands, shall develop a life-cycle product acquisition logistics support plan (i.e. ALSP). The plan shall include actions to assure sustainment, and continually improve product affordability for programs in initial procurement, reprocurement, and post-production support. The plan shall demonstrate an integrated acquisition and logistics strategy for the remaining life of the system/subsystem. The plan shall be updated at least every five years during the product's life cycle, or with greater frequency, depending on the pace of technology. As a minimum, the plan shall address how the program will accomplish the following objectives:

- Integrate supply chains to achieve cross-functional efficiencies and provide improved customer service through performance-based arrangements or contracts.
- Segment support by system/subsystem and delineate agreements to meet specific customer needs.
- Maintain relationship with the user/warfighter based on system readiness.
- Provide standard user interfaces for the customer via integrated sustainment support centers.
- Select best-value, long-term product support providers and integrators based on competition.
- Measure support performance based on high-level metrics, such as availability of mission-capable systems, instead of on distinct elements such as parts, maintenance, and data.
- Improve product affordability, system reliability, maintainability, and supportability via continuous, dedicated investment in technology refreshment through adoption of performance specifications, commercial standards, and commercial and non-development items where feasible, in both the initial acquisition design phase and in all subsequent modification and reprocurement actions.

For additional information, refer Interim Defense Acquisition Guidebook (formerly DoD 5000.2-R) the ALH and the LMI performance specification. For a copy of the ALH follow the link to Policy and Tools, then ALH on the following website: <http://www.nalda.navy.mil>

POC: AIR-3.1F1, (301) 757-8316

CHAPTER XI: KEY TOPICS

PART F: INTEGRATED LOGISTICS

SECTION V: LOGISTICS MANAGEMENT INFORMATION (LMI)

Purpose: MIL-PRF-49506 Performance Specification Logistics Management Information (LMI) is a contractual method for acquiring support and support related engineering and logistics data from contractors in compliance with DoD acquisition and logistics reform initiatives.

Source Documents:

MIL-PRF-49506 Performance Specification Logistics Management Information

DI-ALSS-81529 Logistics Management Information Data Products

DI-ALSS-81530 Logistics Management Information Summaries

MIL-HDBK-502 DoD Handbook Acquisition Logistics

NAVAIR Contracting for Supportability Guide

Discussion: The LMI was developed by a joint services technical working group under the direction of the Office of the Deputy Undersecretary of Defense for Logistics. It is the replacement document for MIL-STD-1388-2B Logistics Support Analysis Record and may be used on all new and major modifications to acquisition systems/equipment. It represents a fundamental change in the way data requirements are levied on contracts, and does not contain any “how to’s”. This new specification is designed to minimize oversight and government-unique requirements and allow contractors maximum flexibility in designing systems and developing, maintaining, and providing support and support related engineering data through the system engineering process.

The LMI may be tailored up or down for acquiring support data unique to each program’s requirements. Contractors are strongly encouraged to offer support and support related engineering data to the government in their own commercial formats if the data is readily available and can cost-effectively meet DoD’s needs. The preferred method of delivery is for on-line access to the contractor’s database to eliminate the costly delivery of paper copies.

Responsibilities: The APML should determine what acquisition logistics products are to be developed and how they will be delivered (magnetic tape, disk, etc.). In keeping with current and evolving policy regarding reduction of data requirements, the importance of acquiring appropriate data must be emphasized. This data forms the baseline from which acquisition logistics products (e.g. technical pubs, provisioning, training, maintenance plans, etc.) are developed. The APML should work closely with functional area LEMs, cognizant IPT members, and others to determine what data requirements from the LMI will be needed. This logistics planning data will also be included in the acquisition logistics support plan (ALSP).

Appendix A of the LMI identifies eight types of supportability analysis summaries in broad, general terms, and worksheet 1 can be used to identify the content of the summaries. Together with DID DI-ALSS-81530 the worksheets will be identified in and attached to the program’s SOW for inclusion in the RFP.

Appendix B of the LMI identifies definitions, data codes, and field formats of 159 data products to be selected as data deliverables using worksheet 2. Together with DID DI-ALSS-81529 the worksheet will be identified in and attached to the program’s SOW for inclusion in the RFP.

For additional information, follow the link to Policy and Tools, then LMI on the following website:

<http://www.nalda.navy.mil>

POC: AIR-3.1F1, (301) 757-8316

CHAPTER XI: KEY TOPICS

PART F: INTEGRATED LOGISTICS

SECTION VI: INITIAL OPERATIONAL CAPABILITY SUPPORTABILITY REVIEW (IOCSR)

PURPOSE: The purpose of the Initial Operational Capability Supportability Review (IOCSR) is to positively impact supportability programs through augmented management attention, realignment of funds, or other available means, and to communicate the Integrated Logistics Support (ILS) posture of systems & equipment to our fleet customers. The IOCSR process will provide quality and timely information to decision authorities regarding ILS support. IOCSR replaces the Independent Logistics Assessment (ILA) at IOC and will be the basis for certifying at IOC the adequacy of logistics support to the Milestone Decision Authority (MDA) for all ACAT I-IV programs. The IOCSR process consists of four major phases. To accomplish the objectives, specific functions must be accomplished and certain products and support services must be provided. The following describes those functions, products, and services required for each phase of the process.

Source Document: NAVAIRINST 4081.3

Responsibility:

Phase I – Identification & Tracking of Programs to be Assessed: AIR-1.0, AIR-3.1, and cognizant APEO (L) are to create and maintain a password protected IOCSR database on the Initial Operational Capability Supportability Review web site to identify all ACAT I-IV program IOC dates. The IOCSR database will utilize the existing AIR-1.0 managed ACAT database for ACAT I-IV programs.

Phase II – The Self-Assessment: Every Program Manager (PM) and Assistant Program Manager for Logistics (APML) will jointly conduct an IOC self-assessment. The PM/APML, during the course of the self-assessment, must obtain written user agreement to all work-arounds. The name, code and phone number of the user representative providing concurrence must be identified on a Workarounds & Fleet Concurrence slide. The self-assessment results will be recorded on the IOCSR self-assessment-briefing guide and be made available on the IOCSR Website. The PM/APML will ensure a self-assessment is maintained in a current status and available on the Web from 24 months prior to IOC until the program is at IOC. Additionally, the program will ensure an accurate assessment is available at least one month prior to the Pre-IOCSR or IOCSR board meetings.

Phase III – The Pre-IOCSR Board:

Based upon their review of the self-assessments, the Pre-IOCSR board is responsible for:

- Recommending which programs are briefed to the IOCSR Board
- Resolving support issues
- Recommending actions to be taken by the IOCSR Board (such as delay of IOC/fleet introduction, addition of funding, etc.)
- Recommending any special actions or conditions

The Pre-IOCSR board is at the O-6/O-7 level and is represented by NAVAIR 1.0/3.0/4.0, CNO N432/781, HQMC, CinC N43, TYCOM N41/42, & PEO (A/T/W/JSF)

Pre-IOCSR Board Schedule: The Pre-IOCSR board is to meet semi-annually in April and October. They are to review programs scheduled to reach IOC or be introduced into the fleet within the forthcoming eight-quarter window.

Phase IV – The IOCSR Board:

Based upon their review of the self-assessments and the Pre-IOCSR Board's recommendations, the IOCSR board is responsible for:

- Recommending actions to be taken by the PM or Sponsor (such as delay of IOC/fleet introduction, addition of funding, etc.), and
- Recommending any special actions or conditions.

The IOCSR Board is at the O-7 to O-9 level and is represented by NAVAIR 00/1.0/3.0/4.0, CNO N43/78, HQMC, CinC N4, TYCOM N00, & PEO (A/T/W/JSF)

The IOCSR Board schedule: The IOCSR Board is to meet annually in June.

POC: AIR-3.1E, (301) 757-8229

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PART F: INTEGRATED LOGISTICS

SECTION VII: NAVAIR CONTRACTING FOR SUPPORTABILITY GUIDE (CFSG)

Purpose: This Guide is a companion document to MIL-PRF-49506 Logistics Management Information (LMI) and MIL-HDBK-502 Acquisition Logistics Handbook (ALH), which along with the NAVAIR Procurement Initiation Document (PID) Guide, will be used in writing supportability statements of work/objectives for future acquisition programs. This Guide assists acquisition managers in identifying support requirements which implement DoD acquisition and logistics reform policy.

Source Documents:

NAVAIR Contracting for Supportability Guide (CFSG)

MIL-PRF-49506 Performance Specification Logistics Management Information

MIL-HDBK-502 DoD Handbook Acquisition Logistics

Discussion: Cancellation of the Department of Navy waiver which allowed the Navy to use MIL-STD-1388-1A and -2B gives the NAVAIR Contracting for Supportability Guide great significance. It is the single guidance document for APMLs and logistics managers. It presents the standard approach in contracting for logistics products using the LMI and ALH. The CFSG contains areas addressing the following topics:

- Program Management for Logistics; Use of Government Documents; and Guidance for Preparing Supportability Solicitations.
- Contracting for the following support elements - Maintenance Planning; Design Interface; Repair Level Analysis; Technical Data; Support Equipment; Supply Support; Packaging, Handling, Storage, and Transportation; Facilities; Manpower, Personnel, Training and Training Support; Computer Resources Support; and Post Production Support.
- Chapters on Source Maintenance and Recoverability Codes; Work Unit Codes; Warranties; and Reliability Centered Maintenance.
- List of Abbreviations and Acronyms; Supportability Planning Factors; Wording in Statements of Work; Statement of Work Checklist; and References and Additional Information.

Responsibilities: As Interim Defense Acquisition Guidebook (formerly DoD 5000.2-R) stipulates, the APML shall conduct supportability analyses as an integral part of the systems engineering process, with the results of these analyses forming the basis for related design requirements included in the systems performance specification and ALSF. The APML shall develop a performance-based statement of work/objective to include supportability metrics in addition to the usual operationally oriented performance goals.

For additional information, follow the link to Policy and Tools, then CFSG on the following website:

<http://www.nalda.navy.mil>

POC: AIR-3.1F1, (301) 757-8316

CHAPTER XI: KEY TOPICS

PART F: INTEGRATED LOGISTICS

SECTION VIII: WARRANTIES

Purpose: To describe the warranty development process.

Discussion Interim Defense Acquisition Guidebook (formerly DOD 5000.2-R), 4 Jan 2001, contains the following paragraph for warranties in 2.9.3.7: The PM shall examine the value of warranties on major systems and pursue them when appropriate and cost-effective. If appropriate, the PM shall incorporate warranty requirements into major systems contracts in accordance with FAR Subpart 46.7. The PM shall emphasize the use of warranties to mitigate the risks of conversion of product definition data for subsystems, components, and spares to performance requirements during post-production support.

Acquisition Plans must state the intent to use a warranty.

The Program Manager is responsible for warranty development and assessment, and shall take all actions necessary to ensure that the warranty is effective and properly administered.

A plan for warranty development shall be a discussion item during the Procurement Planning Conference meeting (see Chapter VIII, Part B of this Guide).

The Program Manager should take the following steps to develop the warranty:

- ◆ Task the PCO to develop contractual language to implement the warranty.
- ◆ Task the APML/LM to: (a) provide inputs to the warranty based on the maintenance concept and future initial/replenishment spare procurements, ensuring that the maintenance plan and the warranty are compatible, (b) coordinate with the spares procuring agency (e.g., Naval Inventory Control Point) to assure that the warranty and future spares warranties are compatible, and (c) develop a warranty implementation plan.
- ◆ Coordinate with the Administrative Contracting Officer (ACO) and document their role in administering the warranty.

Coordinate with NAVAIRINST 13070.7A Warranty Policy and Procedures POC and NAVAIR Warranty Web Site located at: <http://www.nalda.navy.mil/3.6.1/warranty.html>

Warranty policy and guidance is discussed in the Contracting for Supportability Guide, Chapter 16.

POC. AIR-3.1F, (301) 757-8233.

CHAPTER XI: KEY TOPICS

PART G: ENVIRONMENTAL, SAFETY AND OCCUPATIONAL HEALTH ISSUES

Purpose: This section identifies NAVAIR expertise and resources available to support the integration of environmental, safety and occupational health (ESOH) requirements into all NAVAIR programs. It is also intended to help acquisition managers understand the ESOH requirements that exist in the acquisition process.

Source Documents:

DoDI 5000.2 Sections E3 Encl 3, E7.7

Interim Defense Acquisition Guidebook (formerly DoD 5000.2-R) Sections 1.4.2, 2.8, 2.8.4, 2.8.5, & 5.2.3.5.10

DoD 6055.9-STD

SECNAVINST 5000.2B

SECNAVNOTE 5400

OPNAVINST 5090.1B

OPNAVINST 5100.23F

NAVAIRINST 5090.2, Ozone Depleting Substances Policy

Executive Orders (EOs) 12114, 12898, 13101, 13123, and 13148.

Discussion: The Assistant Secretary of the Navy for Research, Development & Acquisition (ASN(RD&A)) has issued policy requiring that program managers (PMs) ensure their programs have minimal ESOH impacts during fleet operations. DoDI 5000.2 requires program managers to conduct a programmatic ESOH evaluation (PESHE) as part of the acquisition strategy to ensure that impacts are identified and mitigated. The suggested format for documentation of this evaluation is available at the AT&L KSS website <http://web2.deskbook.osd.mil/default.asp>. Regardless of how it is conducted, this evaluation must address each of the six specific ESOH risk areas.

Resources: Within NAVAIR, there are a host of ESOH resources to which a PM has access. AIR-1.0 is established as the core Environmental Team (AIR-1.1.E) for NAVAIR. The environmental integrated product team has oversight for matters facing the command and manages resources to assist NAVAIR and program managers to meet environmental requirements. These resources include ESOH coordinators who maintain expert knowledge of ESOH issues relating to acquisition management. These coordinators with assistance of environmental managers at NAVAIR sites, pollution prevention coordinators, and Lead Maintenance Technology Center (Environment) Working Integrated Product Team (LMTCE-WIPT) members, from across the Team can help a PM navigate environmental requirements and provide an overall life cycle approach to mitigating impacts associated with weapon system manufacturing, deployment and disposal. They can, for example, identify and plan for personnel and community noise mitigation and mitigate marine mammal impacts during test site selection and test planning, facilitate the reduction of costs at facilities, plan for ESOH technology transition, influence both system design and supportability analyses, and provide ESOH cost estimates. Additionally, ESOH coordinators are familiar with many contracts dealing specifically in environmental analyses that are available to the PM. Ideally every PM should have an ESOH coordinator. As a competency, AIR-1.1.E will provide this service to PMs. The ESOH coordinator along with other Team assets (LMTCE/WIPT, Pollution Prevention coordinators, facility environmental managers, etc.) will work together to develop an overall plan to identify ESOH rules, liability as well as strategy to mitigate risks via pollution prevention and hazardous material reduction and assist in completing the required PESHE to support milestone decisions.

Required Analyses: For detailed information on PESHE development and ESOH integration, consult the [AT&L KSS website](#). The PESHE requires the following analyses:

National Environmental Policy Act (NEPA) PMs must comply with NEPA by assessing any environmental consequences of the program's execution per OPNAVINST 5090.1B and providing any necessary documentation to the appropriate office(s) per SECNAVNOTE 5400. Specific procedures should be followed for Categorical Exclusions, Environmental Assessments, and Environmental Impact Statements to reduce cost and schedule risk for programs. Interim Defense Acquisition Guidebook (formerly DoD 5000.2R), requires a plan of actions and milestones for NEPA compliance prior to a milestone decision. Per EOs 12114 this requirement is expanded to cover actions in regions outside the U.S.

Environmental Compliance Applicable federal, state and local ESOH regulations that will impact the program throughout its life cycle should be identified and cost-effective compliance with these regulations should be integrated into program execution. A Compliance Calendar has been developed to assist PMs with this requirement. It can be found at <http://www.enviro-navair.navy.mil>.

Safety and Health PMs are required to identify and evaluate system safety and occupational health hazards, define risk levels, and establish a plan that manages the probability and severity of all safety and occupational health risks associated with development, operations, and disposal. The PM shall use and require contractors to use the industry and DoD standard practice for system safety, consistent with mission requirements. This standard practice manages risks encountered in the acquisition life cycle of systems, subsystems, equipment, and facilities. Additionally, PL 91-596¹ makes Federal Occupational Safety and Health Act standards and regulations applicable to all federal (military or civilian) and contractor employees working on DoD acquisition contracts or in DoD operations and workplaces. In the case of military-unique equipment, systems, operations, or workplaces, Federal safety and health standards, in whole or in part, shall apply to the extent practicable.

Hazardous Materials (HAZMAT) PMs shall establish a hazardous materials management program (HMMP) to ensure that, where possible, hazardous material usage is reduced or eliminated at the source and that NAVAIR incurs the lowest cost required to protect human health and the environment over the system's life cycle. National Aerospace Standard 411 has been developed as a guide to HMMP for PMs and contractors. EO 13148 provides for an agency-wide goal of 40 percent reduction in hazardous waste and toxic chemicals release by December 31, 2006.

Pollution Prevention (P2) PMs shall establish a P2 program. Pollution should be prevented or reduced at the source wherever feasible. All other pollution should be recycled or treated in an environmentally safe manner. EO 13101 establishes goals for waste prevention and recycling, and the procurement of environmentally safe products. Ozone Depleting Substances (ODS) should be eliminated from federal acquisition programs entirely.

Explosives Safety All acquisition programs that include or support munitions explosives or energetics shall comply with DoD explosives safety requirements. These requirements include compliance with DoD 6055.9-STD. PMs must establish an explosives safety program to manage such materials and their risks throughout their life-cycle.

The PESHE should be initiated prior to a program's initial milestone, and updated at subsequent milestones or significant events, as the PM deems necessary. This evaluation should identify areas of ESOH risk within the six areas above and establish a plan to address those areas of concern throughout the life cycle of the program. Cost factors must be addressed in each of the PESHE's six sections.

Corporate ESOH Initiatives: In order to better support PEOs, PMs, and competencies, AIR-1.1.E has established an Acquisition Environmental Product Support Team (AEPST). The mission of the AEPST is to incorporate sound ESOH planning and pollution prevention doctrine into the life-cycle requirements of Team programs. AEPST action officers are responsible for corporate ESOH planning and coordination as well as ESOH policy and guidance for all NAVAIR programs. AIR-1.1.E has also established and sponsors the Lead Maintenance Technology Center (Environment) Working Integrated Product Team (LMTCE-WIPT), which consists of both ESOH and P2 coordinators. This team's mission is to provide programmatic ESOH planning support to acquisition managers, and

to coordinate technology transition that addresses fleet ESOH needs. Currently, the LMTCE-WIPT is implementing the following:

1. Assist and support ESOH Coordinators o develop PESHEs, technology transition plans, and environmental tools;
2. Actively promote Pollution Prevention as NAVAIR's means to address ESOH compliance;
3. Assist AIR-1.1.E with the coordination and transition of environmental technologies and solutions across the Fleet, Depots, and NAVAIR; and
4. Manage a technical information database supporting NAVAIR ESOH Needs, Hazardous Material and Waste, and the ESOH technology Transition Master Schedule.

POC: Environmental Acquisition Support Division, Bldg. 2272, room 353, (301) 757-2155.

CHAPTER XI: KEY TOPICS

PART H: Engineering Disciplines

Section I: HUMAN SYSTEM INTEGRATION Process

Purpose: To influence system design and associated support requirements so that developmental, non-developmental, and product-improved systems can be operated and maintained in the most cost-effective and safe manner consistent with manpower structure, personnel aptitude and skill, and training resource constraints.

Source Documents:

DoDD 5000.1

DoDI 5000.2

SECNAVINST 5000.2B

Discussion: According to current DOD policy (DODI 5000.2, Enclosure 7), the PM shall have a comprehensive HSI plan in place early in the acquisition process to optimize total system performance, minimize total ownership costs, and ensure the system accommodates the characteristics of personnel that will operate, maintain and support the system. The HSI approach must include the following disciplines, as applicable: human factors engineering, personnel, habitability, manpower, training, safety and occupational health, and personnel survivability. Program support (technical personnel, processes, tools) for these disciplines is provided by various NAVAIR engineering and logistics competencies. Nested within the overarching systems engineering process, HSI focuses on the integration of these disciplines among themselves and into design and support concepts. Beginning at program inception, the HSI effort helps develop system-specific and measurable HSI constraints (manpower, personnel, training, human performance, health hazards, and environment requirements), then HSI disciplines are actively employed throughout the acquisition process to ensure a product is delivered that is operable and supportable within those constraints. Further guidance and HSI Process documentation is available from the NAVAIR HSI POC.

Does HSI work? The U.S. Army undertook an extensive cost-benefit analysis of HSI as applied to their Comanche Aircraft Program. They reported an estimated 3.3 BILLION DOLLARS cost avoidance due to HSI efforts.

Lessons Learned:

- 1) Too Little Too Late. Many programs do not consider HSI until a milestone review is imminent and an the question of HSI documentation is at hand. DOD Policy requires the HSI approach to be summarized in the acquisition strategy. HSI approach and documentation should be commensurate with the nature and requirements of the program. Contact the NAVAIR HSI Coordinator as early as possible to obtain the latest guidance and support.
- 2) Team Effort. HSI is consistent with current team concepts. Program- or IPT-level HSI working groups are important integration mechanisms to be considered. Stove-piping IPTs should be avoided.
- 3) I'm Human, I Can Do HSI. The disciplines of HSI are legitimate, scientifically-based technical disciplines with supporting theories, empirical data, analytical techniques, methodologies, and professional guidelines that take advanced academic degrees and many years of experience to master. Although fleet user representation on design teams is desirable (and often necessary), it cannot replace experienced, proficient professionals.

POC: AIR-4.6.5, (301) 342-2241

CHAPTER XI: KEY TOPICS

PART H: Engineering Disciplines

Section II: SYSTEMS ENGINEERING

Purpose: Systems Engineering (SE) is a key ingredient to successful Program Management. SE must be viewed as a set of tasks for the Integrated Program Team (IPT)/Fleet Support Team (FST), vice “the (Chief) Systems Engineer’s job”.

Source Documents:

NAVAIRINST 4355.19B, Systems Engineering Technical Review Process (draft 25 June 2003))

MIL-STD-499A, Systems Engineering, 1 May 1974 (now cancelled)

MIL-STD-499B, Systems Engineering, 1994 (never released)

EIA Standard 632, Systems Engineering, January 1999

NAVAIR Systems Engineering Guide – The NAVAIR Systems Engineering Process Working

Group added NAVAIR relevant information to o EIA-632 (Annexes beyond “G” were added by NAVAIR) NAVAIR Institute (SEI) Capability Maturity Model for software integration.

Definitions:

System - A system is an integrated composite of people, products, and processes that provide a capability to satisfy a stated need or objective.

Systems Engineering - Systems Engineering (SE) is the effective application of scientific and engineering efforts to transform an operational need into a defined system configuration through the top-down iterative process of requirements definition, functional analysis and allocation, synthesis, optimization, design, test, and evaluation.

Other descriptors include:

- Top-down approach viewing the system as a whole
- A life-cycle orientation
- A total integrated effort with emphasis on “front-end” analysis
- An interdisciplinary effort (“team” approach)

Discussion:

The systems engineering process is the heart of systems engineering management. Within NAVAIR, SE is normally coordinated by the Assistant Program Manager for Systems and Engineering (APMSE – “class desk”). Systems Engineering provides a structured but flexible process that transforms requirements into specifications, architectures, and configuration baselines. The discipline of this process provides the control and traceability to develop solutions that meet customer needs. SE controls the design effort, and is the major connection between the technical management efforts and the overall acquisition effort. It controls the design effort by developing design baselines that govern each level of development. The systems engineering process may be repeated one or more times during any phase of the development process.

NAVAIRINST 4355.19B establishes the policy, outlines the process, and assigns responsibilities for the conduct of 12 Systems Engineering Technical Reviews (SETRs) on NAVAIR programs. It also requires programs to have a Systems Engineering Master Plan (SEMP), which defines the overall plan for SETRs, and the systems engineering processes to be employed by the program. Additional information concerning implementation of this instruction, and procedures for compliance are provided separately in the supplemental SETR Process Handbook which contains stand alone technical review modules and a Risk Assessment checklist for each of the reviews. These documents are living documents, intended to be updated based on user experiences, and are accessible in the NAVAIR Microsoft Outlook Public Folder, under AIR-4.1G and on the NMCI network at <https://syseng.navair.navy.mil>, under “National Management Implementation”.

Life cycle integration is necessary to ensure that the design solution is viable throughout the life of the system. It includes the planning associated with product and process development, as well as the integration of multiple functional concerns into the design and engineering process. In this manner product cycle-times can be reduced, and the need for redesign and rework substantially reduced.

In summary, systems engineering is an inter-disciplinary engineering management process that evolves and verifies an integrated, life cycle balanced set of system solutions that satisfy customer needs. The key to program success is to have a SE process in place, and utilize the process during execution of the program.

POC: APEO(RDT&E), (301) 757-6640

CHAPTER XI: KEY TOPICS

PART H: Engineering Disciplines

Section III: VALUE ENGINEERING

Purpose: The Value Engineering Program is an effective technique used Government-wide to motivate contractors to devise procedures to reduce the cost of acquired hardware and services without degrading essential performance.

Source Documents: Public Law (PL) 104-106 (Feb 96) requires Value Engineering procedures to be used by executive agencies, as appropriate. Federal Acquisition Regulation (FAR (Part 48)) on Value Engineering was revised in November 1999 and offers increased incentives for Government contractors to participate in the Value Engineering program. OMB Circular A-131 of 21 May 93; NAVAIRINST 4858.3B, Subj: NAVAIR Value Engineering Program.

Background: The Navy has used Value Engineering (VE) methodology in their acquisition programs for more than 30 years. In 1996, Congress enacted legislation recommending use of Value Engineering in all executive agencies. President Clinton signed the bill into law as Public Law 104-106, the Federal Acquisition Reform Act of 1996. The Office of Federal Procurement Policy revised the Federal Acquisition Regulation (FAR) Part 48, in August 1996 to **require agencies to establish and maintain cost-effective value engineering procedures and processes**. The recent revision to the FAR (Part 48) offers contractors increased saving rates and extended share saving periods to encourage their participation in submitting Value Engineering Change Proposals (VECPs). VE as a management tool can significantly reduce Government expenditures, both in the hardware acquisition cost and the operating and support costs for fielded equipment. Through the submittal of VECPs, the contractor identifies potential areas for reducing costs, without degrading required performance. Upon VECP technical approval and bi-lateral contract modification, the contractor may receive a significant savings share after recoupment of any non-recurring costs to qualify and implement the change.

Discussion: VE is a management tool that can be used alone or with other management techniques and methodologies to reduce costs. NAVAIR and our Contractors have used VE to implement acquisition reform initiatives through elimination of military specifications and standards and providing the contractor more flexibility in component configuration substitution. The Navy continues to request deviations from the FAR to make VECPs more attractive for contractors. The NAVAIR expanded use of the Integrated Program (Product) Teams (IPT) has expedited the change control approval process for VECPs.

Problems: VECPs are unbudgeted change opportunities for contractors to propose to reduce costs and share in the savings that result. To implement VECPs, the Government may have to "invest" on the instant contract on a process or component change that will result in future contract cost savings either in acquisition or life cycle costs of operation and support. In the current DoD budget environment, funds are difficult to obtain to approve VECPs. We continue to request contractors to partner in the financial investment necessary to develop and implement VECPs, offering increased sharing rates and extended share periods to the contractors.

Summary: The November 1999 revision to the FAR (Part 48) offers contractors new incentives for Value Engineering participation. The Undersecretary of Defense for Acquisition, Technology and Logistics has implemented a VE Strategic Plan for all services, with special emphasis on major Defense Acquisition Programs (MDAPs). The current financial and future production environment creates obstacles to implement VECPs. We can provide VE training to our contractors or program staffs at no cost. A VECP process flow and program check-off list is available. VE is a "win-win" approach for both the contractor and the Navy.

VECP information on the WEB:

Value Method- <http://www.value-eng.com>

FAR Subpart 48-1- <http://www.arnet.gov/far>

POC: AIR-4.1C, (301) 342-2220

CHAPTER XI: KEY TOPICS

PART H: Engineering Disciplines

Section IV: INTEGRATED BASELINE REVIEWS (IBRs)

Purpose: The purpose of the IBR is to achieve joint PM's understanding of the risks inherent in the Performance Measurement Baseline (PMB) and the management control processes that will operate during contract execution.

Source Documents: Interim Defense Acquisition Guidebook (formerly DoD 5000.2-R), SECNAVINST 5000.2B, NAVAIRINST 4355.19B, Systems Engineering Technical Review Process (draft)

Discussion: Effective program cost and schedule management depends upon establishment of reliable contractor cost, schedule, and technical baselines. By the above references, program managers and their technical staffs of Integrated Program (Product) Teams (IPTs) are required to review contractor planning baselines within six months after contract award. The process should be employed throughout the life of the project to maintain continuing joint PM's understanding. This review is required for contracts requiring compliance with the DoD Earned Value Management System (EVMS) Guidelines or Cost/Schedule Status Report requirements. The objectives of the IBR are as follows:

- a. Confirm that the Performance Management Baseline (PMB) captures the entire technical scope of work.
- b. The work is scheduled to meet the program objectives.
- c. The risks are identified.
- d. The proper amount and mix of resources have been assigned to accomplish all requirements.
- e. The management control processes are implemented.
- f. Tasks are planned and can be measured objectively relative to the technical progress.

Responsibilities:

- a. The program managers, as leaders of the IPTs, are responsible for planning and executing the IBR (e.g., providing an adequate number of qualified technical personnel to serve as the principal IBR team members, supplemented by applicable support skills; documenting in the risk management plan risks identified during the IBR, and review progress on the actions until issues are resolved).
- b. The Assistant Commander for Research and Engineering (AIR-4.0) is responsible for the development/maintenance of IBR guidelines and processes and recommending candidate programs subject to IBRs. Assistant Program Managers for Systems Engineering will lead the technical assessment during IBRs (assisted by assigned Assistant Program Managers for Logistics, NAVAIR Headquarters and field activity personnel, and contract administration offices) as directed by the PMA.
- c. Procuring Contracting Officers will ensure that contractors are informed, in appropriate Request for Proposal (RFP) language, of the Government's intent to conduct IBRs after award. (Contractual authority for conducting IBRs can be found in the data access provision of the EVMS Clause 252.234-7001.) In drafting the RFP, IPTs should consider requiring submission of an appropriate level of baseline information as part of the contractor's proposal. This information may then be used in the evaluation of proposals during source selection. Contractor proposals should be prepared and evaluated in full awareness of planned IBR requirements, and IBR schedules promulgated so that the contractor can properly prepare for such reviews.
- d. Upon completion, the results of the IBR execution need to be mutually understood and documented in the management processes for baseline maintenance and risk management. The PMs should agree on a plan of action and who is responsible for the action for each risk item identified.
- e. With proper planning and preparation, IBRs can provide a means for PMAs to manage program performance through a better understanding of the PMB and the contractor's management control processes.

POC: AIR-4.2.6, (301) 342-2394

CHAPTER XI: KEY TOPICS

PART H: Engineering Disciplines

Section V: MANUFACTURING ENGINEERING

Purpose: This section addresses the implementation of manufacturing engineering (ME) in the acquisition process. ME includes design producibility, manufacturing planning, and quality assurance/engineering.

Discussion: AIR-4.1.9 personnel provide ME support and expertise to their assigned Integrated Program (Product Teams (IPTs)). ME requirements will be tailored from FAR sections 46 and 52, DoD Series 5000.1/2, NAVSO P-4245.7-M, and extensive lessons-learned. ME requirements will typically be placed in the Statement of Work (SOW), equipment specification, and contract data requirements list. Acquisition plans will reflect consistency with the contract and Navy policy embodied in SECNAVINST 5000.2B. NAVAIRINST 4355.19B, Systems Engineering Technical Review Process (25 Jun 2003) addresses the technical reviews conducted on each program, and provides a Production Readiness Review risk assessment checklist. Additional information concerning implementation of this instruction, and procedures for compliance are provided separately in the supplemental SETR Process Handbook which contains stand alone technical review modules and a Risk Assessment checklist for each of the reviews. These documents are living documents, intended to be updated based on user experiences, and are accessible in the NAVAIR Microsoft Outlook Public Folders, under AIR-4.1.G and on the NMCI network at <https://syseng.navair.navy.mil>, under “National Management Implementation”..

AIR-4.1.9 support should be enlisted for all program phases, well before contract award, in order to influence acquisition planning and to ensure that manufacturing, producibility, and quality are appropriately considered in RFPs. AIR-4.1.9 personnel should participate in source selections and pre/post-award surveys. The ME competency's basic functions are to assess the design, manufacturing processes, and tooling; to mitigate production transition risk through evaluating design and manufacturing alternatives in light of program affordability, manufacturing efficiency and quality objectives; and to identify and resolve production and quality problems experienced in the field or manufacturing facility.

AIR-4.1.9 personnel identify, assess, and seek the mitigation of manufacturing, producibility, and quality risks beginning early in development and continuing through production. This role is accomplished through participating in design reviews and program meetings, by reviewing contractor quality, producibility and manufacturing plans, reports, and internal documents, by reviewing draft drawings, by leading ME-oriented reviews, and by liaison with the on-site Defense Contract Management Area Operations (DCMAO) representative. ME competency areas include:

- ◆ Design Producibility, including integrated product and process development, design for manufacturing/assembly, key characteristic definition and control, geometric dimensioning and tolerancing, process development, validation and verification, gage and tooling development, and design-to-cost efforts.
- ◆ Manufacturing Management, including the development and implementation of production scheduling/control and work measurement systems, work instructions, and lean/agile systems.
- ◆ Quality, including the development and implementation of the quality system, process control, variability reduction, foreign material exclusion, workmanship, and nonconformance prevention.

POC: AIR-4.1.9, (301) 342-0196

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Section VI: SYSTEMS ENGINEERING TECHNICAL REVIEWS

Purpose: Systems Engineering Technical Reviews (SETRs) ensure competency insight of the technical aspects of every NAVAIR program. They are a key tool in managing technical progress and communications, and provide an important function in acquisition program management.

Source Documents:

NAVAIRINST 4355.19B Systems Engineering Technical Review Process.25 Jun 2003

SETR Risk Assessment Checklists

MIL-STD-1521 System Design Review

NAVAIRINST 13034.1B Flight Clearance Policy for Manned Air Vehicles, 24 Oct 2000

NAVAIRINST 13034.2 Flight Clearances for Unmanned Aviation Systems, 15 Aug 2001

NAVAIR Systems Engineering Guide

Tools are available to assist in the development and management of requirements (e.g. DOORS)

Discussion: NAVAIRINST 4355.19B establishes the policy, outlines the process, and assigns responsibilities for the conduct of Systems Engineering Technical Reviews (SETRs) on NAVAIR programs. It also requires programs to have a Systems Engineering Master Plan (SEMP), which defines the overall plan for SETRs, and the systems engineering processes to be employed by the program. From a technical perspective, there are five critical processes that merit thorough planning to properly manage program risk and ensure program success. These program pillars are:

- the Systems Engineering Management Plan (SEMP);
- the Acquisition Logistics Support Plan (ALSP);
- the Test and Evaluation Master Plan (TEMP)
- an Independent Cost Estimate (ICE); and if appropriate.
- Airworthiness Process

Additional information concerning implementation of this instruction, and procedures for compliance are provided separately in the supplemental SETR Process Handbook which contains stand alone technical review modules and a Risk Assessment checklist for each of the reviews. These documents are living documents, intended to be updated based on user experiences, and are accessible in the NAVAIR Microsoft Outlook Public Folders, under AIR-4.1G, and on the NMCI network at <https://syseng.navair.navy.mil>, under “National Management Implementation”.

As a part of the overall systems engineering process, technical reviews enable an integrated assessment of the system’s design progress against plans and key knowledge points in the development process. Engineering rigor, interdisciplinary communications, and competency insight are applied to the maturing design in the assessment of requirement traceability, product metrics, and decision rationale. Technical reviews are an integral part of the systems engineering process and consistent with existing and emerging commercial standards. NAVAIR conducts technical reviews on the Program Executive Officer (PEO) and NAVAIR managed acquisition programs (acquisition categories I through IV). Technical reviews may also be applied to Abbreviated Acquisition Programs (AAPs) as determined by the cognizant PEO and program manager. Program plans and contracts should provide for the conduct of technical reviews as part of the acquisition process. An objective of these reviews is to provide the program manager with an executive-level engineering assessment

Program managers shall ensure that the results of each technical review (overall technical/risk assessment and resolved action items) are addressed by the program team and are integrated into the management assessment of program technical, cost, and schedule risk. Any attempt to tailor acquisition activities by deleting Technical Reviews should be guided toward reducing the scope of reviews, vice deleting them.

POC: APEO(RDT&E), (301) 757-6640

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Section VII: MODELING AND SIMULATION (M&S)

Source Documents:

DoDD 5000.59(D) of 4 Jan 94
DoD 5000.1 and 500.2 of 12 May 03
DoD M&S Master Plan DoD 5000.59-P
SECNAVINST 5200.38-A (Draft)
SECNAVINST 5200.40 of 19 Apr 99
Navy Modeling and Simulation Master Plan
ASN(RD&A) Policy for Modeling and Simulation dtd 3 Jan 95
OPNAVINST 5200.3X Navy M&S Management Draft
DoD INSTR 5000.61 dtd 29 Apr 96; subj: DoD M&S VV&A
SECNAVINST 5200.40 dtd 19 Apr 99; subj: VV&A of M&S.

Discussion: DoD has issued this guidance to establish a management and administrative structure for improving the oversight, coordination, and communication of M&S issues. DoD policy directs the development of: DoD and Component Master Plans and Investment Plans; the establishment of an Information Analysis Center; the establishment of the Defense Modeling and Simulation Office; and an Executive Council for Modeling and Simulation (EXCIMS) with membership determined by USD (AT&L). DoD has directed future M&S investments to: support operational needs and the acquisition process; develop common tools, methodologies, and databases; and establish standards and protocols promoting the interoperability, data exchange, open system architecture, and software reusability of M&S applications. Accredited M&S applications shall be used to support DoD decision making processes such as the Defense Acquisition Board, the Joint Requirements Oversight Council, and the DoD Planning, Programming, and Budgeting System.

Models and simulations may be used as tools to support the program manager in each phase of the acquisition process. In this application, M&S is the application of those tools to support decisions. It is an efficient and effective source of valuable information to be used in the development and evaluation of new defense systems. M&S can aid in minimizing risks to cost, schedule, performance and supportability. When used properly, in an accredited and integrated manner, it can reduce the expenditure of resources, accelerate understanding through early insight, and shorten overall cycle time. At the same time, M&S can improve the quality of the system under development. Implementing state-of-the-art M&S for planning, design, analysis, management, and testing can significantly improve the effectiveness of the Integrated Product and Process Development (IPPD) management technique. It is through IPPD, and the Integrated Product Teams (IPT), that the full potential of M&S to support acquisition can be realized.

DoN has further directed that developers of all modeling and simulation applications designed for joint and combined uses shall meet DoD's joint and combined Service interoperability criteria and to give due regard to the High Level Architecture and other approved standards during the modeling and simulation design process. In addition, developers shall coordinate with representatives of the appropriate agency when they involve representations of the functions of that agency in their model or simulation. Oversight for DoN M&S activities is delegated to the Chief of Naval Operations and to the Commandant of Marine Corps. They will designate service M&S Executive Agents and will provide for the establishment of service component M&S officers to serve as the Navy and Marine Corps focal points. A Technical Support Group has been chartered to provide technical advice and assistance in the execution of M&S activities throughout the DoN and is hosted within the Space and Naval Warfare Systems Command.

Responsibilities: At milestone decisions, ASN(RD&A) has directed PMs to describe, within the integrated program summary, current and future M&S efforts. Program managers shall plan and budget for effective use of M&S to reduce the time, resources, and risk associated with the entire acquisition process; increase the quality, military worth and supportability of fielded systems; and reduce total ownership costs throughout the system life cycle. The

acquisition decision shall provide guidance regarding the appropriate level of M&S outputs needed to support the program's next milestone decision.

NAVAIR Systems Team Approach: Modeling and simulation are used for multiple applications across the acquisition process. Models can be simple, run on hand-held computer or requiring large computers or even high powered, high speed multiple processor machines. M&S are used throughout the R&D process from basic research through engineering development, test and evaluation, training and actual military operations. M&S are used throughout the NAVAIR organization. To facilitate an understanding of the M&S capabilities, the Warfare Analysis Department (AIR 4.10) is designated as the central POC for M&S. Depending upon the needs, interested personnel will be forwarded to the appropriate office who have cognizance over specific M&S capabilities. In addition, AIR 4.10 will establish an ad hoc Naval Aviation M&S working group made up of personnel across the organization. The working group will be the central point for reviewing M&S issues and instructions, coordinating M&S requirements across the organization and providing support to the NAVAIR program managers in developing their M&S implementations. AIR 4.10 will be the central POC for supporting the Navy's Modeling and Simulation Management Office, ensuring that meetings and working groups are supported, and that documentation is developed and distributed to keep the M&S working group informed on M&S issues.

Sample M&S capabilities are provided in the table below. The sample provided shows the type of capabilities that are available to the program managers across the spectrum of their program's development.

General Model Type	Name	Brief description	POCs	Potential application
Campaign models	THUNDER (USAF)		4.10.1:Guyotte	Conops, AoA, Requirements development, program justification
	ALSWAT		4.10.1:Fisher	
	JIMM			
Engagement/Mission Models	EADSIM			
	Naval Simulation System			
Specific Models	Suppressor			
	DIASS			
	MSASM			

General Simulation Type

ACETEF, F-18 simulations, P-3 simulations, SGS, IBAR, Dnet, etc.

Models under development: JWARS, JMASS, JSIMS, STORM,

References: Facilities handbook,

Visit the web pages below for additional information on M&S:

<http://www.dmsomil/>

<http://navmsmo.hq.navy.mil/>

POC: See POCs on Page 131

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Section VIII: NAVAL AVIATION ANALYSIS

Source Documents:

DoD 5000 series

Discussion: The DoD acquisition instructions require that the program manager provide significant documentation to support the program and its development. Initial Capabilities Document (ICD – formerly Mission Need Statement (MNS)) and Capability Development Document (CDD/Capability Production Document (CPD)/Capability Production Document (CPD) (formerly Operational Requirements Document (ORD)). require an understanding of the Navy's operational needs and the development of proposed solutions. The NAVAIR/NAWC Warfare Analysis Department's capabilities support the multiple facets and phases in the acquisition process. The department provides credible strategic planning, research, and analysis to support fact-based decisions in the acquisition and sustainment of naval aviation and weapons systems for the warfighter. Multiple approaches and techniques are available to support the decision making process and the associated steps in meeting program schedules and planning. Operational effectiveness analyses support concept definition and the development of key performance parameters (KPPs). Concepts of operations and associated operational requirements can be evaluated to support the ICD – formerly MNS) and CDD/CPD) (formerly ORD) as well as supplying background justification for decisions. Analysis of Alternatives (AoAs) can be managed and/or supported through the Operations Research techniques. Threat analysis and evaluation of systems within the context of multiple scenarios highlight requirements for aircraft and their individual subsystems. Some of the techniques used include linear, nonlinear and dynamic programming, game theory, Markov chains, Queueing theory, network analysis, inventory theory, search theory, risk assessment, chaos and complexity theory, regression analysis, hypothesis testing, statistical inference and decision theory. To ensure programs are justified through the spectrum of operations, a mix of models that show operational issues within a single mission context, a multiple mission context and within a joint warfighting context are available. Good communications skills ensure that the program manager is provided with reports and briefing materials to meet programming needs and schedules.

Responsibilities: Once program managers have indicated the needs for operational analysis, personnel are assigned to work with the program office to develop a plan for the analysis work including costs and schedules. Products such as ICDs, CDDs, CPDs, , AoAs, C4ISPs, Modeling & Simulation (M&S) plans et al can be defined and developed by the analysis team. Personnel from across the NAVAIR team are often needed to support the analysis process, providing insights from human factors, avionics, air vehicle perspectives, et al.

POC: Warfare Analysis Department, AIR-4.10 (301)342-8342

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Section IX: RISK MANAGEMENT

Purpose: To establish a standardized Program/Project Risk Management process across Naval Air Systems Command (NAVAIR) programs.

Definitions:

Risk is the potential for variation in the cost, schedule, or performance or its products. While such variation can include positive opportunities, risk is more generally considered to be the potential for a negative future reality .

Risk Management is an organized method for continuously identifying and measuring risk; developing mitigation options; and selecting, planning, and implementing the appropriate risk mitigations. Risk management is a process that evaluates the likelihood, or probability, of an undesirable event occurring; assesses the consequences, or severity, of the event should it occur; evaluates the sources or root causes of the risk; and identifies the available risk mitigations. Effective risk management depends on early identification and analyses of risk; risk management planning; early implementation of corrective actions; continuous tracking and reassessment; and communication, documentation, and coordination..

Risk Assessments are not to be confused with program performance assessments. If a risk is described in past tense the likelihood of occurrence is 100 percent; it has happened, and it is an issue. The important difference between an issue and a risk is that issue management is focused toward mitigating current effects, while risk management seeks to mitigate future effects and root causes. An issue and a risk are not necessarily independent or easily distinguished; the review of an issue might reveal a continuing risk from the unresolved root cause of the issues.

Source Documents:

DoD Directive 5000.1

DoD Instruction 5000.2

NAVAIRINST 5000.21 Program/Project Risk Management, 25 Jun 2003

NAVAIR Risk Management Handbook

DSMC Risk Management Guide for DoD Acquisition

Multiple commercial and DoD publications are available

NAVAIRINST 4355.19B Systems Engineering Technical Review Process, 25 Jun 2003

SETR Risk Assessment Checklists

Discussion:

Risk Management is basically comprised of four process elements:

Risk Identification – What can go wrong?

Risk Analysis - How big is the risk?

Risk Mitigation Planning – How can the risk be reduced?

Mitigation Plan Implementation – a PM function – How can the mitigation plan be implemented?

The source documents require PMs to establish, maintain and utilize an integrated risk management process. A formal Risk Management Board (RMB) and a Risk Management Plan (RMP) are required components of the risk management process.

NAVAIR risk reporting shall present standard likelihood and consequence screening criteria, as well as the standard risk matrix. The plotted position in the standard matrix should show the PM's current assessment of the risk's probability of occurrence, and the estimated severity of its effect on the program if mitigation fails. As risk mitigation succeeds in a program, a *yellow* or *red* risks position on the risk matrix will migrate in successive assessments from its current location toward the green. Each risk description should include three key elements;

- (1) a brief description of the risk;
- (2) a brief description of the root causal factor(s) for the risk, and
- (3) the proposed/planned mitigations that address the risk source(s) and effect(s).

The NAVAIR Risk Management Handbook is a supplemental publication that provides guidance and procedures for conducting program risk assessments. This document is accessible in the NAVAIR Microsoft Outlook Public

folders , under AIR-4.1G, and on the NMCI network at <https://syseng.navair.navy.mil>, under “National Management Implementation”. Additionally, Risk Assessment Checklists for each systems engineering technical review (SETR) are available on these sites.

POC: APEO(RDT&E) AIR-1.0, (301) 757-6640

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Section X: SOFTWARE INTENSIVE SYSTEM (SIS) ACQUISITION AND PROGRAM MANAGEMENT

Source Documents:

- (a) Interim Defense Acquisition Guidebook (formerly DOD 5000.2-R), Mandatory Procedures for Major Defense Acquisition Programs (MDAPs) and Major Automated Information System (MAIS) Acquisition Program
- (b) NAVAIRINST 5234.1; Policy on Software Evaluations for Naval Air Systems Command Programs
- (c) NAVAIRINST 5234.2; Requirements for Process Improvement Actions for Naval Air Systems Command Software Acquisition, Development, And Life-Cycle Support
- (d) NAVAIRINST 5234.3; Naval Air Systems Command Software Systems Leadership Operations and Organization
- (e) NAVAIRINST 5234.4; Naval Air Systems Command Independent Expert Program Reviews (IEPR) for Software Intensive Programs
- (f) NAVAIRINST 5234.5; Naval Air Systems Command Metrics for Software Intensive Programs
- (g) NAVAIR Software Strategic Plan
- (h) Office of the Under Secretary of Defense for Acquisition and Technology (OUSD AT&L) Report of Nov 2000; Report of the Defense Science Board Task Force on Defense Software
- (i) NAVAIRINST 4355.19B; Systems Engineering Technical Review Process and associated Risk Assessment Checklists

Attachment:

- a. Guidance for preparation of Sections L and M of NAVAIR solicitations regarding offerer software development process maturity.

Purpose: To provide NAVAIR policies and guidance on software intensive systems acquisition and program management.

Discussion: A Software Intensive System (SIS) is defined as any system where a significant portion or component of the functionality is implemented in software or where software presents the primary technical or programmatic challenge to the system developer. Expectations for systems capability and functionality are increasing in the commercial market place and within DOD. Demands and requirements for more capable, integrated, and user-friendlier systems are increasing. Since most system functionality is derived from software, it is rapidly becoming a significant, if not the most significant, portion of DOD acquisitions. Even traditional hardware procurement such as artillery systems now contains millions of lines of software code.

Performance data on software intensive programs in the DOD and the commercial market indicate appalling performance in both environments. A Standish Group Study published in 2000, included government and commercial programs and stated that only 28% of programs complete on budget and schedule, 23% are cancelled, and the remaining 49% have cost growth averaging 45% and schedule variance averaging 63%. In addition, the study indicates that the average final product consists of only 67% of its originally proposed features. The troubled DOD programs reviewed by Defense Science Board Task Force exhibited fundamental problems that were readily identifiable. Too often, programs lacked well thought-out, disciplined program management and/or software development processes. Meaningful cost, schedule, and requirements baselines were lacking, making it virtually impossible to track progress against them. In addition, there were numerous examples where the acquisition and/or contractor team lacked adequate software skills to execute the program. In one case, a program requiring more than 2 million lines of real-time embedded code was awarded to a contractor who had no meaningful software development experience. In general, the technical issues, although difficult at times, were not the

determining factor. Disciplined execution was. Toward this end, NAVAIR under the leadership of the System Leadership Council (SLC) and the Software Leadership Team (SLT) (NAVAIR INST 5234.3) has developed and implemented the following policies and guidelines for improving SIS acquisition and program performance in support of the NAVAIR TEAM Software Strategic Plan.

NAVAIR Policies and Guidelines:

- **Contract award for the acquisition of ACAT I, II, III, and IV Software Intensive Systems will only be made to contractors and subcontractors who have demonstrated successful software development capabilities equivalent to Software Engineering Institute (SEI) Software Capability Maturity Model (SEI SW-CMM) Level 3. Should this requirement not be met a risk mitigation plan must be submitted with the proposal to describe planned actions to substantially lower program risk. Attachment (1) provides guidance in the preparation of sections L and M of NAVAIR solicitations. (NAVAIRINST 5234.1)**

Interim Defense Acquisition Guidebook (formerly DOD 5000.2-R) suggests that DOD strengthen its past performance criteria and restrict program awards (for ACATS I and IA programs) to those who have demonstrated successful software development capabilities. In addition, the Defense Science Board Task Force recommended that software programs only go to those who have demonstrated SEI Software Capability Maturity Model (SEI SW-CMM) Level 3 or equivalent process maturity. Process certification or recertification should be no more the 24 months old. NAVAIR has extended this requirement to all software intensive programs, regardless of their ACAT classification.

- **Programs shall develop and execute a Plan of Actions and Milestones (POA&M) to implement, sustain and measure continued process improvement in software systems acquisition, development and life-cycle support. Minimum POA&M requirements shall include assessing baseline performance and capability. (NAVAIRINST 5234.2)**

The focus of this requirement is on utilization of the SEI Capability Maturity Model Integrated (CMMI), Personal Software Process/Team Software Process (PSP/TSP) and the Software CMM (SEI SW-CMM) as the basis for performance improvements. This requirement aligns with the Defense Science Task Force finding that the primary cause of poor program performance is lack of “disciplined execution”.

Additional Defense Science Board Software Task Force recommendations include:

1. Improve software skills of acquisition and program management.
2. Collect, disseminate, and employ best practices.
3. Restructure contract incentives.
4. Strengthen and stabilize the technology base.

- **Program plans for the acquisition of ACAT I, II, and III Software Intensive Systems will proactively include Independent Expert Program Reviews (IEPRs) at key program milestones or at recurring intervals to help Program Managers address issues of cost, schedule, technology, risk, and process and provide an opportunity to share scarce expert resources. (NAVAIRINST 5234.4) These reviews may be conducted concurrently with the Systems Engineering Technical Reviews (SETRs) prescribed by NAVAIRINST4355.19b, 25 Jun 2003.**

Interim Defense Acquisition Guidebook (formerly DOD 5000.2-R) suggests IEPRs for all ACAT I software intensive system programs and states that IEPRs shall also be considered for ACAT II-III programs, as well as any other system determined to merit such a review, by the Program Manager (PM) or other acquisition officials in the program chain of command, up to the Service Acquisition Executive (SAE). These reviews are intended to help the program team ensure that: disciplined processes and methodologies are in place. The review team should consist of government, academic, and industry experts who have program and software management skills, technical skills appropriate to the program, and requisite domain knowledge.

- **Programs acquiring software intensive systems shall establish and utilize software measures and metrics that are tailored to the program needs in order to manage the software efforts. These measures and metrics shall, as a minimum, provide visibility into financial performance, schedule performance, and product quality. They shall be collected and analyzed monthly throughout the life-cycle of the program. (NAVAIRINST 5234.5)**

Measurement serves as the basis for performance management and process improvement as it objectively assesses project progress toward achieving predetermined goals and objectives. The focus of this instruction is to promulgate a minimum set of software measures to enable programs to make sound engineering decisions throughout the program lifecycle. These measures include: requirements, size of effort, staffing, quality, maturity, capacity, schedule, cost, and time.

For more information, contact the NAVAIR Software Resource Center at (760) 939-0285.

Sections L & M in Request for Proposals (RFP)

5252.239-9500 – SOFTWARE DEVELOPMENT CAPABILITIES AND PROCESSES (2001) (NAVAIR)

USE: Use in Section L of solicitations requiring software development or upgrade(s) when the item being procured is considered to be a Software Intensive System (SIS). SIS is defined as any system where a significant portion or component of the functionality is implemented in software or where software presents the primary technical or programmatic challenge to the system developer. The following is an example of proposal instruction (Section L) language that may be used to meet DOD and NAVAIR policy on software evaluations. Similar words are acceptable as long as adequate information is requested to assess the software engineering capability level that the offeror has achieved and to assess risk mitigation plans if they have not yet achieved SEI SW-CMM Level 3 or equivalent. Past Performance information requested need not specifically identify software development since assessment of past performance regarding software or any other discipline for that matter is inherent in the past performance evaluation. Also the intent of the information requested under Technical/Management is that it be adequate enough to assess the offeror's SEI SW-CMM Level or equivalent without additional past performance information.

SOFTWARE DEVELOPMENT CAPABILITIES AND PROCESSES

For Technical or Management:

The following information shall be provided by the offeror, team members, and subcontractors at the business unit(s) engaged in the software development of Software Intensive Systems (SIS). SIS is defined as any system where a significant portion or component of the functionality is implemented in software or where software presents the primary technical or programmatic challenge to the system.

1. Identify the Software Engineering Institute (SEI) Capability Maturity Model (CMM) for Software (SW-CMM) or equivalent level of certification obtained through a Software Capability Evaluation.
2. Demonstrate how this level of certification applies to this solicitation. As a minimum, provide the following information:
 - a. Identify the agency/company that performed the Software Capability Evaluation and provide a point of contact's name, telephone number, and e-mail address.
 - b. Identify the date that the certification was obtained.
 - c. Identify the projects that were evaluated for the level of certification and demonstrate the degree of relevancy that those projects have to the technical requirements of this solicitation. Include a comparability analysis between the projects being performed when the level of certification was made and those of this solicitation.
 - d. What percentage of the software related personnel for this solicitation was a part of the business unit when it originally achieved its certification level? Demonstrate that these workforce changes did not affect the certification level or if it did address the risk mitigation actions taken or to be taken to avoid a reduction in the certification level.
 - e. Describe any significant changes to your software development processes since the capability evaluation was conducted. Show how these process changes did not adversely affect the certification level, or if it did address the risk mitigation actions taken or to be taken to avoid a reduction in the certification level.

3. If a SEI SW-CMM Level 3 certification or equivalent was not obtained or cannot be demonstrated, provide a Risk Mitigation Plan to account for the risk(s) associated with a software capability that is less than SEI SW-CMM Level 3 or equivalent. As a minimum provide the following:
 - a. Those process areas that failed to meet or exceed an SEI SW-CMM Level 3 or equivalent rating.
 - b. A schedule and plan that describes how the weaknesses that have prevented an SEI SW-CMM Level 3 or equivalent certification will be corrected.

For Past Performance:

1. The offeror shall identify recent relevant programs that provide evidence of its organization's (including subcontractors and/or team members involved with software development). Customer points of contact with telephone numbers and e-mail addresses shall be provided.

**5252.239-9501 – SOFTWARE DEVELOPMENT CAPABILITIES AND PROCESSES (FEB 2001)
(NAVAIR)**

USE: Use in Section M of solicitations requiring software development or upgrade(s) when the item being procured is considered to be a Software Intensive System (SIS). SIS is defined as any system where a significant portion or component of the functionality is implemented in software or where software presents the primary technical or programmatic challenge to the system developer. The following is an example of language that may be included in the evaluation criteria (Section M) language in order to meet DOD and NAVAIR policy on software development. Similar words are acceptable as long as they identify that software development (including risk mitigation plans) will be evaluated.

SOFTWARE DEVELOPMENT CAPABILITIES AND PROCESSES

The risk associated with the offeror's Software Engineering Institute Capability Maturity Model for Software (SW-CMM) Level of certification or equivalent and associated risk mitigation plans, if necessary, will be assessed.

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Section XI: INTEROPERABILITY ASSESSMENT PROCESS

Purpose: Interoperability reviews and assessments afford an early opportunity for ensuring uniformity and congruence in acquisition documentation. This topic discusses the process for NAVAIR review of Command, Control, Communications, Computers, and Intelligence (C4I) Support Plans (C4ISPs). In the future, the process will be expanded to include review of requirements documentation, including the Initial Capabilities Document (ICD) – formerly Mission Need Statement (MNS), and Capability Development Document (CDD/Capability Production Document (CPD) (formerly Operational Requirements Document (ORD) and the Capstone Requirements Document (CRD)

Source Documents:

DODD 4630.5, 12 November 1992

DODI 4630.8, 18 November 1992

DoD Acquisition Deskbook [being revised in concordance with the new Interim Defense Acquisition Guidebook (formerly DoD 5000.2-R)]

NAVAIRNOTE 5451, 18 August 1999 (NAIAO Charter)

Background: The Naval Aviation Interoperability Assurance Office (NAIAO) charter directs the NAIAO to act as the Naval Aviation focal point for the NAVAIR for all battlespace interoperability efforts, to coordinate team interactions, and to support program offices to enhance interoperability and provide Netric Centric Warfare (NCW) capability. The NAIAO, AIR-4.0E, is NAVAIR’s point of contact and primary interface with OPNAV, NAVSEA, SPAWAR, and other C4ISR&T and Test and Evaluation organizations for NCW interoperability issues. As a nexus among interoperability POCs, at these and other organizations, the NAIAO provides avenues to key persons for identification and resolution of interoperability problems. From this vantage point, the NAIAO strives to meet its goal of ensuring “that all reasonable alternatives to meet Naval Aviation battlespace network and interoperability needs are evaluated and that Science and Technology (S&T) and acquisition investments are complementary and properly focused as a corner-stone of a team strategy.” The NAIAO charter also directs that the PEO/PMAs “support interoperability in systems by ensuring that program reviews and decision meetings address interoperability aspects and certification in the design, development, and testing of the systems being reviewed and decided.” Pursuant to its charter, therefore, the NAIAO coordinates local reviews and assessments of interoperability and C4I supportability for naval aviation acquisition programs.

Objective: Review draft requirements and acquisition documents for existing or potential interoperability issues and recommend paths to their resolution. It is expected, as experience is gained and knowledge is shared, the interoperability assessment process will become an integral part of the document development cycle.

Participants: There are three levels of interoperability review and assessment. At the NAVAIR level, the NAIAO-coordinated Research & Engineering reviews involve representatives from various competencies within AIR-4.0. At the DoN level, the DASN(C4I/EW/Space)-coordinated reviews involve other DASNs, SYSCOMs, PEO/DRPMs, the ASN(RDA) CHENG, and DoN CIO. At the DoD level, the ASD(C3I)-coordinated reviews involve other DASDs, service components, the Fleet Commanders, Joint Staff, DISA, and DoD CIO. Each of these is conducted sequentially, looking at an increasingly wider scope, with the team-level review occurring first. A representative from each of the following Research & Engineering departments should be designated as a point of contact (POC) for AIR-4.0 C4ISP reviews:

- AIR-4.1 Systems Engineering
- AIR-4.5 Avionics
- AIR-4.6 Crew Systems
- AIR-4.8 Support Equipment and ALRE
- AIR-4.9 Training Systems
- AIR-4.10 Warfare Analysis

- AIR-4.7 Weapons/Targets

- AIR-4.11 Test & Evaluation Engineering

Process:

1. Originators forward copies of all draft C4ISPs to the NAIAO, which will coordinate the reviews for the R&E Group. To facilitate timely distribution, these drafts should be provided in digital format. Appropriate security procedures shall be followed for classified material.
2. A planning meeting is held to discuss specifics of the review. A representative from the submitting PM should attend the planning meeting to clarify assumptions and expectations.
3. The NAIAO distributes copies of the draft C4ISP to departmental POCs, along with a desired timetable for responses.
4. Departmental POCs examine the draft C4ISP to determine the divisions/persons with the applicable areas of expertise. POCs then coordinate the distribution of the draft C4ISP and the collection of comments and recommendations. Collected responses are forwarded to the NAIAO.
5. The NAIAO consolidates the departmental comments and recommendations into a single response to the originator of the draft C4ISP. Feedback copies are distributed to the departmental POCs.

Timeline: The DoD Acquisition Deskbook, Appendix C provides a notional timeline for C4ISP development. To accommodate the DoD-level review/certification cycle, they recommend beginning the process at least one year prior to an upcoming milestone, with initial submission to OASD(C3I) at six months prior. However, in order to accomplish team level review before submission to DoD, programs should start C4ISP preparation even sooner. The interoperability assessment process should be completed within 30 days.

Interfaces with External Activities: The DoD policy stated in DODD 4630.5 is “that, for purposes of compatibility, interoperability, and integration, all C3I systems developed for use by U.S. forces are considered to be for joint use.” Accordingly, DoD-level assessments are performed to determine the degree of “compatibility, interoperability, and integration with current or planned systems of the other DoD Components, or between one or more DoD Components and one or more allied nations, or both.” [DODI 4630.8] Therefore, reviewing departments, while remaining within the given releasability limitations of the draft document, are encouraged to seek external corroboration of system interfaces and operational activities within their purview. For the benefit of future assessments, any such liaisons should be documented and collected as lessons learned.

Issue Resolution: All comments and recommendations will be consolidated by the NAIAO and forwarded to the submitting PM. Resolution of issues raised is the responsibility of the originating organization. The NAIAO can facilitate this process through its extensive points of contact.

POC: Naval Aviation Interoperability Assurance Office, AIR-4.0E, (301) 757-3257

CHAPTER XI: KEY TOPICS

PART H: Engineering Disciplines

Section XII: BATTLE FORCE INTEROPERABILITY PROGRAM

Purpose: This section is intended to help acquisition managers understand the NAVSEA managed Battle Force Interoperability process as it applies to new, upgraded, and existing NAVAIR systems. It also identifies key milestones requiring acquisition manager inputs and processes to ensure seamless integration of systems into a deploying Battle Force.

Source Documents:

CNO 021648Z MAY 98 (Battle Group Interoperability)

Memorandum of Agreement between NAVAIR, SPAWAR, and NAVSEA dtd 12 August 1999 (Collaboration on Interoperability)

CINCLANTFLT/CINCPACFLT INSTRUCTION 4720.3A (Management of Afloat Combat and C4I Systems)

CINCLANTFLT/CINCPACFLT 251912Z MAY 00 (CPF/CLF 4720.3A Adaptation to Forward Deployed Naval Forces (FDNF))

NAVSEAINST 4720.17 (DRAFT) (Battle Force Interoperability)

NAVSEAINST 4720.18 (DRAFT) (Warfare Systems Platform Level Software Certification)

CINCLANTFLT/CINCPACFLT 162056Z AUG 00 (IT-21 Shipboard Configuration Management Policy and Procedures)

CINCPACFLT 092227Z FEB 01 (IT21 Configuration Change Message Format)

NCTSI INSTRUCTION 9410.1 Series (Procedures for Certification of TADIL and C4I Systems Procedural Interoperability)

CINCPACFLT/CINCLANTFLT INSTRUCTION 4720.4A (Battle Group Systems Integration Testing Process)

Background: In the past decade, the Fleet has seen a significant growth in tactical networking capabilities such as LINK-11, LINK-16, and Cooperative Engagement Capability (CEC) as well as the shipboard implementation of the IT-21 Local Area Network (LAN). The resultant effect of the integration of this new technology is the potential for rapid, accurate exchange and display of administrative, tactical and strategic data never before possible among all echelons of the Navy Battle Force. At the same time, this level of integration of previously independent combat platforms has led to increased interoperability challenges that need to be addressed prior to actual deployment of Battle Forces. As a result, CNO assigned NAVSEA central responsibility to address Battle Management Command, Control, Communications, Computers, and Intelligence/Combat Systems (C4I/CS) issues. NAVSEA 05 was assigned as the focal point for coordination and resolution of battle force interoperability issues and establishment of processes for defining, controlling, and certifying each Battle Force configuration prior to deployment. NAVSEA and OPNAV were to coordinate with the Fleet Commanders to develop and implement the improved Battle Force interoperability process that would be managed by NAVSEA. The NAVSEA responsibility currently resides in NAVSEA 53.

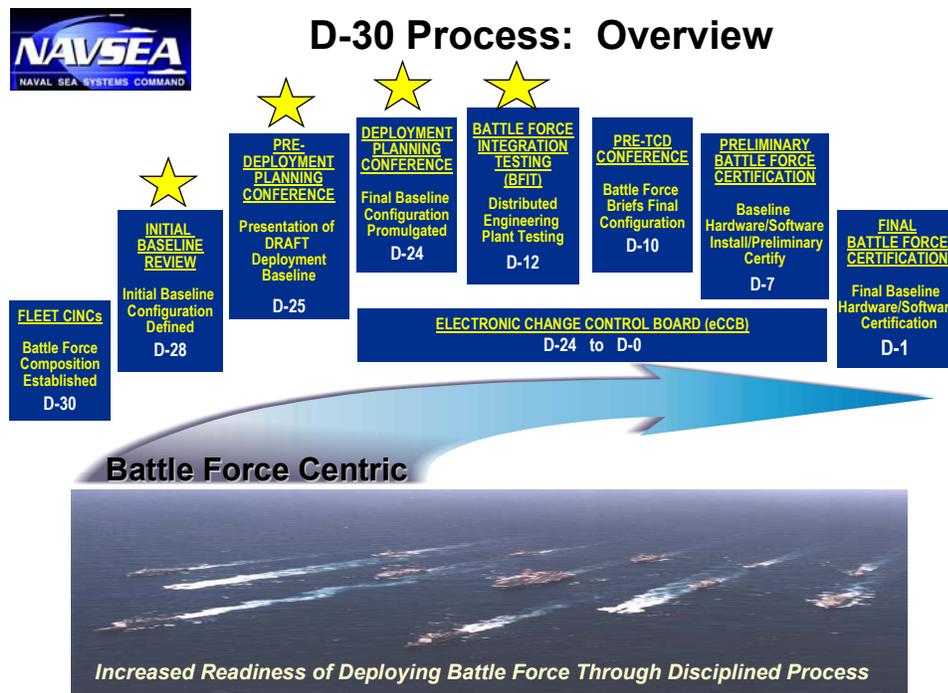
NAVSEA assisted the Fleet Commander in developing the Battle Force Interoperability (BFI) Process, commonly called the "D-30" process, since the configuration and testing of each Battle Group/Amphibious Ready Group in preparation for deployment commences 30 months prior to actual deployment. The D-30 process was published as a Guidance and Policy Paper (G&PP) by NAVSEA. The Fleet Commanders subsequently published CINCLANTFLT/ CINCPACFLT INST 4720.3A formalizing the process. NAVSEA has developed a companion NAVSEA INST 4720.17 (Draft). The process is focused on C4I/CS systems (primarily Link 16 data links, other shipboard emitting systems and their internal IT-21 networks). The process details the initiation, approval, scheduling, and capabilities and limitations of combat systems and C4I installations within each Battle Force. The process makes allowances for emergent changes to the final baseline configuration due to technology insertion and emergent operational requirements.

Discussion:

Overview: The Battle Force Interoperability Process was developed to provide an orderly process and procedures for the efficient implementation of combat systems and C4I systems across the operational Battle Force (BF). The primary intent of the process is to ensure the combat deployers (Carrier Battle Group (CVBG), Amphibious Ready Group (ARG) with embarked Marine Expeditionary Unit (MEU), Pacific Fleet Middle East Force (PACMEF), and Mine Warfare Readiness Group) receive improved, certified warfighting technologies in order to achieve the highest possible degree of warfighting capability and interoperability.

The process currently applies to NAVAIR-produced systems that have combat systems and/or interoperability considerations. This includes shipboard systems such as Air Traffic Control and IFF; aircraft systems utilizing Link 16 such as F-14D and E-2C; and systems that integrate on the IT-21 network such as mission planning and various administrative logistics and training systems. It is expected new combat systems will fall under this process as they mature (e.g. F/A-18 MIDS).

The process overview is shown below. The process is 30 months in length commencing with designation of the Battle Force composition by the Fleet Commander at deployment date minus 30 months (D-30) and ending with the actual deployment of the Battle Force.



* CINCLANTFLT/CINCPACFLT Instruction 4720.3A (signed 27 APR 00)

Key milestones of the process are:

- D-28 -- Initial Baseline Review – Attended by SYSCOM and PEO representatives to review the proposed baseline configuration of systems for the Battle Force.
- D-26 -- SYSCOMs and PEOs review requests for unfunded requirements.
- D-25 -- SYSCOM and PEO representatives present draft Deployment Baseline Configuration at Pre-Deployment Planning Conference.
- D-24 -- Final Baseline Configuration is established by the applicable Fleet Commander. Any changes to the baseline configuration after this point will require Fleet Commander approval through an electronic CCB process (e-CCB). SYSCOM and PEO representatives brief the Baseline Review Board (BRB) at the Deployment Planning Conference. SYSCOMs and PEOs promulgate POA&M for installation including schooling and training. NAVAIR 4.0 is voting member of the BRB.
- D-18 -- SYSCOMs and PEOs begin combat systems integration testing.
- D-13 -- SYSCOMs and PEOs complete combat systems integration testing.
- D-12 -- SYSCOMs and PEOs commence Battle Force Integration Testing (BFIT) utilizing the shorebased Distributed Engineering Plant (DEP).
- D-6 -- Target Configuration Date (TCD). All scheduled upgrades should be completed. Any configuration changes after this date requires a TCD waiver by the Fleet Commander based on submission of a "TCD Offer" (or "A-through-O") message.
- D-5 -- Fleet Commander conducts Battle Group System Integration Testing (BGSIT) at sea.

Key Aspects:

Battle Force composition: At D-30, the applicable Fleet Commander will notify via naval message the systems commands as to which ships will compose the Battle Force (BF). With that information, the systems commands can begin their installation planning.

Initial Baseline Review (IBR): At D-29 NAVSEA 53 will put out a data call for expected system configurations unique to the deploying Battle Force (e.g. Kitty Hawk/Essex '03). The form of the data call will be a master SEA53H Afloat Master Planning System (AMPS) database with complete instructions. Database inputs are made "on-line" into the AMPS website. The consolidated responses will be the initial NAVAIR baseline submissions to the D-30 process and the resultant D-28 IBR.

Baseline Review Board (BRB): Between D-28 and D-24, modifications to the initial baseline will be requested in the same manner as the initial baseline request. It is essential that accurate configuration information be provided at this time since any further configuration changes will require Fleet Commander approval through the e-CCB process. AIR 4.0E will attend the BRB as the NAVAIR representative and a voting member.

Electronic Configuration Control Board (e-CCB) Process: The Fleet Commander must approve any changes to the baseline configuration of systems after the BRB (D-24) following review by the Configuration Control Board. The e-CCB membership consists of various stakeholders in the process including AIR-4.0E. PMs developing and/or upgrading C4I combat systems must ensure that any change to these systems (software upgrade, hardware upgrade,

cancellation of upgrade, etc) is submitted to the e-CCB for approval. AIR-4.0E will assist in the submission of the required risk forms to the e-CCB and coordinate/advocate for approval.

Target Configuration Date (TCD) Waiver Process: The TCD is a point at D-6 where all planned installations and the ILS Plan (including crew training) in the BF are complete. No further upgrades to systems are allowed for the deploying Battle Force unless a waiver is requested and approved. The Fleet Commander will approve TCD waivers after coordinating with TYCOMs and Battle Force Commanders. Key decision factors are: increased value to warfighter; impact on training and testing; impact if installation does not occur; risk; extent of upgrade; proposed installation date. Requests for waiver will be made via the "A-O" message. AIR-4.0E will coordinate and assist in development of TCD waivers.

A-O Process: The A-O process is required to request a non-standard system installation or any installation of software/hardware associated with C4I/Combat Systems after TCD. CINCLANTFLT/CINCPACFLTINST 4720.3A specifies the format for the A-O message. The PM must submit the message for approval directly to the Fleet Commander. AIR-4.0E will coordinate and assist in the preparation and submission of the A-O message.

Action Item Process: Throughout the D-30 process, action items for NAVAIR are received. The actions may be configurations of systems, resolution of problems identified in testing (BFIT, BGSIT), responses to A-O messages, etc. AIR-4.0E is the focal point for action items received throughout the D-30 process. As such, all actions and issues will be received by AIR-4.0E and coordinated with the appropriate PMA for resolution. Conversely, any issues with the process should be addressed to AIR-4.0E for resolution.

Certifications: System level certifications are normally obtained as a part of the acquisition process. Certain certifications are reiterated here since they apply specifically to C4I/Combat Systems subject to the Battle Force Interoperability process.

IT-21 Compatibility: Fleet Commanders have defined a policy and procedures for IT-21 shipboard configuration management. They have established the Preferred Product List (PPL), System/Subsystem Interface List (SSIL), and Qualified Parts List (QPL) as the controlling authority for systems, computer programs, and hardware to connect with the IT-21 afloat network. The PPL consists of approved and tested software demonstrated not to interfere with network applications and approved for installation on the IT-21 LAN. The SSIL consists of SYSCOM recommended systems verified as interoperable with the IT-21 LAN (e.g. TAMPS). The QPL consists of approved and tested hardware demonstrated not to interfere with IT-21 network applications or system configuration.

The PPL/SSIL/QPL certification process includes: Naval Change Request (NCR) submission; NCR endorsement by Fleet Commanders ; requirements submission; systems engineering review (pre-testing); SPAWAR testing; systems engineering review (Post testing); configuration control review board approval; addition to PPL/SSIL/QPL listing.

It is critical to obtain certification of either new systems/software or upgrades that interface with the IT-21 LAN to ensure acceptance by operational commands. Refer to CINCLANTFLT/CINCPACFLT 162056Z AUG 00 (IT-21 Shipboard Configuration Management Policy and Procedures) or the Joint Data Management Server <https://jdms.spawar.navy.mil/index.asp> for information and procedures for certification.

NCTSI: The Navy Center for Tactical Systems Interoperability (NCTSI) is assigned as the Chief of Naval Operations (CNO) representative responsible for certifying the interoperability of U.S. Navy tactical data systems used in fleet operations or in support of Joint or Allied operations. NCTSI conducts certification testing as directed by CNO. NCTSI reports interoperability certification status for Battleforce Interoperability at D-28, D-15, and D-9. NCTSI also participates in Distributed Engineering Plant (DEP) testing discussed in the following paragraphs.

NCTSI C4I procedural interoperability testing is accomplished through standards compliance and multiple interface or distributed system testing to ensure accurate presentation of tactical data is shared by all systems on a network or data link. This procedural interface testing includes accuracy of data transmission, data forwarding, and display of tactical data. Systems communicating over multiple interfaces have all interfaces examined during interoperability certification, ensuring all participating systems in the network or data link maintain an equivalent tactical picture.

Trouble reports are then written by the test director describing any problems encountered. Subsequently, a certification letter is issued if the system has no significant interoperability problems.

NCTSI INSTRUCTION 9410.1 SERIES specifies procedures required to accomplish certification testing and developmental testing to standards and interoperability. The certification process includes: scheduling, test preparation, test conduct, on-line analysis, post test analysis, and certification determination. Certification requires close coordination between NCTSI San Diego and the platform/system under test using remote connections or on-site at the activity under test.

NCTSI funds one (1) Certification Test (CT) per platform/build. Additionally, in an effort to strengthen Navy interoperability, NCTSI will fund one (1) Developmental Test (DT) per fiscal year for new and modified TADIL/C4I Systems fielded for fleet release.

Following successful completion of NCTSI certification, all US Navy TADIL/C4I systems must be tested for Joint Procedural Interoperability Certification through the DISA (JITC).

DISA (JITC): For explanation of DISA (JITC) certification refer to Chapter VI Part C, "Interoperability" of this Guide.

Testing:

Distributed Engineering Plant (DEP): Within the D-30 process, the DEP is the engineering tool that has been developed to exercise overall Battle Force Interoperability prior to actual deployment. The DEP is a collection of stand-alone land-base laboratory facilities located throughout the country that have been linked together using a common network architecture. Collectively the above mentioned laboratories or "DEPs" comprise the core of the computer driven combat systems associated with today's modern Battle Force. Currently, NAVAIR laboratories for the F-14D and E-2C are a part of the DEP. It is anticipated that more NAVAIR laboratories will be integrated into the DEP as required to meet interoperability requirements.

In general, the DEP systems tested fall into four major areas as follows: Sensor Control, Weapon Control, Command & Decision, and Communications. Once the baseline configuration of the Battle Force has been established a dedicated Battle Force Interoperability Test (BFIT) is conducted utilizing the DEP. The BFIT is initiated at approximately D-12 in the overall D-30 program. Prior to initiation of BFIT, a Test Readiness Review is held with the Fleet Commanders and appropriate SYSCOM representatives in attendance. NAVAIR will be represented by AIR- 4.0E and appropriate subject matter experts for DEP tested systems.

The primary objective of the DEP is a characterization of the interoperability of the subject Battle Force. The process begins with the cataloging of anomalies discovered during the test in the form of Trouble Observation Reports (TORs). At the conclusion of each phase of testing, TORs are forwarded along with supporting sets of extracted data to the responsible combat system Software Support Activity. To assist in the rapid assignment and resolution of problems discovered, a Data Collection and Management Committee (DCMC) was created utilizing subject matter experts from each system under test. The NAVAIR representatives to the DCMC are normally the lead laboratory test engineers for each laboratory involved in DEP testing. The DCMC analyzes all TORs and converts valid problems into Trouble Reports (TRs) against the combat system that experienced the anomaly. The lead laboratory engineers then investigate the TRs to confirm validity. The final step in the post test data flow is the BFIT Analysis Review Panel (BARP). The BARP is a formal panel where high priority TRs are presented and discussed with the fleet. NAVAIR will provide a member supported by platform subject matter experts, Test Engineers, and Program Office representatives as required. Additionally, fleet representatives from the subject Battle Force have membership on this panel.

Several weeks after the BFIT, a formal Test Report is generated for the Battle Force. This is a comprehensive document that captures the overall test objectives, test configuration, test execution details, and test results for each BFIT. Additionally, a Capabilities and Limitations Document (CAPs and LIMs) is produced. This document is a formal method of reporting the capabilities of the Battle Force as well as identifying limitations arising from known

problems that cannot be fixed prior to deployment. Additionally, the CAPs and LIMs document provides operational workarounds for those issues identified through BFIT/BGSIT. All TRs discovered during testing should be entered into appropriate combat system program office databases as well as the NAVSEA-53H master database. This ensures that anomalies will be tracked by cognizant program offices and fixed within the priority structure of the individual program.

Battle Force System Integration Test (BGSIT): BGSIT is a Fleet Commander directed program designed to provide a comprehensive validation of "total force system" performance prior to overseas deployment. It considers the Battle Force sensors and networks as a single C4I/combat system designed to function in an integrated and complementary manner. The process focuses on providing commanders with a higher level of confidence in system operations by identifying system limitations, coordinating resolution of problems, and assisting in determining potential work-around options for system limitations that cannot be resolved prior to deployment. The BGSIT consists of Preliminary Assessment, Problem Definition Surveys, and Final Integration testing. NAVAIR PM involvement in BGSIT involves providing "subject matter experts (SME)" on applicable systems to oversee and help with the BGSIT test. PM involvement in post-BGSIT is one of coordination in the resolution of reported issues. Issues are reported by the Fleet Commanders BGSIT office by naval message, and AIR -4.0E will contact individual PMs for action and resolution if appropriate.

Issues: The Battle Force Interoperability process is enforced by the Fleet Commanders. Failure to obtain required certifications, particularly IT-21 compatibility certification may result in denial of an IT-21 linked system/upgrade installation on a ship. Failure to adhere to established processes might result in denial of configuration changes to existing systems and installation onboard ship. Early and continual interface with AIR-4.0E for interoperability issues is of the essence.

Summary: While not involved in an acquisition milestone, the Battle Force Interoperability process requires Program Manager attention to ensure that the fielded system is interoperable with given Battle Force components and timely upgrades to the system are accepted in the Fleet, giving them the latest in war fighting capability.

Information on the WEB:

<http://www.navsea.navy.mil/folders/frame-products.html>

<https://jdms.spawar.navy.mil/index.asp> (IT-21)

<http://www.nctsi.spawar.navy.mil> (NCTSI)

POC: AIR-4.0E, (301) 757-3252

(DEP), (760) 939-2086

(IT-21 Certification), PMW-165, (619) 524-7812

(NCTSI Certification), NCTSI N7, (619) 553-7315

CHAPTER XI: KEY TOPICS

PART H: Engineering Disciplines

Section XIII: DEFENSE NETWORK (DNET)

Purpose: The Naval Air Systems Command (NAVAIR) Defense Network (DNet) is a networked environment or infrastructure which enables NAVAIR facilities to support interoperability research, development, test, and evaluation (RDT&E) of naval air platforms in network centric warfare battlespace environments. The initial operating capability integrated nine laboratories and ranges within NAVAIR via flexible interfaces including HLA and an integrated series of tactical communications links to establish a re-configurable RDT&E federation. These sites are physically connected via a high-speed, secure ATM network known as the DREN.

Source Documents: DoDD 5000.1, DoDI 4630.8, CJCSI 3170.01C, and CJCSI 6112.01B.

Discussion: The NAVAIR DNet established a secure infrastructure for evaluating network centric warfare RDT&E concepts within NAVAIR and across other service and industry battlelabs and ranges. This capability is used to ensure that Naval and Joint C4I systems are designed, developed, and tested in a realistic, cost effective mission-space environment to achieve systems interoperability and provide effective systems for the warfighter. The combined infrastructure provides an environment for hardware-in-the-loop (HWIL) representations of platforms and systems, tactical and strategic datalinks, Open Air Range (OAR) links to live aircraft, weapon systems, models and simulations, stimulators, instrumentation and data display and analysis tools. The DNet environment allows and facilitates different levels of fidelity as systems are developed and tested in a battlespace that combines modeling and simulation with open air range testing and training.

The initial nine laboratories and ranges that constitute the NCW RDT&E DNet federation include the following:

- F/A-18 Advanced Weapons Laboratory, NAWCWD, China Lake, CA
- Integrated Battlespace Arena (IBAR), NAWCWD, China Lake, CA
- Land Range, NAWCWD, China Lake, CA
- F-14 Weapon System Integration Center, NAWCWD, Pt. Mugu, CA
- Sea Range, NAWCWD, Pt. Mugu, CA
- Air Combat Environment Test & Evaluation Facility, NAWCAD, Patuxent River, MD
- E-2C System Test and Evaluation Laboratory, NAWCAD, Patuxent River, MD
- P-3 Air Surface Warfare Improvement Program Laboratory, NAWCAD, Patuxent River, MD
- Atlantic Test Range, NAWCAD, Patuxent River, MD

Major resources provided by the NCW RDT&E DNet are as follows:

- Various environment generators such as the Integrated Joint Interim Mission Model (JIMM) Warfare Environment
- F/A-18, F-14, P-3, and E-2C HWIL Platforms
- Multiple weapon HWIL environments including Sidewinder, SLAM-ER, RAM, ESSM, and DAMASK
- Multiple weapon signal processor in the loop laboratory environments
- Link 4, Link 11, and Link 16 HWIL Systems and Stimulators for multiple platforms
- Global Positioning Systems, Communications, and IFF Stimulators
- OAR electronic warfare, communications, and datalinks
- Full aircraft telemetry and instrumentation suites
- Data reduction and analysis tools

Additional resources will be added to the infrastructure as needed to support future Navy and Joint test requirements.

Network Connectivity: Use of the DNet requires network access to the secure Secret Defense Research and Engineering Network (SDREN). Based on the specific program RDT&E requirements and existing network and communication capabilities in the desired laboratories and ranges, the DNet System Architect will provide connectivity requirements to utilize the following capabilities:

- Network encryption
- Network switches (ATM) and routers
- Secure Voice
- Tactical Voice (radios)
- Secure Video
- Real-time telemetry

POC: AIR-470H00D, (760) 939-2086

CHAPTER XI: KEY TOPICS

PART I: CORE LOGISTICS CAPABILITIES, TITLE 10, US. CODE, SECTION 2464

Statutory Requirement for Core Logistics Capabilities within Public Depots

The statutory requirement for “core” depot-level maintenance and repair capability has been in place since the early 1980s, but has gained greater recognition since the release of more precise language in November 1997. Depot-level maintenance and repair workloads are much more desirable to the private sector now than ever before, due primarily to fewer “new start” programs, the Government’s desire to use innovative contracting approaches, and the private sector’s need to diversify. Core represents the minimum amount of maintenance/repair capability that the DoD Components must maintain in organic depot facilities to ensure contingency operations are not compromised because of lack of essential depot-level repair support.

Title 10, U. S. Code, Section 2464, Core Logistics Capabilities, requires DoD to maintain a core logistics capability that is Government-owned and Government-operated (including Government personnel and Government-owned and operated equipment and facilities) to ensure a ready and controlled source of technical competence and resources necessary to ensure effective and timely response to a mobilization, national defense contingency situations, and other emergency requirements.

Exclusions are defined as systems and equipment under special access programs, nuclear aircraft carriers, and commercial items or commercial items with minor modifications to meet Federal Government requirements. Additionally, consideration is given to existing capability that resides within DoD.

The statute states that core capabilities identified must include those capabilities necessary to maintain and repair the weapon systems and other military equipment identified to fulfill the strategic and contingency plans prepared by the Chairman of the Joint Chiefs of Staff (including establishment of an organic depot maintenance capability no later than four years after initial operational capability (IOC)).

To comply with statutory requirements, NAVAIR applies a methodology prescribed by DoD to determine core capability requirements and the workloads required to sustain that capability. The core determination and workload quantification stems from the weapon systems identified to support the latest JCS planning scenario(s); whether statutory exclusions are applicable; if capability exists within DoD; as well as a computation that results in a quantity of core-sustaining workload.

Simply stated: Core is capability; capability consists of the skills/artisans, equipment, and facilities needed to accomplish the maintenance and repair; and specific workload sustains that capability by exercising the artisans’ skills and confirming the availability of specialized equipment, tooling, and facilities.

It’s important for acquisition program officials to consider the outcome of the core analysis to ensure compliance with statutory requirements and because the core or non-core determination has a bearing on the maintenance support concept and follow-on budget exhibits. For these reasons, it’s imperative that the core analysis be performed in the early stages of an acquisition program’s life cycle to preclude impediments to the program’s progress later on. Additionally, the core determination is required as input to the Depot Maintenance Interservice (DMI) submission and included in the ILA checklist. Disregard for the Title 10 requirements could impact the approval to proceed to the next milestone.

POC: AIR-6.1.1.2, (301) 757-8611 or (301) 757-8714

CHAPTER XI: KEY TOPICS

PART J: CLINGER-COHEN

Background - The Clinger-Cohen Act (CCA) (formerly known as the Information Technology Management Reform Act) was enacted in 1996. The CCA repeals Section 111 of the Federal Property and Administrative Services Act of 1949 (40 U.S.C. 759), which was often referred to as the Brooks Act, and gave the General Services Administration (GSA) exclusive authority to acquire computer resources for all of the Federal government. It assigns overall responsibility for the acquisition and management of information technology (IT), previously referred to as Federal Information Processing (FIP), in the Federal government to the Director, Office of Management and Budget (OMB). It also gives the authority to acquire IT resources to the head of each executive agency and makes them responsible for effectively managing their IT investments.

Primary purpose - To streamline IT acquisitions and emphasize life cycle management of IT as a capital investment. The key acquisition actions were to:

- Give IT procurement authority back to agencies
- Eliminate the Federal Information Resources Management Regulation (FIRMR) which governed acquisition and management of FIP (computer and telecommunications) resources
- Move the General Services Board of Contract Appeals authority to hear bid protests on IT contracts to the General Accounting Office (GAO)
- Encourage incremental acquisition of IT systems
- Encourage the acquisition of commercial off the shelf (COTS) IT products
- Allow the Administrator for Federal Procurement Policy to conduct pilot programs in Federal agencies to test alternative approaches for acquisition of IT resources

Key IT management actions:

- Design and implement an IT management process for maximizing the value and assessing and managing the risks of the IT acquisitions
- Integrate the IT management process with the processes for making budget, financial, and program management decisions
- Establish goals for improving the efficiency and effectiveness of agency operations and, as appropriate, the delivery of services to the public through the effective use of IT, and prepare an annual report, to be included in the agency's budget submission to Congress, on the progress in achieving the goals
- Ensure performance measurements are prescribed for IT by, or to be acquired for, the agency, and that they measure how well the IT supports the agency programs
- Appoint a Chief Information Officer (at NAVAIR this is Ms. Susan Keen (AIR-7.0A))
- Inventory all computer equipment and maintain an inventory of any such equipment that is excess or surplus property

Definition of Information Technology (IT) - Any equipment, or interconnected system or subsystem of equipment, used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information. The term "equipment" means any equipment used by the DoD Component directly or used by a contractor under a contract with the Component requiring the use of such equipment, or the use, to a significant extent, of such equipment in the performance of a service or the furnishing of a product. The term "IT" includes computers, ancillary equipment, software, firmware, and similar procedures, services (including support services), and related resources. The term "IT" also includes National Security Systems. It does not include any equipment that is acquired by a Federal contractor incidental to a Federal contract. (*DoD Directive 5000.1, May 12, 2003*)

The CCA applies to all federal executive agencies and all software-intensive domains. It applies to and combines automated information systems, command, control (C2), communications (C3), computer (C4), and intelligence (C4I) systems and embedded systems.

IT Capital Planning - In accordance with the CCA, NAVAIR instituted an IT Capital Planning (CP) process to build a comprehensive portfolio of IT investments and enable NAVAIR leadership to make smarter strategic decisions.

IT CP is a process that achieves measurable improvements to mission outcomes by helping decision-makers link IT investments to their organization’s mission. The process provides intelligent views of both individual and inter-related IT investments.

The IT CP process is enabled by the implementation of the Information Technology Investment Planning System (ITIPS), a decision support and management tool that integrates IT approval, portfolio planning and budget. The Web-based application ranks and prioritizes IT projects and investments with an easy-to-use “point-and-click” environment. The Federal Chief Information Officer (CIO) Council and Department of Energy developed ITIPS to follow the Select-Control-Evaluate Model for IT investments. A key feature of ITIPS is the application's adaptability for the IT investment objectives of diverse organizations.

The IT CP process receives critical input from the horizontal integration efforts managed by the NAVAIR Chief Information Officer (CIO). Through this process, all initiatives are properly screened to match all applicable architectural and process guidelines before moving forward as initiatives.

For more information about the IT CP process, please contact Liz Medved at (301) 342-7412 or DSN 342-7412.

Responsibility for IT oversight – Interim Defense Acquisition Guidebook (formerly DoD 5000.2-R), (Mandatory Procedures for Major Defense Acquisition Programs (MDAPs) and Major Automated Information Systems (MAIS) Acquisition Programs) provides implementing policy and guidance for IT acquisitions (including for other than MDAPs or MAIS acquisition programs).

NAVAIR responsibility for IT management, approval and oversight of IT acquisitions – There are two distinct IT ‘sides of the house’ within NAVAIR. On the non-tactical side of the IT house, IT approval authority is delegated as follows:

SYSCOM Commander –



Chief Information Officer (Susan L. Keen) -

Authority delegated up to \$126M for total program costs (not to exceed \$32M in any fiscal year) and \$378M total life cycle costs. (301-757-7790)



Deputy Chief Information Officer (Kathy L. Steele) - Milestone Decision Authority (MDA)

Team Leader (301-342-4799)



Site MDA’s --- Each site is assigned an MDA who has been delegated up to \$2.5M IT approval authority by the CIO.

A complete list of the NAVAIR non-tactical MDA’s follows:

Site	MDA	Phone
NADEP Cherry Point	Earl Delmastro	(252)-464-7210
Alternate	Mary Winslow	(252)-464-7211

NADEP Jacksonville Alternate	Richard Wisniewski David Ingram	(904)-542-2693 (904)-542-3658
NADEP North Island Alternate	Dennis Araujo Jim Felty	(619)-545-3345 (619)-545-3367
NAVAIRHQ	Kathy Lambert	(301)-342-4773
NAWCAD Lakehurst	Greg Cook	(732)-323-2248
NAWCAD Patuxent River St. Inigoes	Bob Greenblatt	(301)-342-4812
NAWCWD China Lake Alternate	Jay Crawford Bonnie Jones	(760)-939-9738 (760)-939-1557
NAWCTSD Orlando	Allan Lang	(407)-380-8139

The Program Executive Officers (PEO) tactical side of the house has Points of Contact (POC) assigned to help with IT management, approval and oversight. They are:

- (301)-757-5395 PEO (A): PMA257, PMA261, PMA 264, PMA271, PMA273, PMA274, PMA275, PMA276, PMA290, PMA299
- (301)-757-4557) PEO (T): PMA231, PMA233, PMA234, PMA241, PMA259, PMA265, PMA272, PMW101
- (301)-757-6444) PEO(W): PMA201, PMA208, PMA242, PMA258, PMA263, PMA280, PMA281, PMA282, PEO(W) CT
- (301)-757-6604) AIR-1.0: AIR-1.1, AIR-1.4, AIR-1.6, PMA202, PMA203, PMA205, PMA207, PMA209, PMA213, PMA222, PMA225, PMA226, PMA248, PMA251, PMA260, PMW/A156

These designated POC's will forward documentation to the appropriate PEO or DRPM.

Most important items to remember - The following lists important IT related considerations for the contract specialist:

- a.) If a contract contains IT resources (computer hardware, software, hardware maintenance, support services or telecommunications) it MUST receive IT approval prior to contract award. Failure to do so will result in the illegal awarding of an IT contract.
- b.) Prior to awarding an IT contract for software you should check to ensure NAVAIR does not have an enterprise software license in place. An enterprise license is a signed contract with a software vendor that provides NAVAIR with a vehicle to acquire deeply discounted software. Please refer to web site <http://cio.navair.navy.mil> -- please click the Planning and Investment button located on the left-side toolbar and then click 'Enterprise Licenses'.
- c.) Supplies (such as computer diskettes, ZIP/JAZZ cartridges, laser toner cartridges, etc.) are no longer (with the implementation of the CCA) considered to be IT and thus do not require IT approval.

- d.) Per ASN directive of 19 Oct 00 (also available at the CIO web site mentioned above) IT contracts valued at \$25K or greater cannot be awarded without prior review/approval by a Flag/SES rank individual. This directive was issued to ensure a smooth transition period to the Navy Marine Corps Intranet (NMCI), and to avoid a duplication of expenditures for IT capabilities that are available under NMCI. Review forms are to be submitted to Kathy Steele at email address steelekl@navair.navy.mil. The forms can also be found at the CIO web site under the Planning and Investment section.

POC: (AD-7.0D) Bldg. 440, Room 24, (301) 342-4812

CHAPTER XI: KEY TOPICS

PART K: SMART SOURCING

Discussion:

The NAVAIR Smart Sourcing process promotes communication, awareness, and integration of Command resources in the decision to outsource a particular service requirement or to perform that requirement in-house, using internal NAVAIR resources. The process enables Task Owners seeking to fulfill service requirements to make those requirements available for internal review by Command Resource Owners prior to an outsourcing decision. The process thus enables Resource Owners to identify requirements which can be performed in-house, and to provide a proposal, including work years and dollars, to fulfill that requirement. The Smart Sourcing process then documents the Task Owner's final decision to either fulfill the requirement in-house, issue a contract action for the requirement through AIR-2.0, or send funds offsite for the requirement to be fulfilled by another agency.

Policy:

The NAVAIR Smart Sourcing process applies to all tasks for services in excess of \$75K that are expected to result in a contract action or in funds being sent to another government agency outside NAVAIR with the following exemptions: services actions under hardware contracts, orders under blanket purchase agreements (BPAs) for customers external to NAVAIR, actions for System Development and Demonstration (SD&D) (formerly Engineering and Manufacturing Development (E&MD)), actions for Small Business Innovation Research (SBIR), and Broad Agency Announcements (BAAs) for advance/applied research. All Smart Sourcing actions are processed via the NAVAIR Smart Sourcing Web Tool at <https://smartsourcing.navair.navy.mil>. In addition, this site contains the NAVAIR Smart Sourcing Handbook, which provides detailed policy, definitions, and procedures for the Smart Sourcing process. The site also contains training on Smart Sourcing policy and use of the automated web tool, as well as a Smart Sourcing point of contact for each Competency and PEO.

Note: In order to access the Smart Sourcing web site, you must have a NAVAIR government legacy (non-NMCI) network account. You will need to use your legacy logon ID and password to access the site. If you do not know your legacy logon ID and password, you should contact the NAVAIR National Help Desk at 301-342-3104 or <http://calltracker/>.

POC: AIR-2.1.1.9, 301-757-6562

CHAPTER XI: KEY TOPICS

PART L: PERFORMANCE BASED SERVICES ACQUISITION (PBSA)

Source Documents:

Public Law 106-398, section 821

FAR 2.101;37.6; 7.105; 46.103 and 46.401(a)

Seven Steps to Performance Based Services Acquisition: <http://oamweb.osec.doc.gov/pbsc/index.html>



july_revision_pt
task_force.pdf

Discussion:

Performance-based service acquisition (PBSA) has been articulated in regulation, guidance, and policy for over two decades. Progress in implementing PBSA, also known as performance-based service contracting and performance-based contracting, has been slow. DoD is committed to achieving broader use of PBSA and has established a goal of 50 percent of eligible service contract dollars by FY 2005.

Several GAO and DODIG audits of the manner in which services are procured throughout the Government have identified shortcomings. These shortcomings include poor planning, inadequately defined requirements, inadequate competition, and lax Government oversight of contractor performance. Performance-based service contracts are widely believed to provide one significant means to address these inadequacies. Increased PBSA should result in benefits to the Government through savings in acquisition costs, savings in Government oversight costs, and/or improved contractor performance.

Performance-based contracting methods are intended to ensure that required performance quality levels are achieved and that total payment is related to the degree that services performed meet contract standards

With limited exceptions, when acquiring services, agencies must use performance-based contracting methods to the maximum extent practicable and use the following order of precedence with respect to contract type:

- (i) A firm-fixed price performance-based contract or task order;
- (ii) A performance-based contract or task order that is not firm-fixed price;
- (iii) A contract or task order that is not performance-based.

In July 2003, OFPP issued a report of an interagency task force that reviewed PBSA with a view toward identifying impediments to its increased use. The report recommended several changes to FAR and improved quality and availability of guidance. The most frequently cited barriers to converting from non-performance based service contracts to performance-based include the difficulty of converting statements of work, lack of measurable performance standards, and the lack of quality assurance surveillance plans (QASP).

Both OFPP and DoD encourage greater use of Statements of Objectives (SOO) as one means to increase PBSA. Utilization of a SOO allows program personnel to summarize their requirements, identify constraints, and request that offerors submit not only a performance-based solution, but also a set of metrics and a QASP. Thus the essential, interrelated building blocks of a performance based service contract become outputs of the competitive acquisition process.

DoD has recognized that a key component for increasing PBSA is to ensure that requirements personnel understand how to prepare performance based specifications. Toward that end, DoD has mandated that 50 percent of personnel who prepare statements of work for service contracts must receive appropriate training on preparing performance based statements of work by September 2004, and the remainder must receive appropriate training by September 2005.

DoD is preparing a distance learning course which should be available shortly. Meanwhile, Seven Steps to Performance Based Services Acquisition <http://oamweb.ossec.doc.gov/pbse/index.html> provides a virtual guide for the greater "acquisition community," including the program managers, program staff, customers, and others whose participation is vital to a successful performance-based acquisition. It is also a knowledge management tool that captures and connects the web of information on the Internet into seven critical, strategic steps of performance-based acquisition, with a library of guidance and links to samples and examples.

POC: AIR-2.1.1.1, 757-6571

CHAPTER XI: KEY TOPCIS

PART M: NON-ADVACATE REVIEWS (NARS)

Background:

In August of 2002, ASNRDA established the need for each SYSCOM to conduct an independent/non-advocate review during the planning and execution phases of major programs to help avoid mismatches between customer expectations, requirements, technical approach, acquisition strategy, cost estimate, and budget. NAVAIR in alignment with NAVSEA, NAVSUP, and SPAWAR developed a two-phased approach to achieve this objective.

Phase I was a near term review of each ongoing NAVAIR ACAT I and II program to ascertain its state of health with respect to the currency of its independent cost estimate and the adequacy of its current budget. This phase was classified as the Initial Non-Advocate Reviews (INARS) and was conducted between September 2002 and January 2003. During this period NAVAIR conducted twenty-nine (29) INARS, from which NAVAIR developed and refined the NAR processes and preliminary NAR schedule.

Phase II was a long-term policy and process development period in which NAVAIR developed the NAR Instruction, NAVAIRINST 5000.22, NON-ADVOCATE REVIEWS, signed June 2003. This instruction directs that an independent review to assess validity of a program's independent cost estimate with respect to the evolved requirements, and to establish confidence in the ability to manage our planned programs. This review shall be conducted prior to Milestone B for each Acquisition Category (ACAT) I and II program, and for any special interest programs as defined by the Command.

Policy Overview:

- A NAR will be conducted for each ACAT I and II program prior to Milestone B (MS B), and subsequent to MS B as required. The NAR should be scheduled to allow for the results and recommendations to be fully incorporated into the program plans in support of achieving the next major milestone.
- The NARs will be conducted by an internal non-advocate team composed of experienced and independent personnel, and will be tailored to the content, phase, and potential issues of the specific program being reviewed.
- The NAR will be lead by a NAR Chairperson who will be a NAVAIR or PEO Flag Officer or Senior Executive Service individual not in the chain of command for the program being reviewed.
- The NAR will have a Core Team composed of Command SES and Flags Officer representing each of the Command's Competency functions.
- The Competency SMEs will review, assess, and provide data / report to their Competency Core Team member, who will then provide a consolidated review to the NAR Chairperson.
- The NAR Chairperson will lead the review team and report findings. Prior to presenting the team's findings to the NAVAIRSYSCOM Commander (AIR-00), the NAR Chairperson will report findings to an Executive Review Board (ERB) for visibility of the findings, to elicit additional recommendations, and to promote awareness of actions needed in the ERB member's specific areas of responsibility.

The NAR will assess the program scope, requirements, acquisition strategy, and estimated life cycle costs. Requirements traceability shall provide a clear understanding of the technical approach, trades, and risks, translated into a systems configuration and reflected in the program's cost estimate, schedule, and acquisition strategy. The

Primary Goal of the NAR is to ensure full recognition by the program's key stakeholders of all the elements necessary to deliver an integrated, complete capability to the fleet.

Program Manager / IPT Leader Guidance:

The NAR is not envisioned to add additional workload for Program Manager or IPT Lead. The program manager must make available program data for the NAR Team to review, and must provide thorough program indoctrination briefs. However, the NAR team should not request unique or specific NAR only data. The program manager must integrate the NAR review into their program master plan and include NAR program milestones within their acquisition schedules and plans. The program team should be integral part of the NAR team and integrate findings into their programs to ensure continued success.

Process Outline:

- I. NAR In brief with PMA Team
 - o NAR Team Brief
 - o Program Brief
 - o Process /Schedule Agreement
 - o Library of Documentation
- II. SME's Review of Functional Areas
 - o PM, Log, Tech, T&E, Cost, Contracts, Budgets, Financial, etc
 - o Utilize Expertise / Competency NAR Guides / Checklists
 - o Identify C-S-P Risks / Quantify Issues
- III. NAR Team Review / Integrate SME Data
 - o Quantify Program Issues
 - o Determine Cost Impact
- IV. NAR Team Complete Review / Report
- V. Brief PMA/PEO
- VI. Brief ERB/AIR-00

POC: AIR-1.0D, 757-6620

GLOSSARY OF ABBREVIATIONS AND ACRONYMS

AAP	Abbreviated Acquisition Program
ACAT	Acquisition Category
ACO	Administrative Contracting Officer
AEPST	Acquisition Environmental Product Support Team
AKSS	Acquisition Knowledge Sharing System
AL	Acquisition Logistics (formerly Integrated Logistics Support)
ALH	Acquisition Logistics Handbook (ALH)
ALSP	Acquisition Logistics Support Plan
AM	Acquisition Manager
AMPS	Afloat Master Planning System
AOA	Analysis of Alternatives
AP	Acquisition Plan
APBA	Acquisition Program Baseline Agreement
APEO	Assistant Program Executive Officer
APEO (SE)	Assistant Program Executive Officer (Systems and Engineering)
APEO(L)	Assistant Program Executive Officer (Logistics)
APEEO (RDT&E)	Assistant Program Executive Officer (Research, Development, Test and Evaluation)
APM	Assistant Program Manager
APMC	Assistant Program Manager for Contracts
APML	Assistant Program Manager for Logistics
APMSE	Assistant Program Manager for Systems & Engineering
APMT&E	Assistant Program Manager for Test & Evaluation
ARB	Acquisition Review Board
ASN(RD&A)	Assistant Secretary of the Navy (Research, Development & Acquisition)
ASN (RD&A) CHENG	Assistant Secretary of the Navy (Research, Development & Acquisition) Chief Engineer
ASPO	Acquisition Systems Protection Officer
ASPP	Acquisition Systems Protection Program
ASPRO	Acquisition Systems Protection Officer
ASR	Acquisition Strategy Report
A&AS	Advisory and Assistance Services
BAFO	Best & Final Offer
BF	Battle Force
BFI	Battle Force Interoperability
BFIT	Battle Force Interoperability Test
BGSIT	Battle Group System Integration Test
BOA	Basic Ordering Agreement
BRB	Baseline Review Board
CAE	Component Acquisition Executive (same as SAE)
CAIV	Cost as an Independent Variable
CAO	Competency Aligned Organization
CBD	Commerce Business Daily
CCB	Change Control Board or Configuration Control Board
CD (ORD))	Capability Development Document (formerly part of Operational Requirements Document
CDRL	Contract Data Requirements List
CE	Concept Exploration
CEC	Cooperative Engagement Capability
CFSG	Contracting for Supportability Guide
CI	Configuration Items
CI	Counterintelligence
CICA	Competition in Contracting Act
COMOPTEVFOR	Commander, Operational Test and Evaluation Force

CM	Configuration Management
CMMI	Capability Maturity Model (Integrated)
CONOPS	Concept of Operations
COTS	Commercial-Off-the-Shelf
CPD	Capability Production Document (formerly part of Operational Requirements Document (ORD))
CRD	Capstone Requirements Document
CS	Consulting Services
CTL	Component Team Leader
C4I	Command, Control, Communications, Computers, and Intelligence
C4ICS	C4I Combat Systems
C4ISP	C4I Support Plans
D&F	Determination and Findings
DAB	Defense Acquisition Board
DAE	Defense Acquisition Executive (the Under Secretary of Defense for Acquisition, Technology, and Logistics)
DCMA	Defense Contracts Management Agency
DCNO	Deputy Chief of Naval Operations
DEP	Distributed Engineering Board
DER	Data Exchange Requirement
DFAR	Defense Federal Acquisition Regulations
DID	Data Item Description
DMI	
DMR	Defense Management Report
DNET	Defense Network
DOT&E	Director, Operational Test and Evaluation
DPG	Defense Planning Guidance
DRB	Defense Resources Board/Design Review Board
DRPM	Direct Reporting Program Manager
DRRB	Data Requirements Review Board
DSMC	Defense Systems Management College
DT&E	Development Test & Evaluation
ECP	Engineering Change Proposal
EDT	Externally Directed Teams
EMD	Engineering and Manufacturing Development (also E&MD)
EMI	Electromagnetic Interference
EO	Executive Order
EOB	Expense Operating Budget
ET	Enterprise Team
EVMS	Earned Value Management System
FAR	Federal Acquisition Regulations
FMS	Foreign Military Sales
FOT&E	Follow On Test and Evaluation
FPI	Fixed Price Incentive
FRP	Full Rate Production
FRR	Flight Readiness Reviews
FSED	Full Scale Engineering Development (also FSD - Full Scale Development)
FST	Fleet Support Team
FYDP	Future Year Defense Program
F3I	Form, Fit, Function Interface
GFE	Government Furnished Equipment
GSE	Ground Support Equipment
HAZMAT	Hazardous Material
HMMP	Hazardous Materials Management Program
HRC	Human Resources Center
HSI	Human-System Integration
IBR	Integrated Baseline Review

ICD	Initial Capabilities Document (formerly Mission Need Statement (MNS))
IDP	Individual Development Plan
IEPR	Independent Expert Program Review
IER	Information Exchange Requirement
ILA	Independent Logistics Assessment
IMIP	Industrial Modernization Incentives Program
IOC	Initial Operating Capability
IOCSR	Initial Operating Capability Supportability Review
IPPD	Integrated Product and Process Development
IPR	Interdepartmental Purchase Request
IPS	Integrated Program Summary
IPT	Integrated Program Team/Integrated Product Team
ITIPS	Information Technology Investment Planning Systems
J&A	Justification & Approval
JITC	Joint Interoperability Test Center
JROC	Joint Requirements Oversight Council
LEM	Logistics Element Manager
LMI	Logistics Management Information
LM	Logistics Manager
LMTCE-WIAT	Lead Maintenance Technology Center (Environment) – Working Integrated Product Team
LRFS	Logistics Requirements Funding Summary
LRIP	Low Rate Initial Production
M&S	Modeling and Simulation
MCOTEA	Marine Corps Operational Test and Evaluation Agency
MDA	Milestone Decision Authority
ME	Manufacturing Engineering
MGFEL	Master Government Furnished Equipment List
MILSTRIP	Military Standard Requisitioning and Issue Procedures
MIPR	Military Interdepartmental Purchase Request
MNAAPC	Management of the Naval Aviation Acquisition Process Course
MS	Milestone
MSS	Management and Professional Support Services
NADEP	Naval Aviation Depot
NAE	Navy Acquisition Executive
NAIAO	Naval Aviation Interoperability Assurance Office
NAPS	Navy Acquisition Procedures Supplement
NAR	Non-Advocate Review
NAVCOMPT	Navy Comptroller
NAVICP	Naval Inventory Control Point
NAWC	Naval Air Warfare Center
NCR	Naval Change Request
NCTSI	Navy Center for Tactical Systems Interoperability
NCW	Network Centric Warfare
NDI	Non-Developmental Item
NEAT	NAVAIR Environmental Acquisition Targets
NEPA	National Environmental Policy Act
NFHP	Navy Flying Hour Program
NPDM	Navy Program Decision Meeting
NTP	Naval Training System Plan
NWCF	Navy Working Capital Fund
O&MN	Operations and Maintenance Navy (appropriation) (O&MNR is O&M for the Naval Reserve)
ODS	Ozone Depleting Substance
OPR	Office of Primary Responsibility
OPSEC	Operations Security
OR	Operational Requirement

OSD	Office of the Secretary of Defense
OSIP	Operational Safety Improvement Program
OT&E	Operational Test & Evaluation
OTRR	Operational Test Readiness Review
PARM	Participating Manager
PAT	Process Action Team
PBD	Program Budget Decision
PCO	Primary Contracting Officer
PDM	Program Decision Memorandum
PEO	Program Executive Officer
PESHE	Programmatic Environmental, Safety, and Occupational Health Evaluation
PFCP	Program Funding Change Proposal
PHST	Packaging, Handling, Storage, and Transportation
PID	Procurement Initiation Document
PM	Program Manager
PMA	Program Manager AIR
PMB	Performance Measurement Baseline
PMIS	Program Manager Information System
PPL	Preferred Product List
PO	Project Order
POM	Program Objectives Memorandum
POA&M	Plan of Actions & Milestones
PPA	Procurement Planning Agreement
PPBS	Planning, Programming & Budgeting System
PPC	Procurement Planning Conference
PPP	Program Protection Plan
PPWSTPD	Plan for the Protection of Weapon Systems Test and Performance Data
PRR	Production Readiness Review
PSP/TSP	Personal Software Process/Team Software Process
PT	Procurement Team
P2	Pollution Prevention
QA	Quality Assurance
QDR	Quality Deficiency Report
QPL	Qualified Parts List
R&D	Research and Development
RCP	Request for Contractual Procurement
R&M	Reliability and Maintainability
RDC	Rapid Deployment Capability
RDT&EN	Research, Development, Test and Evaluation Navy (appropriation)
RFI	Request for Information
RFM	Requiring Financial Manager
RFP	Request for Proposal
RM	Requiring Manager
RQ	Requisition
SA	Supportability Analysis
SAE	Service Acquisition Executive
SEI	Software Engineering Institute
SIS	Software Intensive System
SLC	System Leadership Council
SLT	Software Leadership Team
SOO	Statement of Objectives
SOW	Statement of Work
SPI	Single Process Initiative
SRR	Systems Requirements Review
SSA	Source Selection Authority
SSAC	Source Selection Advisory Council

SSEB	Source Selection Evaluation Board
SSEMP	System Security Engineering Management Program
SSIL	System/Subsystem Interface List
SSP	Source Selection Plan
STARS	Standard Accounting and Reporting System
SW-CMM	Software Capability Maturity Model
TCD	Target Configuration Date
TDP	Technical Data Package
TDSA	Technical Directive Status Accounting
TEIN	Test & Evaluation Identification Number
TEMP	Test & Evaluation Master Plan
TNS	Technology Needs Survey
TOA	Total Obligation Authority
TOR	Trouble Observation Report
TR	Trouble Report
TYCOMs	Type Commanders (Commander in Chief, U.S. Atlantic Fleet; Commander in Chief, U.S. Pacific Fleet; and Commander in Chief, U.S. Naval Forces, Europe)
USD(AT&L)	Under Secretary of Defense (Acquisition, Technology, and Logistics)
VE	Value Engineering
VECP	Value Engineering Change Proposal
WBS	Work Breakdown Structure
WIPT	Working Integrated Product Team
WR	Work Request
WSPD	Weapon System Planning Document

TEAM ACQUISITION GUIDE POINTS OF CONTACT

Chapter	Section	Title	Phone
I	A&B	The Guide –What It Is and Is Not/Purpose	(301) 757-6623
I	C	Acquisition Training	(301) 757-6626
II		Naval Aviation Acquisition & Support Organization	(301) 757-6626
III	A	The AT&L Knowledge Sharing System	(703) 805-4876
IV		Program Initiation Process	(301) 757-6623
V	A, B &C	Overall System, Planning Phase, Programming Phase	(301) 757-7801 (301) 757-7781
V	D & E	Budgeting Phase & Execution Phase	(301) 757-7808 (301)757-7814 (301) 757-7776 (301) 757-7796 (301) 757-8351
VI	Part A & B	Acq Categories/Abbreviated Acquisition Process & Acquisition Milestones & Phases	(301) 757-6623
VII	A	Acquisition Strategy	(301) 757-6623
VII	B	Acquisition Plan	(301) 757-6624
VII	C	C4I Support Plan	(301) 757-3257
VII	D	Test & Evaluation Master Plan	(301) 757-6514
VII	E	Program Tailoring/Streamlining	(301) 757-6623
VIII	A	Procurement Process – Basic Process	(301) 757-9028
VIII	B	Procurement Planning Conferences	(301) 757-9028
VIII	C	Data Management	(301) 757-9017
VIII	C	Procuring Activity to Contract Award	(301) 757-6596
IX		Managing Program Modifications	(301) 757-6623
X	A	Configuration Management Policy & Procedures	(301) 757-9090

X	B	Engineering Change Proposal Process	(301) 757-9090
Chapter	Section	Title	Phone
XI	A	Competition (For Component Breakout)	(301) 757-1812
		Source Selection	(301) 757-1810
			(301) 757-1812
			(301) 757-1805
			(301) 757-1808
			(301) 757-1806
			(301) 757-1807
XI	A	Competition (Contracting)	(301) 757-6596
XI	B	Alpha Acquisition	(301) 757-6596
XI	C	Advisory and Assistance Services	(301) 757-7781 (301) 757-7807
XI	D	Statement of Work (SOW) Statement of Objectives (SOO)	(301) 757-9017
XI	E	Earned Value Management	(301) 342-2394
	F	Independent Logistics Assessment Process	(301) 757-3085
		Integrated Logistics Process	(301) 757-3085
XI	G	Environmental Safety and Health Issues	(301) 757-2137
XI	H	Engineering Disciplines	
XI		Human System Integration Process	(301) 342-2241
XI		Systems Engineering	(301) 757-6640
XI		Value Engineering	(301) 342-2241
XI		Integrated Baseline Reviews	(301) 342-2394
XI		Manufacturing Engineering	(301) 342-0196
XI		Systems Engineering Technical Reviews	(301) 757-6640
XI		Modeling & Simulation	(301) 342-8342
XI		Naval Aviation Analysis	(301) 757-3044 (301) 757-3074
XI		Risk Management	(301) 757-6640
XI		Software Intensive System (SIS) Acquisition & Program Management	(760) 939-3197
XI		Interoperability Assessment Program	(301) 342-8261

XI		Battle Force Interoperability Program	(301) 757-3252
XI		DNET	(760) 939-2086
XI	I	Core Logistics Capabilities, Title 10, U.S Code, Section 2464	(301) 757-8611 (301) 757-8714
XI	J	Clinger-Cohen	(301) 342-4812
XI	K	Smart Sourcing	(301) 757-6335
XI	L	Performance Based Services Acquisition	(301) 757-6335
XI	M	Non-Advocate Review	(301) 757-6620

ACQUISITION GUIDE WEBSITES

WEBSITE	PURPOSE
Http://www.nalda.navy.mil/acquisition/tools.html	This Acquisition Guide can be downloaded from this site
Http://www.deskbook.osd.mil (AT&L KSS)	Provides up-to-date DoD policies and procedures; ASN(RD&A) Acq. Guide
Http://www.dtic.mil/comptroller/fmr/	DoD Financial Management Regulations DoD 7000.14-R
Http://www.ar.navy.mil/turbo	Toolkit for preparing solicitation packages
Http://www.navair.navy.mil/air10/air11/index.htm	NAVAIR PID Guide provides guidance on preparing PIDs
Http://www.navair.navy.mil/air10/air11/index.htm	Configuration/Data Management
Http://www.nalda.navy.mil/3.6.1/warranty.html	Warranty information
Http://www.value-eng.com	Value engineering website
Http://www.arnet.gov/far	Federal Acquisition Regulations (FAR)

¹ Public Law 91-596, *Occupational Safety and Health Act of 1970*, as amended by Public Law 101-552, Section 3101, November 5, 1990