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## NAVAIR ACQUISITION GUIDE 2016/2017

**This is the 26th Edition of the NAVAIR Acquisition Guide. Constructive changes/recommendations are encouraged. POCs: Lola Scott, AIR-1.1 ([lola.scott@navy.mil](mailto:lola.scott@navy.mil)) or Florine James, AIR-1.1 ([florine.james@navy.mil](mailto:florine.james@navy.mil)).**

**This guide is available for download at the websites listed below:**

**The Acquisition Management System (AMS) at <https://myteam.navair.navy.mil/corpapps/ams/home/default.aspx>, select Resources, AIR-1.0 Acquisition Policy, Policy & Guidance, and Guidebooks/Handbooks.**

**My NAVAIR at <https://mynavair.navair.navy.mil/portal/server.pt>; after logging in, click on Acquisition Resources, and then the NAVAIR Acquisition Guide.**

**The Defense Acquisition Portal at <https://dap.dau.mil/Pages/Default.aspx>.**



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## **CHAPTER I: INTRODUCTION & OBJECTIVE**

### **1.1. The Guide: What It Is and Is Not**

1.1.A. This Guide was developed in recognition of the need to:

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

1.1.B. The following points represent what this Guide is not intended to do:

- ◆ It does not supersede existing Instructions, Directives, Notices, or otherwise established Department of Defense/Department of the Navy 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.

### **1.2. The Guide: Its Purpose**

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

1.2.B. The purpose of this NAVAIR Acquisition Guide is to identify the key activities and critical documentation required, and to 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 processes and sequence of events, and the 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 different parts of the acquisition cycle and minimizing the number of required events, and by monitoring system performance measurement against the established process standards.

1.2.C. Members of the Naval Aviation Enterprise are encouraged to use this Guide as a ready reference, and to make constructive comments for continual improvement to AIR-1.1, NAVAIR Acquisition Guide managing editor.

### **1.3. Acquisition Certification/Currency**

1.3.A. All personnel in designated Acquisition Technology and Logistics (AT&L) positions have a certification requirement. The certification requirement is determined by the position category. The certification level is based on the criticality of the position duties, responsibilities, and authorities within the acquisition system. Acquisition Workforce members must meet primary career field certification requirements within 24 months of assignment. Persons assigned to positions with a Level II or III certification requirement are encouraged, but not

required to certify at lower levels first. However, all mandatory course prerequisites must be satisfied as prescribed. Once an acquisition workforce member is certified, he or she remains certified even if the certification requirements change. AT&L Career Field Certification is reciprocal among DoD Components. Individuals may also obtain certification in other career fields (subsidiary certification). Subsidiary certifications must be achieved in sequential order from lowest to highest. DoD publishes the certification standards annually in the on-line Defense Acquisition University (DAU) Catalog at <http://icatalog.dau.mil/>. These standards identify education, training, and experience requirements for the three levels of certification for each career field. The DAU Core Plus standards include both “Core” certification requirements for AT&L positions and “Plus” developmental education, training, and experience beyond that required for certification. Registration for DAU training is through Electronic Defense Acquisition Career Management (eDACM) at <https://www.atrrs.army.mil/channels/navyedacm/Login/Login.aspx>.

1.3.B. Additionally, acquisition personnel must participate in meaningful Continuous Learning (CL) activities to remain current and proficient in their functional disciplines, acquisition policy initiatives, and leadership and management skills. Workforce members are encouraged to coordinate with managers and supervisors to create a professional career developmental plan that will keep them informed of key initiatives in a rapidly-changing environment. Acquisition personnel must record at least 80 hours of CL activities bi-annually with a goal of recording at least 40 hours annually. eDACM is the official system for tracking DON CL points. Note: Non-acquisition related or annual employee training requirements such as Prevention of Sexual Harassment, Retirement Planning Seminars/Workshops, safety drills, etc., are *not* applicable to the AT&L Continuous Learning Program and are *not* to be used for the 80-hour requirement.

1.3.C. Supervisors must ensure that acquisition personnel are provided an opportunity to complete certification or continuous learning courses, including distance learning, during duty hours. There is no tuition for DAU training for DoD employees. Travel and per diem funding for eligible Priority 1 students may be obtained via eDACM when the course is required for career field certification. Student’s command funds Local Excess (Mileage) travel to a DAU campus subject to the availability of funds.

1.3.D. AIR-1.5 Defense Acquisition Workforce Improvement Act (DAWIA) POCs: DAWIA Program Director, DAU Liaison: Joe Wible 301-757-9013; Continuous Learning, Acquisition Workforce Tuition Assistance Program (AWTAP), Waivers, DAU Course Fulfillments Standard Operating Procedures, PM Competency Certification Training: Heather Jacobs 301-342-4722; Section 852 Program Manager: Jennifer Altomare 301-757-9008; Section 852 Funds Manager, National Competency Training Lead (NCTL): Nancy Wallace 301-757-7684.

## CHAPTER II: NAVAL AVIATION ACQUISITION AND SUPPORT ORGANIZATION

2.1. Background. To understand how NAVAIR's acquisition processes operate, it is important to understand the acquisition structure, how we got where we are, and where we are going. During the 1990s, NAVAIR completed an extensive four-year, three-phase transition from a program/functional matrix organization with site specific characteristics, to a Competency Aligned Organization (CAO) that spans seamlessly across all sites encompassed in the Naval Air Systems Team structure. The CAO/IPT concept of operations represents continuing evolution of many of the key management principles originally sought by the Packard Commission of the mid-1980s, 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 the transition to CAO/IPT. The following discussion synthesizes key events that significantly influenced the evolution and current organization structure, as well as NAVAIR's operating concepts over the last twenty 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 the Commander, Naval Air Systems Command's (COMNAVAIRSYSCOM'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 the PEO for Tactical Aircraft Programs (PEO(T)); the PEO for Air Anti-Submarine Warfare (ASW), Assault, and Special Mission Programs (PEO(A)); and the PEO for Unmanned Aviation and Strike Weapons (PEO(U&W)). The figure at the end of this chapter shows the current program alignment. A joint service PEO has also been established for the Joint Strike Fighter (JSF).
- ◆ In May 1995, Secretary of the Navy Instruction (SECNAVINST) 5400.15A was issued by the Secretary of the Navy to describe the relationships between ASN(RD&A), the PEOs/Direct Reporting Program Managers (DRPMs), 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, PEOs 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 Systems Command (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 on PM-led IPTs supported by personnel, processes, and facilities provided from seven competencies. The transition began in the spring of 1993 with a Reengineering Study Team consisting of senior management personnel from throughout NAVAIR. This team initiated a review of the NAVAIR/PEO organization in light of the impact of the 1993 Base Realignment and Closure (BRAC) 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 NAVAIR Transition Plan of February 1996, the IPT Manual of December 1996, and the NAVAIR CAO CONOPS of 25 August 2010. The two major thrusts of 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 Naval Aviation community has developed IPTs, fully empowered under Program Manager, Air (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.

2.2. Teams. The heart of the CAO/IPT CONOPS is the operation of IPTs under the direction of the PMAs. The 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 or indirect efforts (e.g., Human Resources, Corporate Operations) essential for the operation of the Naval Aviation community 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 (e.g., test ranges for multiple aircraft/weapons) and efforts from individuals who support many customers.

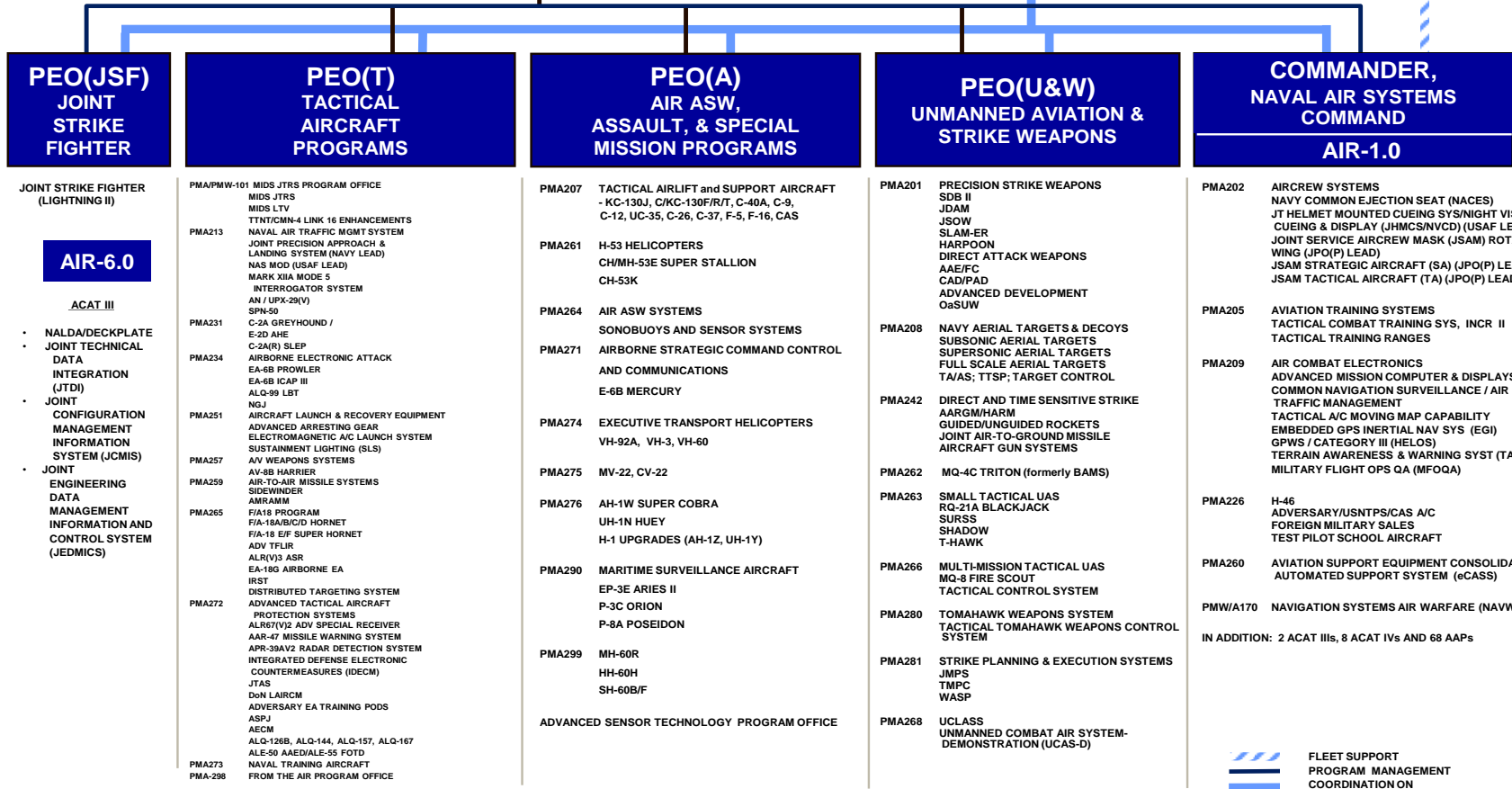
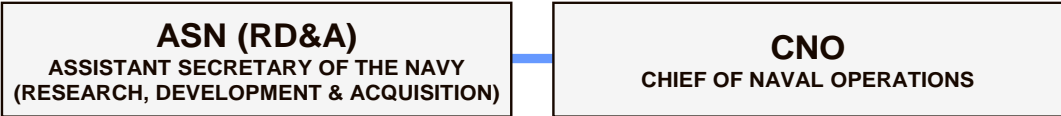
2.3. CAO. The CAO links people with like capabilities across all NAVAIR sites into competencies. The eight national competencies are: Program Management (AIR-1.0), Contracts (AIR-2.0), Research and Engineering (AIR-4.0), Test and Evaluation (AIR-5.0), Logistics and Industrial Operations (AIR-6.0), Corporate Operations (AIR-7.0), Comptroller (AIR-10.0) and the Office of Counsel (AIR-11.0). 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 CAO 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.

2.4. Acquisition Procedures. The charters for the PEOs and DRPMs provide where possible, NAVAIR instructions implementing DoD/DON acquisition policy. These charters 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.

2.5. POC: Lola Scott, AIR-1.1, (301) 757-7228



# NAVAL AVIATION ACQUISITION PROGRAM ALIGNMENT



UPDATED: 15 SEP 2015  
 DATA SOURCE: PEO(T), GEOFF TISONE, 301-757-7156; PEO(A), DARNELLE FISHER, 301-757-6146; PEO(U&W), SPENCER CRISPELL, 301-757-6306; AIR-1.0, THOMAS MATTHEWS, 301-757-6989; AIR-1.1, LOLA SCOTT, 301-757-7228



## **CHAPTER III: SOURCE DOCUMENTS FOR THE DEFENSE ACQUISITION SYSTEM AND THE JOINT CAPABILITIES INTEGRATION AND DEVELOPMENT SYSTEM**

### **3.1. Source Documents:**

DoD Directive 5000.1 of 12 May 2003

DoDI 5000.02 of 7 January 2015

Chairman of the Joint Chiefs of Staff Instruction 3170.01I of 23 January 2015

The Defense Acquisition Guidebook, promulgated September 2013

SECNAVINST 5000.2E of 1 September 2011

The DON Acquisition and Capabilities Guidebook SECNAV M-5000.2 of May 2012

### **3.2. Definition**

3.2.A The Defense Acquisition System is the management process by which the Department of Defense (DoD) acquires quality products in a timely manner, at a fair and reasonable price, and which satisfies user needs with measurable improvements to mission capability and operational support. The Defense Acquisition System exists to manage the nation's investments in technologies, programs, and product support in such a way so as to achieve the National Security Strategy to support not only today's armed forces, but also the next force and future forces beyond that.

3.2.B. The Joint Capabilities Integration and Development System (JCIDS) provides the procedures used by the Chairman of the Joint Chiefs of Staff (CJCS) and the Joint Requirements Oversight Council (JROC) to identify, assess, and prioritize joint military capability needs, as required by statute.

### **3.3 Discussion**

3.3.A. DoD Directive 5000.1, subj: The Defense Acquisition System, dated 12 May 2003 and DoD Instruction 5000.02 subj: Operation of the Defense Acquisition System dated 7 January 2015 and referred to as the DoD 5000 series documents, provide the policy framework for translating mission needs into stable, affordable, and well managed programs. These two documents can be found at <https://dap.dau.mil>. The Defense Acquisition Guidebook provides discretionary best business practices, as well as the supporting policies and statutes, and lessons learned. The Defense Acquisition Guidebook is available at <https://acc.dau.mil/dag>.

3.3.B. CJCS Instruction 3170.01I, subj: Joint Capabilities Integration and Development System, establishes the JCIDS policies and procedures. In addition, this instruction, and its accompanying JCIDS Manual, subj: Operation of the Joint Capabilities Integration and Development System, dated 12 February 2015, provide detailed direction concerning the preparation, staffing, and approval of the key capabilities documents: the Initial Capabilities Document (ICD), the Capability Development Document (CDD), and the Capability Production Document (CPD). Both the instruction and the manual can be found at <https://acc.dau.mil/jcids>.

3.3.C. SECNAVINST 5000.2E, subj: Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System, issues mandatory procedures for DON implementation of the DoD 5000 series directives and the CJCS JCIDS directives for both major and non-major defense acquisition programs and major and non-major information technology acquisition programs. The SECNAVINST 5000.2E is at <http://doni.daps.dla.mil/>. A discretionary DON Acquisition and Capabilities Guidebook providing best practices and other non-mandatory guidance can be found at <http://doni.daps.dla.mil/SECNAV%20Manuals1/5000.2.pdf>.

3.4. POC: Lola Scott, AIR-1.1, (301) 757-7228

## CHAPTER IV: THE DEFENSE ACQUISITION PORTAL (DAP)

### 4.1. Defense Acquisition Portal

4.1.A. The Defense Acquisition Portal (DAP) serves as a gateway to a vast array of knowledge related to the acquisition process, workforce and personnel development, policy, acquisition communities of practice, training and education, and an industry perspective. The DAP leverages technologies such as Really Simple Syndication (RSS) syndication techniques, blogs, tag clouds, and more to provide the workforce with 24/7 knowledge with greater ease and a higher level of confidence that the content comes from the most credible sources available. Some of the more recent changes in the DAP include increased blog activity to provide more timely knowledge pertaining to the career fields and key acquisition topic areas, the integration of a new DAU Video Stream that includes a simplified system for other sites to embed videos from DAU into Service and Agency websites, an icon-based Acquisition Services and Systems web part that provides quick access to a variety of online applications, a Milestone Document Identification tool, the DoD Performance Support Roadmap, and the Should-Cost site. All of the long-standing features like the Career Gateway area, Ask A Professor resources, DAU Glossary, and the latest appropriate contributions from communities of practice are all still included in the DAP. The DAP is currently slated for a major revision over the next year as DAU moves towards a single portal concept that will more seamlessly integrate all online resources.

4.1.B. The DAP front page provides news and serves as a directory to allow users to quickly jump to key content inside of the DAP and beyond. Just to highlight a few items, there is a rotating Acquisition Today News service to provide quick access to featured updates on what is happening in the Acquisition Workforce, to highlight new policies, and to share other key information of value. The page also includes the most recent AT&L Leadership Blog posts, featured video from the DAU Video Stream, a graphical interface for a wide variety of acquisition services and systems, highlights links to the Better Buying Power Gateway and the Acquisition Proven Practices and Lessons Learned site, the Functional Knowledge Gateway links, an Acquisition Reading resource, and Policy and Regulation Shortcuts. Icons at the top right of every page of the DAP allow users to add available RSS feeds to their own RSS aggregator(s) of choice, to bookmark pages using most of the popular online social bookmarking tools, or just to email a helpful page to a colleague.

4.1.C. The Acquisition Process tab provides knowledge about the larger Big “A” Process, including the Joint Capabilities Integration and Development System; the Defense Acquisition System; and the Planning, Programming, Budgeting & Execution System. Links to those three areas can be found in the left hand navigation or by clicking on the appropriate rings on the page graphic. Like the front page, there is a rotating news feature that focuses specifically on Acquisition Process News, and as in the case in all of the tabs and sub areas on the DAP you will find related tools, videos and tutorials, applicable DAU and rapid deployment training, related websites, and more.

4.1.D. The Workforce tab includes access to everything from information pertaining to current the Defense Acquisition Workforce Improvement Act (DAWIA) law to links to the Department of Defense, Director Acquisition Career Management Component sites. Key sub areas under this tab include Workforce Development, Human Capital Initiatives, and Career Management.

4.1.E. The Policy tab features Acquisition related policy in a way that allows the user to filter content by laws and regulations, organization, career field, or by special topic. When viewing filtered policy, users will visibly see the type of file, the policy name, a document summary, and the published date before having to click on the item. Featured Acquisition Policy is prominently displayed on this tab. Policy is identified in a web part here, and for those looking for additional Service or Agency policy that is not directly linked from within the DAP, there are links to a wide-variety of DoD policy resources on this page.

4.1.F. The Communities of Practice tab provides the workforce with a way to monitor the most recent contributions in the communities found in the Acquisition Community Connection (ACC). The front page of this tab includes featured Community News articles, highlights from the ACC, a listing of Hot Topic Forums, a link to the ACC monthly newsletter, cloud tags for ACC content, and links to all communities. Within the individual community areas on the DAP, users will find links to the latest knowledge and discussions, links to the community

topic areas, related policy and guidance, and more as additional services are integrated into the Community of Practice tab.

4.1.G. The Training and Education tab serves as a window to provide the very best possible knowledge pertaining to Training, Continuous Learning, DAU Student Information, Applying for Courses, Academic Support and Professional Development. This tab also includes a link to the DAU iCatalog, Certification and Core Plus Development Guides, Certification Facts, Schedules and Pre-Course Information, Student Services Frequently Asked Questions (FAQs), and Resources in Industry.

4.1.H. The Industry tab is the one-stop source for information and links about industry support for defense acquisition. This area is focused on Defense Contractor content. The front page of this tab provides a rotating Industry News area, Industry Problems and available DAU Training Solutions, Business and General Service Administration Links, Small Business Links, Learning & Collaboration Tools, and a link to the DAU Alumni Association. Sub pages in this tab feature Industry Associations, Industry Websites, Industry Articles Online, and a detailed Small Business section.

4.1.I. The DAU tab takes users to the DAU Website. DAU has completely revised their Website <http://www.dau.mil> to make sure that resources are as user friendly as possible. The new homepage uses a combination of tabs across the top of the site, a left-hand navigation, and a series of five web parts on the front page to place information critical to students, publications, and campus information right at the user's fingertips. This site can be accessed directly from the above Uniform Resource Locator or as a tab off of the Defense Acquisition Portal.

4.1.J. One of the most important feature on the DAP is the Submit Feedback Button located near the top right of the portal, because the Defense Acquisition Portal is a tool for the Acquisition Workforce and the team supporting this resource is continuously looking for ideas from the site's users in terms of features and functionality needed to support the workplace and ways to improve the existing online resources. The DAP was built with a lot of input from the workforce and feedback from the workforce is essential to make sure this portal is as good as it can possibly be and to help identify the most critical priorities for development efforts. The feedback button is intentionally large to encourage all to let the Acquisition Knowledge Management System leadership know what additional content would help the Acquisition Worker.

## CHAPTER V: PROGRAM INITIATION PROCESS

5.1. Overview. Milestone A, held to obtain the Milestone Decision Authority's (MDA's) approval to enter the Technology Maturation and Risk Reduction Phase (TMRR), is never used for formal program initiation. Milestone B authorizes entry into Engineering and Manufacturing Development Phase (EMD), 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.

### 5.2. Source Documents:

DoDI 5000.02 of 7 January 2015

CJCSI 3170.01I of 23 January 2015

Manual for the Operation of the Joint Capabilities Integration and Development System (JCIDS), (online)

SECNAVINST 5000.2E of 1 September 2011

DoDI 8330.01 of 21 May 2014

5.3. Materiel Development Decision. The Materiel Development Decision (MDD) is the formal entry point to the acquisition system. It authorizes the Analysis of Alternatives (AoA) and prepares the user for the next milestone. Decisions must be based on effective development planning and a strong technical foundation. The DoD Components shall provide evidence at the MDD Review that:

- The candidate materiel solution approaches have the potential to effectively address the capability gap(s), desired operational attributes, and associated dependencies.
- There exists a range of technically feasible solutions generated from across the entire solution space, as demonstrated through early prototypes, models, or data.
- Consideration has been given to near-term opportunities to provide a more rapid interim response to the capability need.
- The plan to staff and fund analytical, engineering, and programmatic activities supports the proposed milestone entry requirements as identified in DoD Instruction 5000.02

5.4. Materiel Solution Analysis. Materiel Solution Analysis is the first phase in the acquisition life-cycle and assesses potential materiel solutions and satisfies phase-specific entrance criteria for the next program milestone designated by the MDA. The Materiel Solution Analysis should be initiated by an MDD, at which the MDA for the prospective program approves the AoA plan and establishes a date for the Milestone A review. The MDA decision to begin Materiel Solution Analysis does not mean that a new acquisition program has been initiated. Entrance into this phase requires:

5.4.A. An approved Initial Capabilities Document (ICD) resulting from the analysis of potential analysis of current mission performance and an 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 3170.01I of 23 January 2015, and its accompanying manual, available online via <https://intellipedia.intelink.gov/wiki/JCIDS>.

5.4.B. An approved plan for conducting an Analysis of Alternatives (AoA) for the selected concept documented in the approved ICD. The AoA shall focus on identification and analysis of alternatives, measures of effectiveness, cost, schedule, concepts of operations, and overall risk. The AoA shall assess the critical technology elements (CTEs) associated with each proposed materiel solution, including technology maturity, integration risk, manufacturing feasibility, and where 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.

5.5. Technology Maturation and Risk Reduction. The TMRR Phase is entered at Milestone A. The purpose of this phase is to reduce technology risk, determine and mature the appropriate set of technologies to be integrated into a full system, and demonstrate CTEs on prototypes. TMRR 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 Science & Technology community, the user, and the system developer. A favorable Milestone A decision to enter TMRR does not mean that a new acquisition program has been initiated.

5.5.A. The ICD 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.

5.5.B. If an evolutionary acquisition strategy is being used, the initial capability represents only partial fulfillment of the overall capability described in the ICD; therefore, successive technology development efforts would be initiated until all the required capabilities have been obtained. 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.

5.5.C. The potential program exits the TMRR Phase when an affordable program or increment of militarily-useful capability has been identified, the technology and manufacturing processes for that program or increment has been assessed and demonstrated in relevant environment; manufacturing risks have been identified, competitive prototyping has occurred and a system can be developed for production within a relatively short timeframe (normally less than five years). During TMRR the user shall prepare the Capability Development Document (CDD) to support program initiation or evolutionary increment, 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 complete design of the proposed system. Detailed guidance on CDDs can be found in CJCSI 3170.011 and the JCIDS Manual.

5.5.D. A Development Request for Proposal (RFP) decision review is conducted during the TMRR phase when a final Development RFP will be released prior to Milestone B, so that the EMD contract can be awarded immediately after Milestone B is approved.

5.6. Milestone B. A Milestone B decision follows completion of the TMRR Phase and is used to start the EMD 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 ACAT designation is assigned.

5.6.A. Entrance into EMD depends on technology maturity (including software), approved requirements, and full funding. Prior to beginning EMD, 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 EMD, 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. A program is certified and should be fully funded at Milestone B. Further details on the EMD Phase and Milestone B can be found in DoDI 5000.02.

5.7. 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 SECNAVINST 5000.2E, Chapter 2, (see pages 2-5 thru 2-15) and the Defense Acquisition Portal on the Defense Acquisition University (DAU) website at <https://dap.dau.mil/mdid/Pages/Default.aspx>. These charts depict the ACAT level applicability for each information/document requirement and who has preparation and approval responsibility.

5.8. Lesson Learned. The program initiation process described above is extracted from DoDI 5000.02, 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 Materiel Solution Analysis and TMRR Phase may not be necessary if the required technology already exists. In addition, lower ACAT programs are able to tailor required documentation. 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.

5.9. Information Support Plan (ISP) and Interoperability Requirements Certification. Prior to program initiation, the PM is responsible for developing the initial ISP for IT, including National Security Systems (NSSs), programs based upon documented requirements (SECNAVINST 5000.2E). Programs that have interoperability requirements must obtain a Net-Ready Key Performance Parameter (NR KPP) certification as part of the staffing process for ICDs, CDDs, and Capability Production Documents (CPDs). ISP requirements derive from the acquisition and employment of NSSs, which include "systems and subsystems that are integral to embedded weapons platforms" (JCIDS Manual, with Errata through 20150327).

5.10. NR KPP Certification. The Joint Staff J-6 will certify the NR KPP in all CDDs and CPDs of programs with joint, multinational, or interagency interoperability requirements for conformance with joint IT and NSS policy, and compliance with integrated architectures, interoperability standards, and net-centric data sharing (DoDI 8330.01). For Navy programs with intra-Navy only interoperability requirements, OPNAV will certify the NR KPP. The sponsor submits all Naval CDD/CPD documents involving development, acquisition, or modification of IT/NSS to J-6 via the Defense Information Systems Agency-managed Knowledge Management/Decision Support (KM/DS) Tool. All ACAT I/IA capability 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 VII, Part C, and Chapter VIII, Part C of this Guide.

5.11. Information Support Plans (ISP). The draft Initial ISP, tied to the NR KPP, is prepared prior to the Development RFP Review Decision and submitted for formal review and concurrence via the GIG Technical Guidance Federation (GTG-F) web portal. For further details, refer to Chapter VII, Part C, and Chapter VIII, Part C of this Guide.

5.12. POC: Lola Scott, AIR-1.1, (301) 757-7228

## CHAPTER VI: PLANNING, PROGRAMMING, BUDGETING, AND EXECUTION (PPBE) PROCESS

### 6.1. Overall System

6.1.A. Flow Process. A macro view of a procurement program in the PPBE process would cover eight 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 2017:

| <u>Calendar Year</u> | <u>Identification</u>  |
|----------------------|--|
| 11                   | First identified in FYDP (fifth year of POM-13), (POM-13 submitted in 5/13)            |
| 13                   | Third year of POM-15, (POM-15 submitted in 7/15)                                       |
| 15                   | First year of POM-17, (POM-17 submitted by 7/15)                                       |
| 16                   | FY 17 budget sent to Congress NLT (2/16)   |
| 16                   | Current year - first year of availability (beginning 10/1/16)                          |
| 17                   | Second year of availability (beginning 10/1/17)  |
| 18                   | Third year of availability (beginning 10/1/18). Expires for new obligations on 9/30/19 |
| 21                   | Appropriation canceled (9/30/24)   |

6.1.B. Purpose. The Planning, Programming, and Budgeting System (PPBS) process has served as DoD's central strategic planning, program development, and resource determination process since the 1960s. In 1986 Congress authorized biennial budgeting (submitting 2-year budgets). In 2003, Management Initiative Decision (MID) 913, Implementation of a 2-Year Planning, Programming, Budgeting and Execution (PPBE) Process established budgeted execution as a formal process phase, and established concurrent program and budget reviews. In 2010, beginning with the FY 2012 budget, DoD eliminated the biennial budgets, returning to single-year budgets and the budget/program review will focus on a 5-year period each cycle.

The principal purpose of PPBE is to integrate the information necessary to craft effective plans and programs that address existing and emerging needs into a disciplined review and approval process. It is the primary means for the Secretary of Defense (SECDEF) to control allocation of resources, and aims to achieve the best mix of forces, manpower, material, equipment, and support. Planning establishes the strategic priorities and capabilities required to achieve the strategy; programming applies resources to programs that provide the capabilities required to achieve the strategic priorities; budgeting properly prices the programs, develops justification and an execution plan; and execution performs the approved plan. Constrained resources drive the process.

### 6.1.C. Source Documentation:

- DoDINST 7045.7, The Planning, Programming, Budgeting and Execution Process (dated 25 Jan 2013)
- DON Budget Guidance Manual, Part I, Chapters 1 and 2 (April 2015)  
(<https://pbis.nmci.navy.mil/fmb/guidance/bgm/BGM%20Part%20I%20Rev%2022%20Apr%202015.pdf>)
- MID 913, Implementation of a 2-Year Planning, Programming, Budgeting, and Execution Process (dated 22 May 2003)

### 6.2. Planning Phase

6.2.A. Purpose. The purpose of the planning phase is to determine strategic objectives and priorities to support national security and U.S. foreign policy; identify Navy and Joint capabilities required to accomplish the strategy, and use capabilities to frame the allocation of resources and programs in the programming phase. The Various strategic planning documents are reviewed and revised during the Planning Phase. The major DoD output of the planning phase is the Defense Planning Guidance (DPG), issued by SECDEF. In addition to the DPG, a Quadriennial Defense Review (QDR) is conducted at the beginning of each 4-year administration to review the overall Defense assumptions and strategy, as well as to establish overarching Defense initiatives and goals.

6.2.B. Principle Steps in Planning process:

- The National Security Council prepares the National Security Strategy.
- The Joint Chiefs of Staff (JCS) use the National Security Strategy as guidance to develop and present the National Military Strategy.
- Combatant Commanders provide the Secretary of Defense and the JCS with appraisals of issues and major problems.
- OSD and the JCS conduct a combined examination of the major issues and performance metrics.
- OSD issues the DPG document.

6.2.C. Principle DoD Planning Documents:

- National Security Strategy (NSS) – reflects the Administrations national interests, goals and priorities of the U.S.
- Quadriennial Defense Review (QDR) – foundation document for defense strategy and policy, reviews all elements of defense policy and strategy to support NSS
- National Defense Strategy (NDS) – reflects DoD’s strategic context and objectives for military force structure, force modernization, supporting infrastructure, and required funding and manpower resources
- DPG – provides guidance to the Secretaries of the Military Departments to submit their Program Objectives Memoranda (POMs) within resource constraints

6.2.D. Principle Navy Planning Documents:

- Sea Power 21 – provides Navy vision setting the general future end state
- Maritime Strategy – determines the specific objectives set in the general vision, describes how Seapower will be applied around the world
- Naval Operations Concept – comprises the commanders’ guidance for using current forces to operationally carry out the strategy guidance
- Navy Strategic Plan – frames capabilities-based strategy, aligns resource decisions with strategic objectives, provides a prioritized list of warfighting capabilities for further assessment
- Chief of Naval Operations (CNO) Guidance – identifies CNO intentions and priorities for coming fiscal year

6.2.E. Responsibility. NAVAIR is not involved in the Planning Phase.

6.3. Programming Phase

Flow Process: Dates are general for POM-17

|   |                |
|---|----------------|
| POM-17 SECNAV Guidance:                     | November 2014  |
| POM-17 Sponsor Program Proposal (SPP) Build | Jan-Mar 2015   |
| POM-17 SPPs to N8                           | Mar 2015       |
| POM-17 POM submission to OSD                | September 2015 |
| POM-17 Resource Management Decisions        | November 2015  |

6.3.A. Purpose. The programming phase prioritizes Planning phase requirements with an eye on fiscal constraints. Programming is the first time in PPBE that resources are allocated. The programming phase assigns assets to meet identified missions according to established priorities; and identifies and analyzes mission shortfalls and duplications, suggesting alternatives for minimizing or eliminating threats. During the programming phase, the Services seek to balance resources between manpower, investments and readiness, which are reviewed and alternatives are presented to the Deputy Secretary of Defense. The Service’s Program Objective Memorandum (POM) is the primary document used to submit programming proposals. The POM is reviewed by program review teams comprising members from the military departments, JCS, defense agencies, and OSD staff. In addition, the Joint Chiefs conduct a concurrent checks-and-balances review of the POM, focusing on the balance and capabilities



of the proposed force levels. These reviews are presented to the Secretary of Defense prior to his/her decisions in the Resource Management Decisions (RMDs). The issuance of the RMDs completes the Programming process.

6.3.B. Principle Steps in the Navy Programming Phase. Programming in the Navy begins in September with reviews of intelligence, strategy, warfare areas and support tasks. The reviews define funding needed to accomplish certain program levels or capabilities and make recommendations to the resource sponsors to use in preparing their SPPs. The reviews are summarized in Investment Strategies in the December/January timeframe. From January until February, the resource sponsors develop their SPPs, which constitute the basic building blocks for the POM. These proposals are submitted to N80, then to CNO.

6.3.C. Principle Documents of the Programming Phase:

- POM – contains specific programs to be pursued in support of the planning guidance and within the resource constraints approved by SECDEF in the DPPG
- Issue Books – single page narratives prepared by OSD staff, DoD Components, and Office of Management and Budget (OMB)
- RMD – Documents containing decisions of the Secretary of Defense regarding programs and resources

6.3.D. Source Documentation/Guidance:

- DON Budget Guidance Manual, Part I, Chapters 1 and 2 (April 2015)  
(<https://pbis.nmci.navy.mil/fmb/guidance/bgm/BGM%20Part%20I%20Rev%2022%20Apr%202015.pdf>)  
DoD Directive 7045.14, The Planning, Programming, Budgeting and Execution Process (dated 25 Jan 2013)

6.3.E. Responsibility. The programming phase is the responsibility of N8 (Deputy CNO for Resources, Requirements and Assessments) and the Resource Sponsors. While preparing their SPPs, Resource Sponsors consult and involve appropriate offices within DON including the Secretariat, FMB, N80, HQMC, and budget submitting offices. 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 Sponsor 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.

6.3.F. POC: Jennifer Glass, AIR-10.3, (301) 757-7801

6.4 Budgeting Phase:

6.4.A. Flow Process for the FY 2017 Budget

| FY 2017 submitted to ASN(FM&C) | Issues/ Issue Papers | FY 2017 submitted to OSD | OSD Review | RMD/ Reclama | FY 2017 submitted to Congress | FY 2016 Execution Review |
|--------------------------------|----------------------|--------------------------|------------|--------------|-------------------------------|--------------------------|
| 17 Jul 15                      | Jun-Jul 15           | Sep 15                   | Sep-Nov 15 | Nov 15       | Feb 16                        | Mar-Apr 16               |

6.4.B. Purpose. The Budgeting phase (formulation and justification) produces an annual budget request to Congress linking missions to required funding. It provides a platform for a detailed review of a program’s pricing, phasing and overall capability to be executed on time and within budget. Budgeting also prepares the programs to be developed into appropriations.

The DON's objective is to translate program resource requirements into a finely tuned budget request that is executable and properly priced. There are three budget cycles each year: submission to DON (June-August), submission to OSD (August-December), and submission to Congress (January-February). With the evolution of PPBS to PPBE, and the increased emphasis on the appropriate allocation of resources and proper execution of the budget, a primary aspect of preparing budget estimates is the inclusion of performance metrics. The Department will shift its focus to program performance and results, and then use that assessment in making budget decisions. The OSD Comptroller and Director, Cost Assessment and Program Evaluation 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.

Procurement: Complies with full funding policy.

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

6.4.C. Principle Steps in the Budgeting Phase:

- The Services conduct a review of their programs with the ultimate aim of producing a Budget Estimate Submission (BES).
- The review focuses on congressional interest and direction, execution performance, and fact-of-life changes.
- The BES is submitted for a joint review by OSD and OMB.
- OSD and OMB issue Resource Management Decisions (RMDs) to modify the BES.
- The BES as modified by the RMDs, is the baseline for the DoD budget, which becomes part of the President's Budget submitted to Congress.

6.4.D. Principle Documents of the Budgeting Phase:

- BES –contains recommended budget estimates based on aggregated inputs from operational organizations and field activities
- RMDs – budget decision document issued by OSD and OMB during the joint review of the Service budget submissions
- President's Budget (PB) – budget for a fiscal year, transmitted to Congress by the President by the first Monday in February

6.4.E. Source Documentation/Guidance:

- DoD Financial Management Regulations, Volumes 2A and 2B, Budget Formulation and Presentation (DoD 7000.14R) (<http://comptroller.defense.gov/fmr.aspx>)
- DON Budget Guidance Manual, Part I, Chapters 1 and 2 (Aug 2015) (<https://pbis.nmci.navy.mil/fmb/guidance/bgm/BGM%20Part%20I%20Rev%2022%20Apr%202015.pdf>)
- Assistant Secretary of the Navy (Financial Management and Comptroller) (ASN(FM&C) budget guidance memos ([https://fmbweb1.nmci.navy.mil/guidance/bg\\_memoranda.htm](https://fmbweb1.nmci.navy.mil/guidance/bg_memoranda.htm))

6.4.F. 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.

6.4.G. Responsibility. The NAVAIR Comptroller (AIR-10.0) and budget divisions (AIR-10.1.1, AIR-10.1.2, AIR-10.1.3, AIR-10.1.4, and AIR-10.4) are responsible for coordinating the preparation of formal NAVAIR budget requests. The Budget Formulation, Justification and Execution 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, and transmittal.

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

6.4.I. 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.

6.4.J. POCs:

|                              |   |
|------------------------------|---|
| Overall:                     | Kathy Dagenhart, AIR-10.1, (301) 757-7716       |
| PEO(A)/APN:                  | Jennifer Chermansky, AIR-10.1.1, (301) 757-7776 |
| PEO(W)/NAVAIR/WPN/OPN/PANMC: | Vacant, AIR-10.1.2, (301) 757-7814              |
| PEO(T)/RDT&E,N:              | Mike Barnett, AIR-10.1.4, (301) 757-7796        |
| O&M,N/O&M,NR:                | Rodney Gladden, AIR-10.1.3, (301) 757-8351      |

6.5. Execution Phase:

6.5.A. Flow Process:

- Congress passes Appropriation Act and President signs.
- Treasury issues appropriation warrants.
- OMB apportions funds within all appropriations.
- OSD allocates to the Services with such additional restrictions on execution as the Secretary of Defense may direct.
- ASN(FM&C) allocates to OPNAV; OPNAV allocates to NAVAIR and PEOs.
- AIR-10.0 allocates funds to accounts of cognizant managers.
- NAVAIR:
  - Make direct contracts with business
  - Issue allotments, Work Requests, Project Orders, Expense Operating Budgets, and other funding documents as required to subdivide allocated funds to Navy activities performing work
  - Issue Interdepartmental Purchase Requests (IPRs)/Military IPRs (MIPRs) to activities outside Navy

6.5.B. Purpose. Current year budget execution begins on 1 October. During execution, funds are allocated, obligated, and expended to accomplish DoD's plan. In addition, execution entails the rigorous monitoring and reporting of actual results to budgeted, anticipated results, along with causes of variances and planned corrective actions. 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.

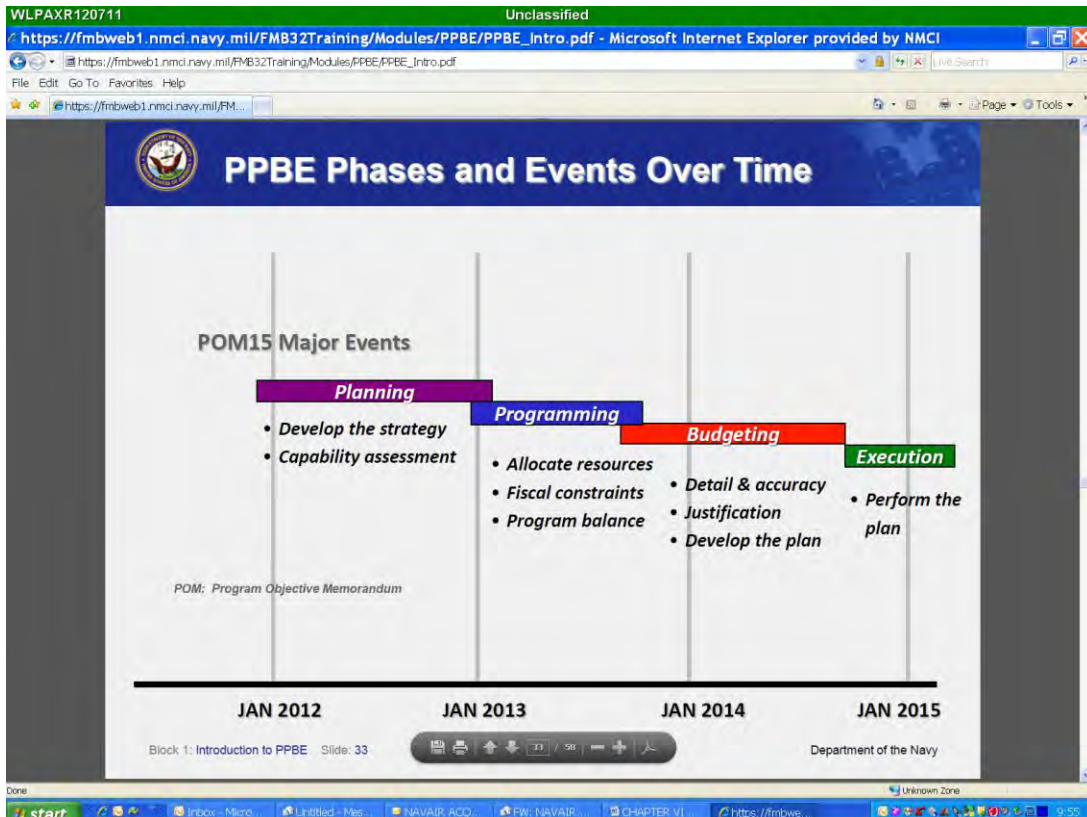
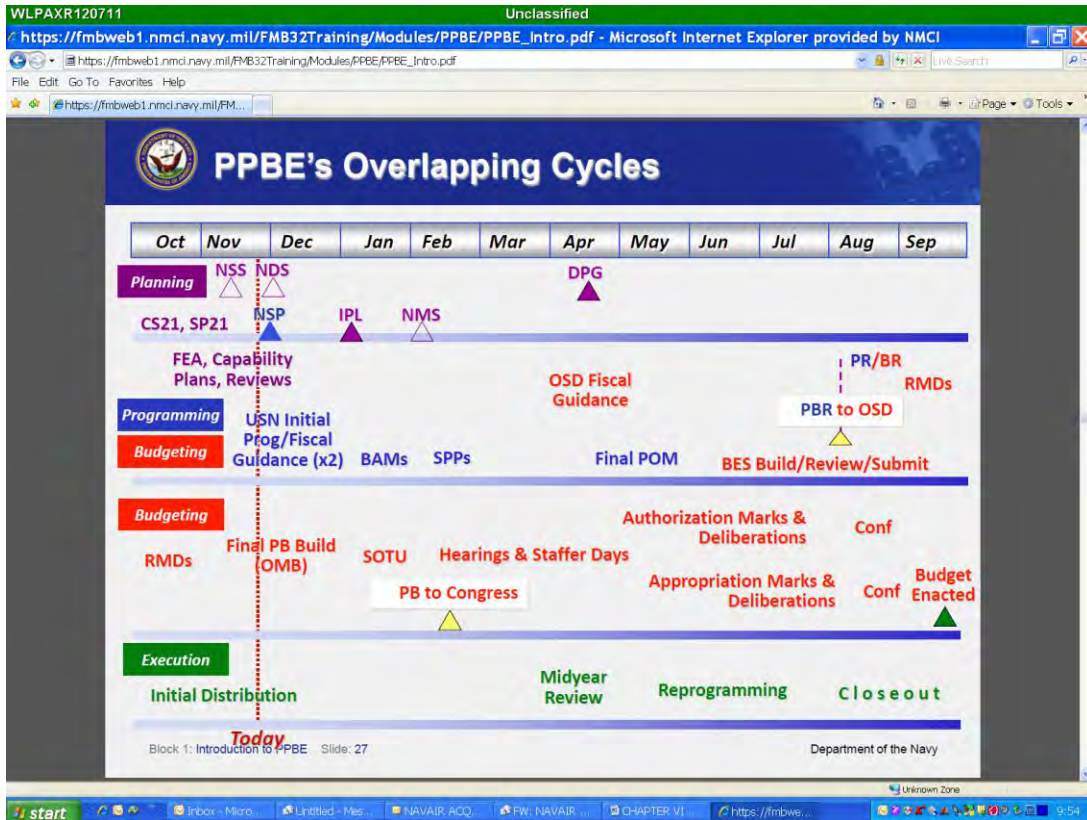
6.5.C. Source Documentation: Allocation documents

6.5.D. 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 in order to meet the PMAs/RFMs required contract award date; c) If sole source, J&A approval; d) Funding when ready for contract signature; and e) ECP submitted and approved in time to allow contract award by mid-fiscal year.

6.5.E. 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 Navy ERP. 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 their respective contracts as well as perform services, fabricate end items, or undertake a variety of research and development efforts.

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

6.5.G. POCs: Same as Budgeting Phase



## CHAPTER VII: MILESTONE REVIEW/APPROVAL PROCESS

### PART A: ACQUISITION CATEGORIES AND ABBREVIATED ACQUISITION PROGRAMS

7.1. Purpose. Navy acquisition programs are categorized at the time of program initiation as one of four acquisition categories (ACATs) or as an Abbreviated Acquisition Program. Also, modifications and upgrades to programs out of production should be designated as either new start ACAT programs or Abbreviated Acquisition Programs. The 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.

#### 7.2. Source Documents:

DoDI 5000.02, encl (1)

SECNAVINST 5000.2E, Chapter 1 and the DON Acquisition and Capabilities Guidebook, encl (1)

7.3. Definition. The defining criteria and associated milestone decision authority (MDA) for each ACAT level, both for weapon systems and information technology programs, are shown in the table at the end of Part A. Unless otherwise stated, dollar criteria shown in the table are cumulative for the entire life, or anticipated life, of the program.

#### 7.4. Abbreviated Acquisition Programs

7.4.A SECNAVINST 5000.2E, Chapter 1, paragraph 1.4.6, 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) Do not require operational test and evaluation, as concurred with in writing by the appropriate Operational Test Agency.
- 2) For weapon systems programs,
  - a. have total development costs of less than \$10 million for the life of the program, and
  - b. have total procurement/services costs of less than \$50 million for the life of the program, and
  - c. have total procurement/services costs of less than \$25 million for each year of the program.

7.4.B. An ACAT program or a potential ACAT program may not be artificially divided into separate entities for the purpose of qualifying as several Abbreviated Acquisition Programs in the place of the one ACAT program. 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.

7.4.C. 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.

#### 7.5. ACAT Designation and Designation Change Requests

7.5.A. 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, PMs should prepare a memorandum to the designating authority using the format found in the DON Acquisition and Capabilities Guidebook, encl (1), Annex 1-E. 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                | Under Secretary of Defense (Acquisition, Technology, and Logistics) (USD(AT&L)) |
| IC (Component)    | SECNAV or if delegated, ASN(RD&A) as the CAE                                    |
| IAC               | SECNAV or if delegated, ASN(RD&A) as the CAE                                    |
| IAM               | USD(AT&L), or designee  |
| II                | ASN(RD&A)   |
| III and IVT/IVM   | PEOs/Cognizant SYSCOMs/DRPMs  |

7.5.B. 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, regardless of the funding amounts involved.

7.6. Lessons Learned.

7.6.A. 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.

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

7.7. Urgent Capability Needs and Acquisition Processes. An urgent need is an exceptional request from a Navy or Marine Corps component commander for an additional warfighting capability critically needed by operating forces conducting combat or contingency operations. The two acquisition processes utilized to meet this need include the DON Urgent Needs Process (UNP) and the Rapid Deployment Capability (RDC) Process. UNP encompasses Navy urgent operational need (UON), Marine Corps urgent universal need statement (UUNS) and processes joint urgent operational needs (JUONs) that are assigned to the Department of the Navy. RDC provides the ability to react immediately to a newly discovered enemy threat(s) or potential enemy threat(s) or to respond to significant and urgent safety situations through special, tailored procedures. It is envisioned that most RDC procurement would evolve into a typical ACAT program after the initial urgent requirement is met. Additional information is available in SECNAVINST 5000.2E, Chapter 1, paragraph 1.8.

7.8. POC: Lola Scott, AIR-1.1, (301) 757-7228

| Acquisition Category   | Criteria for ACAT or AAP Designation   | Decision Authority   |
|--|--|--|
| ACAT I   | <ul style="list-style-type: none"> <li>• MDAP (10 U.S.C.) <ul style="list-style-type: none"> <li>▪ Dollar value for all increments of the program: estimated by the DAE to require an eventual total expenditure for research, development, and test and evaluation (RDT&amp;E) of more than \$480 million in Fiscal Year (FY) 2014 constant dollars or, for procurement, of more than \$2.79 billion in FY 2014 constant dollars</li> <li>▪ MDA designation</li> </ul> </li> <li>• MDA designation as special interest 1/</li> </ul>  | ACAT ID: DAE or as delegated<br><br>ACAT IC: Head of the DoD Component or, if delegated, the CAE (not further delegable) |
| ACAT IA 2/,3/  | <ul style="list-style-type: none"> <li>• MAIS (10 U.S.C. 2445a): A DoD acquisition program for an Automated Information System 4/ (AIS) (either as a product or a service<sup>5</sup>) that is either: <ul style="list-style-type: none"> <li>○ Designated by the MDA as a MAIS program; or</li> <li>○ Estimated to exceed: <ul style="list-style-type: none"> <li>▪ \$40 million in FY 2014 constant dollars for all expenditures, for all increments, regardless of the appropriation or fund source, directly related to the AIS definition, design, development, deployment, and sustainment, and incurred in any single fiscal year; or</li> <li>▪ \$165 million in FY 2014 constant dollars for all expenditures, for all increments, regardless of the appropriation or fund source, directly related to the AIS definition, design, development, and deployment, and incurred from the beginning of the Materiel Solution Analysis Phase through deployment at all sites; or</li> <li>▪ \$520 million in FY 2014 constant dollars for all expenditures, for all increments, regardless of the appropriation or fund source, directly related to the AIS definition, design, development, deployment, operations and maintenance, and incurred from the beginning of the Materiel Solution Analysis Phase through sustainment for the estimated useful life of the system.</li> </ul> </li> </ul> </li> <li>• MDA designation as special interest 1/</li> </ul> | ACAT IAM: DAE or as delegated<br>ACAT IAC: Head of the DoD Component or, if delegated, the CAE (not further delegable)   |
| ACAT II  | <ul style="list-style-type: none"> <li>• Does not meet criteria for ACAT I or IA</li> <li>• Major system (10 U.S.C. 2302d) <ul style="list-style-type: none"> <li>○ Dollar value: estimated by the DoD Component head to require an eventual total expenditure for RDT&amp;E of more than \$185 million in FY 2014 constant dollars, or for procurement of more than \$835 million in FY 2014 constant dollars</li> <li>○ MDA designation 5/ (10 U.S.C. 2302)</li> </ul> </li> </ul>   | CAE or the individual designated by the CAE 6/   |
| ACAT III   | <ul style="list-style-type: none"> <li>• Does not meet criteria for ACAT II or above</li> <li>• An AIS program that is not a MAIS program</li> </ul>   | Designated by the CAE 6/   |
| <p>1/ The Special Interest designation is typically based on one or more of the following factors: technological complexity; congressional interest; a large commitment of resources; or the program is critical to the achievement of a capability or set of capabilities, part of a system of systems, or a joint program. Programs that already meet the MDAP and MAIS thresholds cannot be designated as Special Interest.</p> <p>2/ When a MAIS program also meets the definition of an MDAP, the DAE will be the MDA unless delegated to a DoD Component or other official. The DAE will designate the program as either a MAIS or an MDAP, and the Program Manager will manage the program consistent with the designation.</p> <p>3/ The MDA (either the DAE or, if delegated, the DoD Chief Information Officer (CIO) or another designee) will designate MAIS programs as ACAT IAM or ACAT IAC. MAIS programs will not be designated as ACAT II.</p> <p>4/ AIS: A system of computer hardware, computer software, data or telecommunications that performs functions such as collecting, processing, storing, transmitting, and displaying information. Excluded are computer resources, both hardware and software, that are an integral part of a weapon or weapon system; used for highly sensitive classified programs (as determined by the Secretary of Defense); used for other highly sensitive information technology (IT) programs (as determined by the DoD CIO); or determined by the DAE or designee to be better overseen as a non-AIS program (e.g., a program with a low ratio of RDT&amp;E funding to total program acquisition costs or that requires significant hardware development).</p> <p>5/ When determined by the USD(AT&amp;L) (or designee), IT services programs that achieve the MAIS threshold will follow the procedures applicable to MAIS programs specified in this instruction. All other acquisitions of services will comply with Enclosure 9 of DoD Instruction 5000.02 (Reference (h)) until cancelled by issuance of the new acquisition of services instruction.</p> <p>6/ As delegated by the Secretary of Defense or Secretary of the Military Department.</p> |  |  |

## CHAPTER VII: MILESTONE REVIEW/APPROVAL PROCESS

### PART B: ACQUISITION MILESTONES AND PHASES

7.9. 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 phase of the acquisition life cycle.

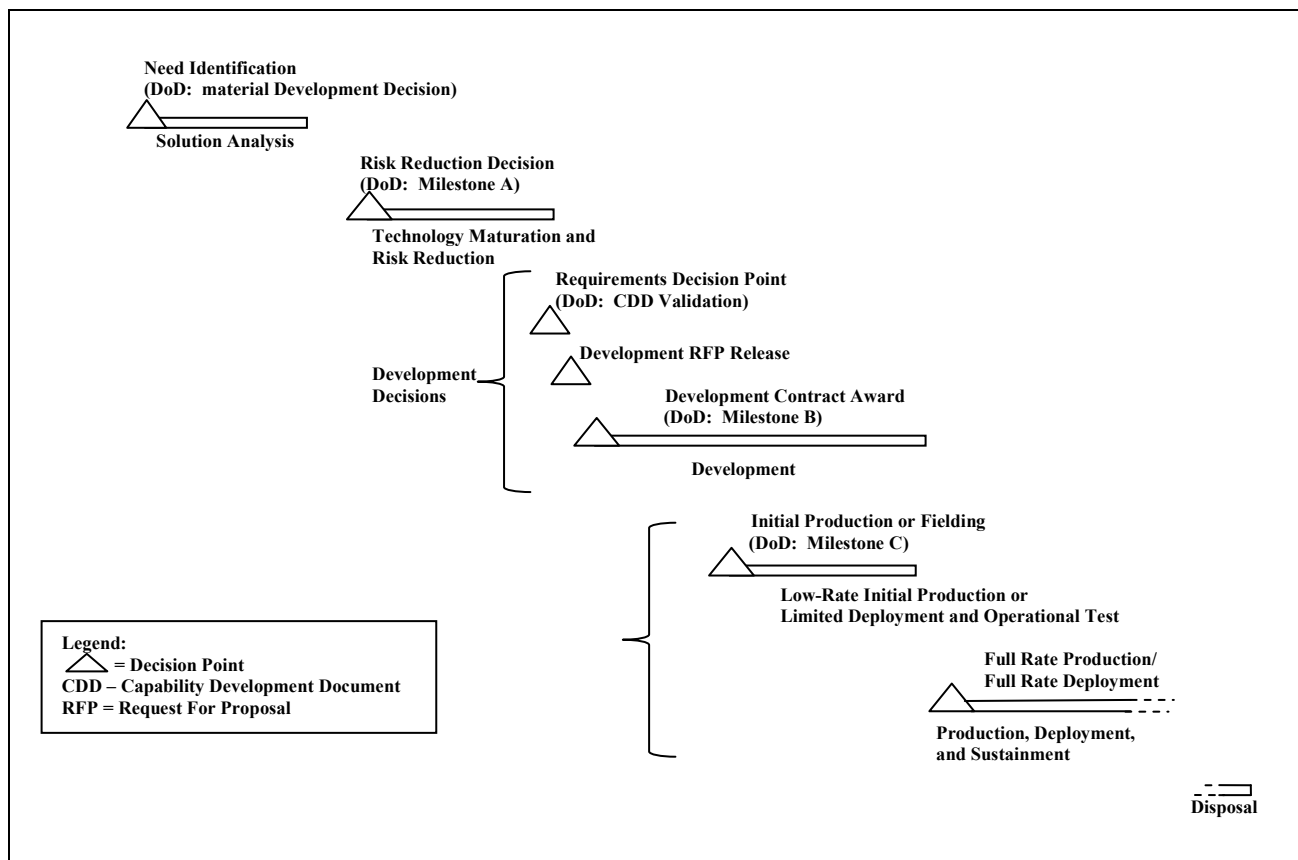
7.10. Source Documents:

DoDI 5000.02  
 SECNAVINST 5420.188F  
 NAVAIRINST 5000.20A  
 SECNAVINST 5000.2E

7.11. Generic Acquisition Program Structure and Decision Points

a. Generic Acquisition Program Structure. A generic product acquisition program would follow the structure depicted Figure 1, below, which illustrates the sequence of decision events in a generic program, which could be a Defense program or, except for the unique DoD terminology, a commercial product.

Figure 1 - Generic Acquisition Phases and Decision Points





## b. Generic Acquisition Milestones and Decision Points

1. Need Identification, called the Materiel Development Decision by DoD, is the decision that a new product is needed and that activities to analyze alternative solutions will occur.
2. Risk Reduction Decision, called Milestone A by DoD, is an investment decision to pursue specific product or design concepts, and to commit the resources required to mature technology and/or reduce any risks that must be mitigated prior to decisions committing the resources needed for development leading to production and fielding.
3. The decision to commit resources to the development of a product for manufacturing and fielding, called Engineering and Manufacturing Development (EMD) by DoD, follows completion of any needed technology maturation and risk reduction. DoD breaks this commitment into three related decisions: (1) a requirements decision point (called the CDD Validation Decision by DoD); (2) a decision to release a solicitation for development to industry, called the Development Request for Proposals (RFP) Release Decision Point; and (3) a decision to award the contract(s) for development, called Milestone B by DoD. Formally, the development contract award authorized at DoD's Milestone B is the critical decision point in an acquisition program because it commits the organization's resources to a specific product, budget profile, choice of suppliers, contract terms, schedule, and sequence of events leading to production and fielding. In practice however, almost all of these decisions have to be made prior to the release of the RFP to industry in order to inform the bidders' proposals. For DoD, the Development RFP Release Decision Point is the point at which plans for the program must be most carefully reviewed to ensure all risks are understood and under control, the program plan is sound, and that the program will be affordable and executable.
4. The decision to enter production follows development and testing. For DoD, the production decision is normally broken into two DoD decisions: (1) Low-Rate Initial Production (LRIP), called Milestone C by DoD, or Limited Deployment; and (2) the Full-Rate Production or Full Deployment Decision.

a. The Initial Production Decision. The production decision, based primarily on developmental testing results and usually also informed by an operational assessment, commits the resources (i.e., authorizes proceeding to award the contract(s)) required to enter production and begin deployment of the product. Evidence from testing that the product design is stable is the critical consideration for this decision. The commitment to enter production is very expensive and difficult to reverse.

b. Full Rate Production or Full Deployment Decision. The decision, following completion of operational testing of representative initial production products, to scale up production and/or deployment.

5. While these generic decision points and milestones are standard, MDAs have full latitude to tailor programs in the most effective and efficient structure possible, to include eliminating phases and combining or eliminating milestones and decision points, unless constrained by statute. Paragraph 5d provides more detail about the standard structure, milestones, and decision points as they apply to most defense acquisition programs. For additional information on acquisition decision points and phase activities, please see DoDI 5000.02, Pages 16 – 30.

7.12. DoDI 5000.02 at <http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf> identifies and describes the following 6 Defense Acquisition Program Models:

Model 1: Hardware Intensive Program

Model 2: Defense Unique Software Intensive Program

Model 3: Incrementally Deployed Software Intensive Program

Model 4: Accelerated Acquisition Program

Model 5: Hybrid Program A (Hardware Dominant)

Model 6: Hybrid Program B (Software Dominant)

Each basic model is tailored to the dominant characteristics of the product being acquired (e.g., hardware intensive products such as most weapon systems). Four basic models (1-4) serve as examples of defense program structures

tailored to the type of product being acquired or to the need for accelerated acquisition. Two additional hybrid models (5&6) combine the features of multiple basic models. The hybrids are described because many products will require combining models, such as a weapons systems development that includes significant software development. Model 1 as illustrated in the model comparisons section below, is a model of a hardware intensive development program such as a major weapons platform. This is the classic model that has existed in some form in all previous editions of DoDI 5000.02. It is the starting point for most military weapon systems; however, these products almost always contain software development resulting in some form of Model 5. Acquisition programs should use these models as a starting point in structuring a program to acquire a specific product.

7.13. Acquisition Model Comparison. There are three previous program acquisition models as indicate later in this chapter. These models were used based on previous versions of DoDI 5000.02, (2003, 2008 and 2011) and a point in time when a program entered those acquisition cycles.

7.14. 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. Many if not most ACAT IIIs and IVs will not have a formal Milestone A, and those that are based on a commercial off-the-shelf (COTS) may not need a Milestone B and an EMD Phase. 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. Tailoring is always appropriate when it will produce a more efficient and effective acquisition approach for the specific product.

7.15. Milestone Approval.

7.15.A. 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 (USD (AT&L)) at a Defense Acquisition Board (DAB). 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 Program Decision Meeting (PDM). A formal review at which a milestone decision is not being made will be referred to as a Program Review (PR). The PDM and PR procedures are found in SECNAVINST 5420.188F of 2 November 2005. 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 PDMs. The scheduling of milestone reviews should be arranged by the PM's office with the MDA's office.

7.15.B. For ACAT I and II programs that have the MDA at a higher level than the PEO or SYSCOM, arrangements for a PDM, chaired by ASN (RD&A), should be made by the PM'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 PDM before proceeding to a Defense Acquisition Board (DAB) review at the USD (AT&L) level). Prior to proceeding to a PDM, 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 5000.20A of 23 August 2010. PMs should consult with their program's PEO/AIR-1.0 acquisition support staff on administrative procedures for scheduling and conducting ARBs. An automated NAVAIR/PEO Acquisition Review Board/Program Decision Meeting schedule can be found on the Acquisition Management System and is maintained by Colin Grey, AIR-1.1, [colin.grey@navy.mil](mailto:colin.grey@navy.mil).

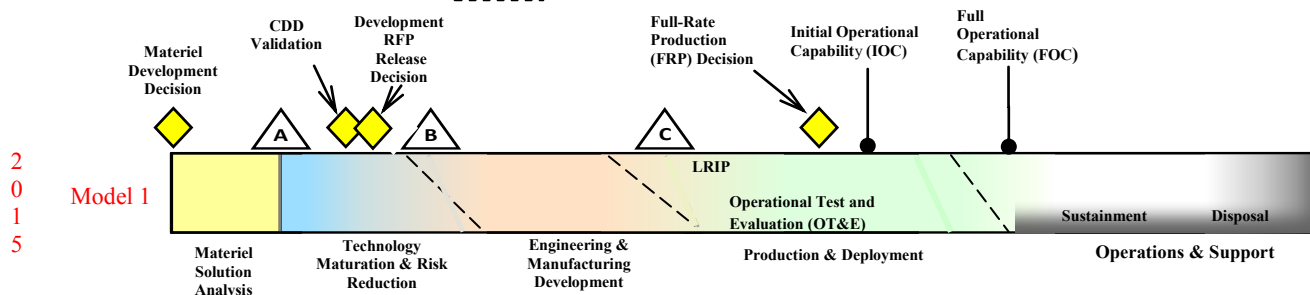
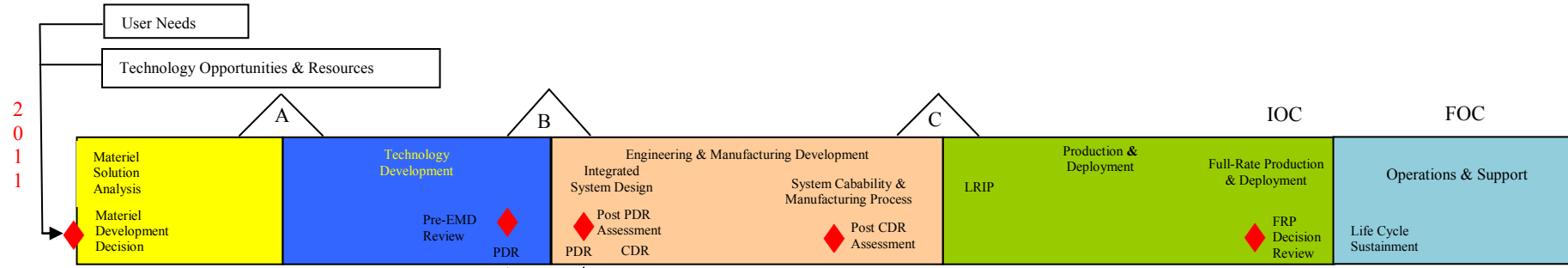
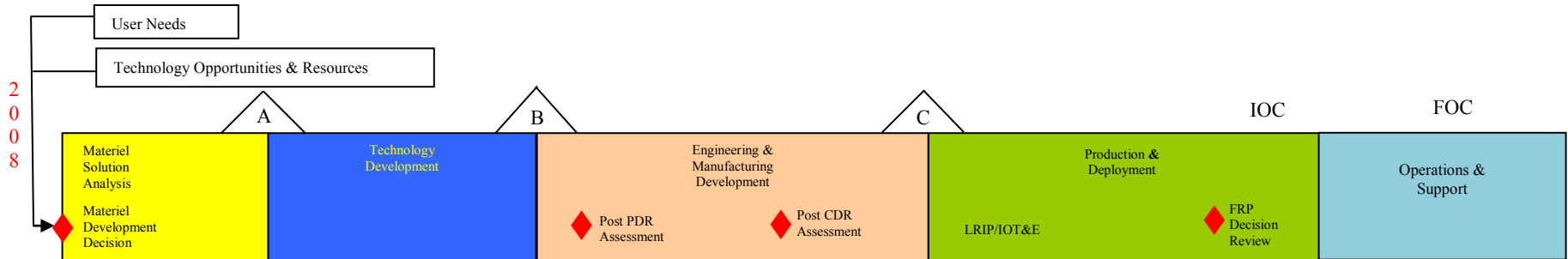
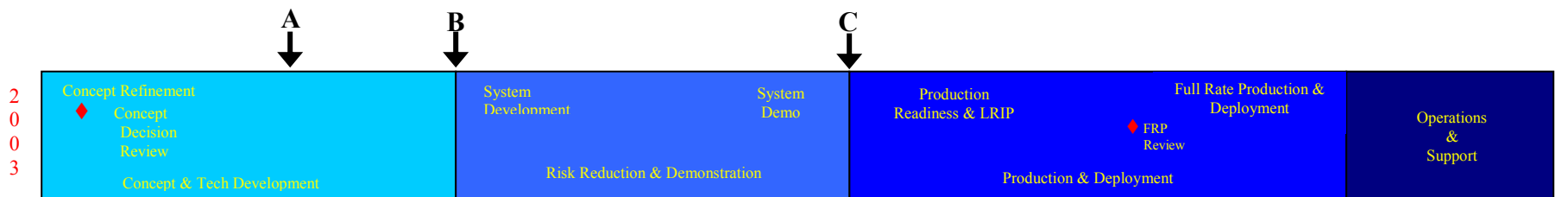
7.15.C. For Naval Aviation Weapon System ACAT III and IV programs, the MDA is either the cognizant PEO or, for those programs not managed within one of the PEO organizations, NAVAIR's Assistant Commander for Acquisition (AIR-1.0). Direction on the conducting of ACAT III and IV milestone reviews can be found in NAVAIRINST 5000.20A; in addition each of the PEOs and AIR-1.0 has internal policies for conducting milestone and pre-milestone reviews.

7.15.D. Actual milestone approval is recorded in an Acquisition Decision Memorandum (ADM) that is prepared by the PM and is approved the MDA. The ADM authorizes the program to proceed to the next acquisition phase, provides specific direction to the program manager, and establishes exit criteria, which are critical results or events that must be attained in order to exit the next acquisition phase prior to proceeding to the next milestone. Per SECNAVINST 5420.188F, the program manager should propose the exit criteria for the next acquisition phase at the conclusion of the milestone review presentation. Additionally, OSD memo dated 23 Jun 11 Subj: Improving

Milestone Process Effectiveness outlines changes to the milestone review process. This memo may be found at:  
[https://acc.dau.mil/adl/en-US/463388/file/59480/OSD%20memo%20-%20Improve\\_Milestone\\_Process-23Jun11.pdf](https://acc.dau.mil/adl/en-US/463388/file/59480/OSD%20memo%20-%20Improve_Milestone_Process-23Jun11.pdf).

7.16. POC: Florine James, AIR-1.1, (301) 757-9010

# MODEL COMPARISONS



**Legend:** = Milestone Decision Review = Decision Point

## CHAPTER VII: MILESTONE REVIEW/APPROVAL PROCESS

### PART C: INTEROPERABILITY

7.17. Interoperability Certifications. There are two required interoperability-related certifications: (1) Net-Ready Key Performance Parameter (NR KPP) certification (provided by the Joint Staff DDC4/Cyber Directorate (J-6)), and (2) Joint Interoperability Certification (based on Joint Interoperability Test Command (JITC)-certified interoperability testing results). The first is performed prior to both acquisition milestones B and C, while the second occurs concurrent with or subsequent to operational testing (see “Interoperability Testing” below).

7.17.A. The NR KPP certification verifies that IT and NSS programs of all ACATs adequately address infrastructure requirements, dependencies and interface requirements between systems, the availability of bandwidth and spectrum support, and implementation of the DoD Net-Centric Data Strategy. Joint Staff J-6 reviews, comments on, and certifies NR KPPs using the NR KPP certification process outlined in DoDI 8330.01 and the JCIDS Manual. Further information and guidance on NR KPP development is at:

[https://intellipedia.intelink.gov/wiki/Net\\_Ready\\_Key\\_Performance\\_Parameter\\_\(NR\\_KPP\)\\_Manual](https://intellipedia.intelink.gov/wiki/Net_Ready_Key_Performance_Parameter_(NR_KPP)_Manual).

7.17.B. JITC-certified interoperability testing evaluates the operational effectiveness of the system in meeting its NR KPP requirements (including interfaces, enterprise-level exchange requirements, and other interoperability requirements). A joint interoperability certification is issued when a system has met all of its interoperability requirements, to verify that the system’s interoperability status is sufficient to support a fielding decision.

7.18. Interoperability Testing. [The following text is extracted from DoDI 8330.01, Interoperability of Information Technology (IT), Including National Security Systems (NSS), 21 May 2014.] “Interoperability must be assessed for certification through formal developmental and operational test and evaluation by DoD Component developmental test agencies, OTA, JITC, joint exercises, other formal assessments, or a combination of any of these. JITC serves as the Joint Interoperability Certification Authority for the DoD. As such, JITC must develop procedures to verify, assess, and certify, through testing (or review of other organizations’ testing), the interoperability of IT (ACAT and non-ACAT).” For further details, refer to the JITC Interoperability Process Guide, available at : [http://nit-jitc.nit.disa.mil/isg/downloads/IPG\\_Version\\_2.pdf](http://nit-jitc.nit.disa.mil/isg/downloads/IPG_Version_2.pdf).

7.19. ISP Assessment Tool. The GIG Technical Guidance Federation (GTG-F), operated and maintained by the Defense Information Systems Agency (DISA), supports document submission, assessor review and comment submission, comment adjudication, and a consolidated review comment rollup. The GTG-F is maintained on NIPRNet at <https://gtg.esd.disa.mil/>. Per the DASN (RDT&E) memo, Implementing the DoD Interoperability Guidance, 26 July 2012, all unclassified ISPs must be submitted via the GTG-F site, and subsequent review comments will be posted therein. The Navy POC for GTG-F entry is DASN (RDT&E) SEO/ISI, Mr. Ken Ives, (301) 757-3257. Program management offices shall access the GTG-F Program Management Portal (PM-P) directly for submission of ISPs and subsequent monitoring of their review progress. Access is controlled by PKI registration (via Common Access Card (CAC)) and may be requested via a link on the website. Requestors must have a referral from a current GTG-F registered user. As of March 2015, a SIPRNet version of GTG-F is still in development. For classified ISP submissions, contact DASN (RDT&E) SEO for guidance and assistance.

7.20. Information Support Plans. The ISP analyzes the scope of external C4ISR interfaces and information support required by the program, as presented in the NR KPP. It examines the data flows and system dependencies, and the ability of the identified external programs/systems to provide necessary support, to determine potential interoperability problems. The ISP also identifies external C4ISR support that must be provided to conduct the development phase, and to execute both the TEMP and the training plan. If any issues are discovered, they are documented in the ISP along with the PM’s mitigation strategies. The ISP operational concept and operational requirements are taken from the CDD/CPD NR KPP, as are the bulk of the C4ISR architecture products. An initial ISP—correlated with the CDD—is due prior to Preliminary Design Review (PDR), to provide the basis for the interoperability engineering processes. The ISP is submitted for DON and DoD/Joint assessment via the GTG-F Enhanced ISP (EISP) tool (see above). In accordance with SECNAVINST 5000.2E, ISPs are approved by the applicable PEO/SYSCOM/DRPM, subsequent to completion of the formal review process, adjudication of outstanding comments, and ISP acceptance by DASN (RDT&E). For further details on ISP preparation and submission, refer to Chapter VIII, Part C of this Guide.

7.21. POC: Ken Ives, Systems Requirements Analysis and Architectures, AIR-4.1.17, (301) 757-3257

## CHAPTER VIII: PROGRAM AUTHORIZATION PROCESS

### PART A: ACQUISITION STRATEGY (AS)

8.1. Purpose. The AS 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, the overall acquisition approach including the use of evolutionary acquisition, risk management, affordability requirement, and program management including resources and oversight, interoperability, the use of open systems, the support strategy, and the contracting strategy. The AS shall be developed to meet the specific needs of individual programs. An AS is also required for acquisitions of services to ensure adequate planning and oversight (see Chapter XV, Part J on the Management and Oversight Process for the Acquisition of Services (MOPAS)). An approved OSD Acquisition Strategy template dated 20 Apr 2011, can be found on the AMS Knowledge Management Portal, using the Document Repository drop down and clicking “Templates” under the Resources section.

#### 8.2. Source Documents:

The Defense Acquisition Guidebook, Section 2  
SECNAVINST 5000.2E, Chapter 2, Paragraph 2.4  
DON Acquisition and Capabilities Guidebook, encl (3), Section 3.4  
NAVAIRINST 4200.36E  
DoDI 5000.02, 7 January 2015, Table 2

8.3. When Required. A program’s AS is statutory for MDAPs at Milestone A. It is regulatory for all other program types at Development RFP Release, Milestone C and Full Rate Production/Full Deployment Decision, including MDAPs after Milestone A. The AS will include statutory and regulatory information. Major changes to the plan reflected in the AS require MDA approval. Documentation will be submitted no later than 45 calendar days before each planned review.

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

8.5. Format. The above listed source document references provide a detailed description of topics that should be considered for inclusion in the AS. Specific attention shall be given to overall affordability; the competition strategy and incentive structure; engineering trades and their relationship to program requirements; should cost initiatives, risk management; and the rationale supporting the program schedule. PMs are to tailor the AS to each individual program’s needs and the expectations of the program’s MDA. The requirement for MDA AS approval can actually be met via a briefing to which the MDA gives verbal or written consent, as opposed to an actual AS document; however, this approach is rarely used and only with the prior approval of the MDA. Both the AS Outline and guidance on the automated AP/AS template can be found at <https://myteam2.navair.navy.mil/corpapps/ams/home/ap/sitepages/pt.aspx>.

#### 8.6. Lessons Learned

8.6.A. In preparing the AS, the PM should rely on support from cognizant elements of the various competencies. In addition, draft copies of the AS should be coordinated with the cognizant PEO/AIR-1.0 acquisition support staff. 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 the necessary staffing prior to approval.

8.6.B. If desired, at the discretion of the PEO, AIR-1.0, or other AP approval authority, programs may combine the AS and the AP into a single document. Such a consolidation is more practical in the case of ACAT III and IV programs, where the AP approval level MDA (PEO, AIR-1.0, or other AP approval authority) is the same as the AS approval level MDA. There is an electronic AP/AS tool available to assist with drafting this combined document available at <https://myteam2.navair.navy.mil/corpapps/ams/home/ap/sitepages/pt.aspx>. See Part B of this Chapter for more details on APs. See Chapter VIII Part E for more details on Program Tailoring/Streamlining.

8.7. POC: Lola Scott , AIR-1.1, (301) 757-7228

## CHAPTER VIII: PROGRAM AUTHORIZATION PROCESS

### PART B: ACQUISITION PLAN (AP)

8.8. Purpose. The AP is the principal document for in-depth program planning, review, and oversight. The purpose of this planning is to ensure that the Government meets its needs in the most effective, economical, and timely manner.

8.9. Source Document/Guidance:

Defense Federal Acquisition Regulations Supplement (DFARS) subpart 207.1 (provides overall policy, including dollar threshold requirements) at [http://www.acq.osd.mil/dpap/dars/dfars/html/current/207\\_1.htm](http://www.acq.osd.mil/dpap/dars/dfars/html/current/207_1.htm)

DFARS's Procedures, Guidance, and Information (PGI) 207.1 (provides AP content guidance) at [http://www.acq.osd.mil/dpap/dars/pgi/pgi\\_hm/PGI207\\_1.htm](http://www.acq.osd.mil/dpap/dars/pgi/pgi_hm/PGI207_1.htm)

NAVAIRINST 4200.36E (provides guidance on preparation and coordination of APs for NAVAIR and Naval Aviation PEO programs). NAVAIRINST 4200.36E can be found at: <https://myteam.navair.navy.mil/corpapps/ams/home/res10/documents/NAVAIRINST%204200.36E%20Acquisition%20Plans.pdf>.

8.10. Critical Prior Events. APs will not be approved unless there is documentation, usually in the form of a capabilities/requirements document, approved by the OPNAV sponsor. APs for ACAT programs cannot be approved unless the program has an Acquisition Strategy, which is approved by the milestone decision authority (MDA), although for some programs (particularly ACAT IIIs and IVs) the Acquisition Strategy and AP may be combined if the MDA allows.

8.11. When Required

8.11.A. While AP approval is contingent upon prior approval of the appropriate requirements document 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 initial contract award is necessary. An approved AP is absolutely required for contract award.

8.11.B. Per the DFARS, APs are required for development programs with a total value of \$10M or more, and production/service programs with a total value of \$50M or more, or with a value of \$25M or more in any one fiscal year (for these figures, no FY constant dollar year is specified in the DFARS). Information Technology programs also fall under these AP requirement thresholds.

8.11.C. The AP is not required for a final buy-out, one-time buy, or life-of-type buys. These buys refer to a single contract that covers all known present and future requirements. This exception does not apply to a multi-year contract or a contract with options or phases. See NAVAIRINST 4200.36E for the categories of programs for which APs which were previously exempt, but which now may be tailored as to content (per Navy Marine Corps Acquisition Regulations Supplement (NMCARS) 5207.103(d)(i) at <http://farsite.hill.af.mil/reghtml/regs/other/nmcars/5207.htm>.

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

8.12. Responsibility

8.12.A. 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.

8.12.B. In preparing the AP, the program manager should rely on his or her Integrated Program Team (IPT) members and their respective competencies for contracting, engineering, logistics, cost, security, business/financial, training, production management, testing, counsel, and any other support required.

8.12.C. If separate documents (such as the Systems Engineering Plan, Acquisition Strategy, Acquisition Logistics Support Plan, Test and Evaluation Master Plan, etc.) address in detail subjects included in the AP content

requirements, statements on those subjects given in the AP should be very concise and only provide “highlights” of the program’s approach to that area and refer to the cognizant document. More detailed explanations or descriptions that are covered elsewhere in separate documents should not be duplicated in the AP. When appropriate, the team should coordinate development of the draft AP with AIR-4.1G, the Policy and Standardization Competency; AIR-4.0P for flight clearance requirements; AIR-6.8.5 for the Technical Data Package (TDP); NAVSUP Weapon Systems Support (WSS); and the Aviation Support Equipment Program Office (PMA260) for Consolidated Automated Support System (CASS) support.

8.13. Format. There is no mandatory AP format (see NAVAIRINST 4200.36E). However, the DON AP Guide contains a recommended format and the NAVAIR AP Tool at <https://myteam2.navair.navy.mil/corpapps/ams/home/ap/sitepages/pt.aspx>, contains a standard AP format. APs should address each of the requirements cited in FAR 7.105 and DFARS PGI 207.105.

8.14. Review & Approval. Once completed and concurred with by the IPT, the AP is submitted for signature. The program manager, the procuring contracting officer, and either the chief of the contracting office for NAWC acquisitions supporting non-NAVAIR/non-PEO programs, the cognizant AIR-2.0 SES department head for all acquisitions supporting AIR-1.0/PEO programs, or other Requiring Activity Level 1, will sign/concur on the AP signature page. PEO or AIR-1.0 Programs with individual contract actions (including options) > \$50M or < \$100M, shall be signed by the PEO or AIR-1.0. Non-PEO or Non-AIR-1.0 Programs with individual contract actions or Acquisitions (including options) for production or services > \$50M or < \$100M or for development > \$10M or < \$100M shall be signed by the Requiring Activity Level 1. Non-PEO or Non-AIR-1.0 Programs or Acquisitions ≤ to \$50M that contain an individual contract action ≥ \$25M shall be signed by the Requiring Activity Level 1. If the AP includes a planned contract valued at \$100M (including value of any options) or more which is not reflected in some detail in a current Acquisition Strategy approved by AT&L or RDA, then the AP will need to be approved/signed by DASN (AP). This is based on the value of the individual contracts described in a program's AP; not on the cumulative value of the program's contracts described in the AP. For example, if the program's AP includes 3 individual contracts valued at \$20M, \$50M, and \$75M then the AP may be approved locally because none of the individual contracts are ≥\$100M but, if the program's AP includes 3 individual contracts valued at \$20M, \$50M and \$120M then DASN (AP) is the approval authority.

#### 8.15. Revisions

8.15.A. 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 4200.36E.

8.15.B. If the extent of changes to a program warrants a complete rewrite of the AP, an entirely new document will need to be written, reviewed and staffed, and approved.

8.15.C. For a less than complete rewrite, 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. Review of the change memorandum may be confined to those codes responsible for or affected by the particular functional areas being changed. If the change(s) are significant or have an impact on the program’s acquisition or contracting strategy, the same signatures as on the original AP will be required on the change memorandum. However, if the change(s) are relatively minor and the acquisition/contracting strategy is not being altered, the program manager should consult with the respective PEO acquisition staff to determine who needs to sign the change memorandum.

#### 8.16. Lessons Learned:

8.16.A. The AP should, whenever possible, 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.

8.16.B. 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 dealing with proposed sources and basis for selection, small business consideration, competition, source selection procedures, other contract/business considerations and risks.



8.16.C. 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.

8.17. POC: Florine James, AIR-1.1, (301) 757-9010

## CHAPTER VIII: PROGRAM AUTHORIZATION PROCESS

### PART C: INFORMATION SUPPORT PLAN (ISP)

8.18. Purpose. As stated in DoDI 8330.01, “The ISP is a key document in achieving interoperability certification. The ISP describes IT and information needs, dependencies, and interfaces for programs. It focuses on the efficient and effective exchange of information that, if not properly managed, could limit or restrict the operation of the program in accordance with its defined capability.”

8.19. Source Documents:

DoDI 8330.01, 21 May 2014

DoDI 5000.02, 7 Jan 15

SECNAVINST 5000.2E

JCIDS Manual [online]

Defense Acquisition Guidebook [online]

DoD Architecture Framework (DoDAF), Version 2.02, Change 1, 31 Jan 15

Navy Enhanced Information Support Plan (EISP) Guidebook Version 2.0, June 2015

NAVAIR Standard Work Package, SWP4117-001, “Information Support Plan Review and Approval,” 18 Mar 15

NAVAIR Standard Work Package, SWP4117-002, “Information Support Plan Development and Update,” 18 Mar 15

8.20. Background. DoDI 8330.01 defines ISPs and provides specific guidance for their submission, and describes the associated supportability assessment and certification processes. The GIG Technical Guidance Federation (GTG-F) resource contains mandatory procedures and formats for ISPs. These procedures and formats are fleshed out and illustrated in the Navy EISP Guidebook. DoDI 5000.02 ties the development and submission of ISPs to milestone decision reviews in the defense acquisition management process, for all Acquisition Category (ACAT) programs. SECNAVINST 5000.2E implements the DoD ISP policy and procedures for the Navy. The DASN (RDT&E) Systems Engineering Office (SEO) is the DON principal point of contact for ISP issues, processes, and policies.

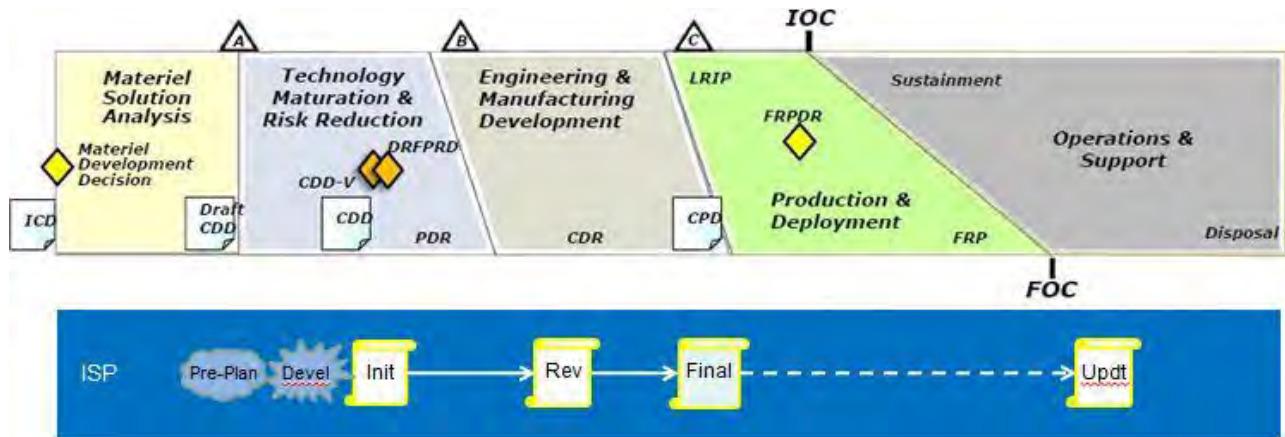
8.21. Primary Uses. The process of creating an ISP forces a critical examination of the interfaces external to, and the information support required by, the platform/system. This examination brings to light existing or potential shortfalls that could hamper overall system success, as measured against the operational requirements in the CDD/CPD (i.e., the Net-Ready Key Performance Parameter (NR KPP)). These interoperability and supportability issues are then addressed by the relevant combatant commands/staffs/agencies (CC/S/As) early in the acquisition process, so that cost-effective solutions with broad applicability may be found. The ISP 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.

8.22. Development. To assist program managers in meeting the requirements of the above policies, NAVAIR has established a Systems Requirements Analysis and Architectures Division (AIR-4.1.1.7) within the Systems Engineering department. The competency will work with program teams throughout the entire ISP development process assisting with initial interoperability requirements interpretation, access to related systems’ architecture data, mission architecture development and analysis, specification development, and related document review/assessment. Preparing offices are also encouraged to contact the DASN (RDT&E) SEO for guidance in developing and reviewing the document, and the DoD CIO Governance Directorate for further information on the formal DoD/Joint-level review process. Please refer to the Navy EISP Guidebook for more details concerning ISP preparation.

- Process. The ISP 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, as their perspectives can preclude potentially serious misrepresentations in or omissions from the ISP. In accordance with NAVAIR Standard Work Package SWP4117-001, the resulting draft ISP must be coordinated through the NAVAIR Systems Requirements Analysis and Architectures office (AIR-4.1.1.7) for a NAVAIR interoperability review. After AIR-4.1.1.7 reviews the ISP draft it is reviewed at the Navy level, prior to its being submitted for DoD/Joint review (if

required). The comments generated as a result of these reviews are provided to the PM for adjudication and issue resolution, and incorporation of the appropriate revisions into the ISP. A copy of the final, PM-signed document is then submitted electronically via the GTG-F for final acceptance. See Chapter VII, Part C of this Guide, under “ISP Assessment Tool,” for more information on the GTG-F.

- **Timeline.** The initial draft ISP is developed concurrently with the CDD. Both documents are reviewed prior to MS B, and the initial Net-Ready KPP certification is obtained based on the reviews. The figure below summarizes the requirements and acquisition interface, and shows the general timetable for document submission and subsequent re-validation/re-certification.



**Figure A-1. Generic Requirements/Acquisition and ISP Timelines**

In general, the process of developing an ISP 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 ISP Development Timeline**

| Activity   | Timeline  |
|--|---|
| Start initial plan preparation   | Minimum of 1 year prior to the program’s next major milestone |
| NAVAIR ISP review  | Approximately 21 days   |
| Navy internal review   | Approximately 30 days   |
| Submission of initial draft for DoD/Joint review                             | At least 6 months prior to the milestone                      |
| Review of initial draft  | Approximately 30 days   |
| 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 ISP current throughout the program’s acquisition process. The ISP 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. The ISP must be updated to accommodate any program changes incorporated in the CPD, and if the Net-Ready KPP threshold or C4ISR information support requirements for testing are updated, the TEMP also must be reviewed for possible revision. Close coordination with affected external organizations is essential!

8.23. **ISP Contents.** The Navy EISP Guidebook provides a thorough description of the ISP’s contents. Programs are well-advised to follow its guidance when developing their ISPs. Some key things to note (also see Lessons Learned):

- **Information Exchange Requirements (IERs)**
  - A single IER represents a one-way transfer of an information element (aggregated to top-level)—if a needline between two nodes on an Operational Resource Flow Description (OV-2) diagram represents a two way communication requirement, it would be entered into the Operational Resource Flow Matrix (OV-3) as

(a minimum of) two separate information exchange requirements. The needline can appear as a single line between nodes with arrowheads at each end to represent bi-directional information flows. All nodes referenced in an IER Matrix must be shown in the OV-2 diagram.

- Note that System Data Exchange Requirements (DERs) captured in the System Resource Flow Matrix (SV-6) extend the OV-3 Operational IERs—DERs (the machine-to-machine subset of these exchanges) flesh out the connectivity relationships between functional nodes with specific platform and systems data exchange attributes. Also, non-data exchanges (such as analog voice communications) do not appear in the SV-6.
- Process Analysis. Identify the requirements placed on C4ISR information systems external to the system being acquired. This includes any facility, platform, communications system/network, or database that provides information to, or receives information from the system being acquired. The primary purpose of this section is to identify all of the performers and the requirements your system places on them, and analyze whether the needed support will be available at IOC. This analysis may identify requirements that must be addressed through an update of the CDD/CPD for either the system being acquired or another information consumer/producer system, or through development of a new Initial Capabilities Document.
- 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, is summarized in the ISP. This is also presented in Part 1.b of the TEMP.
  - C4I support required for the system’s developmental and operational test and evaluation is also discussed in the ISP. 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 Issues. The ISP should contain an honest appraisal of the program’s risk relative to 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. 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.
- C4ISR Architectures. The GTG-F requires that the High-Level Operational Concept Graphic (OV-1) and the Systems Resource Flow Matrix (SV-6) be included within the EISP. Additional architecture products used in the ISP analysis should be provided in a separate appendix and referenced in the main body of the ISP. The JCIDS Manual [online] lists the minimum set of DoD Architecture Framework (DoDAF) artifacts required for CDDs/CPDs and the additional ones needed to support the NR KPP. These will be more than sufficient to conduct the ISP analysis. The Joint Interoperability Test Command (JITC) Interoperability Process Guide includes a shorter list of architecture products that JITC requires in order to conduct interoperability testing. The DoDAF 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 architecture data standards.
- Tailored ISP (TISP). Program managers for ACAT II and below programs not designated OSD Special Interest by DoD CIO may request approval to tailor the content of their ISP. The Component will make the final decision of the details of the tailored plan subject to certain minimums and any special needs identified by the J-6 for the Interoperability and Supportability Certification process. Programs must request approval from DASN (RDT&E) SEO—via OPNAV N2/N6F22—before submitting a Tailored ISP.

8.24. Who Reviews ISPs. DoDI 8330.01 states that “The DoD Component must lead the review of all ISPs, regardless of ACAT level.” The instruction also requires that all ISPs—regardless of ACAT—be entered into the GTG-F EISP tool. See Chapter VII, Part C of this Guide, under “ISP Assessment Tool,” for more information on the GTG-F EISP tool.

- In accordance with NAVAIR Standard Work Package SWP4117-001, programs submit draft ISPs to the AIR-4.1.1.7 office for review and comment prior to signature by the PM. Additionally, programs shall allow AIR-4.1.1.7 access to all architecture data developed during the ISP process.

- The Navy-level review includes DASN (RDT&E) SEO, DON CIO, OPNAV N2/N6F22, and SPAWAR. For programs with joint, multinational, or interagency interoperability requirements, the DoD-wide review will include, as a minimum, DoD CIO, DISA, JITC, and Joint Staff J6. Other DoD Component stakeholders will also participate.
- The Navy EISP Guidebook has additional information concerning the ISP review process.

8.25. Approval. After resolution of any outstanding issues and incorporation of the accepted changes, ISPs are approved by the PEO/SYSCOM/DRPM (as applicable to the program).

#### 8.26. Lessons Learned

- The basis of a successful Information Support Plan is a thorough understanding of the underlying CONOPs for the system being described, especially the information management aspects. In order to construct architecture products that represent the C4ISR requirements 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 ISP is finalized.
- Communities of Interest (COI) are the key to determining what data management strategy facets must be implemented by the program and what will be accommodated externally. Members of the COI(s) will collaborate and decide on key data elements, their authoritative sources, metadata tagging (both content and process (when/how)), and what net-centric enterprise services will be utilized and/or provided. See “Resources,” below, for a link to COI information.
- Currently, there are no *universal* (i.e., joint) architecture pick-lists from which to select functional node nomenclatures, activities, or information elements. However, the Joint Common Systems Function List (JCSFL) must be used to identify applicable system functions in a Systems Functionality Description (SV-4). Within the Navy, additional architecture element references have been developed, to include the Common Operational Activities List (COAL), Common Information Element List (CIEL), and Common Performer Lists (CPL) – both operational and system. Other element descriptions are currently being developed under DASN (RDT&E) tasking. These lists will be enabled via the Naval Enterprise Architecture Repository (NEAR), which is currently under development. *Note: DASN (RDT&E), as a member of the DON Integrated Architecture Environment (IAE) governance team, is developing a policy memo and associated Configuration Management procedures. When promulgated, these will implement the DON policy for use of the Naval Enterprise Architecture Repository.*

#### 8.27. Resources

- GIG Technical Guidance Federation (GTG-F), <https://gtg.csd.disa.mil/>
- Defense Acquisition Guidebook, <https://dag.dau.mil/Pages/Default.aspx>
- DoD Architecture Framework, <http://dodcio.defense.gov/Library/DoDArchitectureFramework.aspx>
- DoD COI Directory, <https://metadata.ces.mil/dse/cois/directory>
- JCIDS Manual (avail via <https://intellipedia.intelink.gov/wiki/JCIDS>)
- Joint Staff Net-Ready Key Performance Parameter (NR KPP) Resource Page, [https://intellipedia.intelink.gov/wiki/Portal:NR\\_KPP\\_Resource\\_Page](https://intellipedia.intelink.gov/wiki/Portal:NR_KPP_Resource_Page)
- Content Guide for the Net-Ready KPP, [https://intellipedia.intelink.gov/wiki/Content\\_Guide\\_for\\_the\\_Net-Ready\\_KPP](https://intellipedia.intelink.gov/wiki/Content_Guide_for_the_Net-Ready_KPP)
- Joint Interoperability Test Command (JITC) Interoperability Process Guide Version 2.0, 23 Mar 15, <http://jitc.fhu.disa.mil/organization/references/publications/index.aspx>
- Joint Common System Function List (JCSFL), [https://intellipedia.intelink.gov/wiki/Joint\\_Common\\_System\\_Function\\_List](https://intellipedia.intelink.gov/wiki/Joint_Common_System_Function_List)

8.28. POC: Ken Ives, Systems Requirements Analysis and Architectures, AIR-4.1.1.7, (301) 757-3257

## CHAPTER VIII: PROGRAM AUTHORIZATION PROCESS

### PART D: TEST AND EVALUATION MASTER PLAN (TEMP)

8.29. 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. The TEMP may be a stand-alone document, or it may be included as the T&E management section of a Single Acquisition Management Plan (SAMP). TEMPs are required for all Navy ACAT programs at Milestone B. The TEMP is updated at FRP DR, reviewed for currency and updated, if required, at Milestone C. When the program changes significantly, TEMPs may be updated via a formal revision, however minor changes may be accomplished via an N842 published page change. A current approved TEMP is required for milestone decision reviews, for conducting operational testing, and for certification of readiness for operational test phases. The NAVAIR process for TEMP drafting and approval is contained in NAVAIRINST 3960.2D.

#### 8.30. Reference Documents:

DoD Directive 5000.1  
 DoD Instruction 5000.02  
 Defense Acquisition Guidebook  
 SECNAVINST 5000.2E  
 NAVAIRINST 3960.2

8.31. Process. A completed TEMP is the culmination of a comprehensive coordinated effort between the PMA; the developmental test activities (both contractor and government), live fire test and evaluation, and operational test agencies; N842; the program sponsor; the Deputy Assistant Secretary of Defense for DT&E; and in the case of oversight programs, the Office of the Secretary of Defense (OSD). The TEMP process steps and associated notional timeframe are outlined 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<br>(May require multiple Test and Evaluation Working Level IPT (T&EWIPT) meetings) | Normally 3 months. Can be up to 6 months   |
| AIR-5.1.1 TEMP Executive Strategy Review (ESR)  | 1 week   |
| O-6 Review  | 1 month  |
| Post O-6 Review T&E WIPT  | 2 weeks  |
| PMA Approval and Submission   | 1 week   |
| Approval (ACAT Dependent)   | ACAT I - 5 months<br>ACAT II - 4 months<br>ACAT III - 3 months<br>ACAT IVT - 2 months<br>ACAT IVM - 1 month<br>Software Qualification T&E (SQT&E) - 2 months |

8.32. TEIN. Test and Evaluation Identification Numbers (TEINs) are used as a tracking number, among other purposes, for acquisition test programs. In general, a signed requirements document (e.g. ICD, CDD, and CPD) is

required before a TEIN is assigned. The Program Office Assistant Program Manager for Test and Evaluation (APMT&E) requests a TEIN via N88 and N842 assigns a TEIN that is used as the TEMP number.

8.33. Development. Key document inputs to the TEMP are: Initial Capabilities Document (ICD), Mission Needs Statement (MNS) (the MNS is a legacy document replaced by the ICD), the Analysis of Alternatives (AoA), Capabilities Development Document (CDD), Capability Production Document (CPD), Operational Requirements Document (ORD) (the ORD is a legacy document replaced by the ICD, CDD, and CPD), Software Statement of Functionality (SOF) (for software TEMPs), and the Capstone System Threat Assessment Report (CSTAR). The TEMP format found in the DoD Defense Acquisition Guidebook, is required per the SECNAV 5000.2. Deviation from the format must be approved by N842. Use of T&E WIPTs is 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 6 months or longer.**(see above table).

8.34. AIR 5.1.1 ESR. After the TEMP is mature and before it is distributed for 0-6 Review, an ESR shall be conducted. The ESR is a competency “graybeard” review to evaluate the draft TEMP for technical correctness, and adherence to DoD, OPNAV, and NAVAIR instructions and guidance.

8.35. 0-6 Review. When the TEMP is reasonably mature, it is distributed at the 0-6 level in parallel to all organizations that sign the TEMP. PEO staff review is considered part of the 0-6 review process. One month is the recommended timeframe for each organization to staff the draft TEMP for comments.

8.36. 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** (see above table).

8.37. Lessons Learned. Early involvement of the Operational Test Agency and DOT&E is crucial. Ensure sufficient time is allocated for TEMP review, re-write, and approval. T&E WIPTs are critical to timely TEMP development/updates, and to resolving issues and ensuring operational requirements, thresholds, resources, certification requirements and overall developmental, operational and integrated test plans are clear, accurate and consistent with overall strategy and other documentation.

8.38. POC: J. R. Mathers, AIR-5.1.1.4, (301) 757-9901

## CHAPTER VIII: PROGRAM AUTHORIZATION PROCESS

### PART E: PROGRAM TAILORING/STREAMLINING

#### 8.39. Source Documents:

DoDD 5000.1  
SECNAVINST 5000.2E

#### 8.40. Purpose

8.40.A. DoDD 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.”

8.40.B. 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, consolidate, 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 and/or the Engineering and Manufacturing Phase for a program where there is no Navy development effort.

8.41. 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 or IPT lead, who is obviously best situated to identify and recommend what should or shouldn't be tailored in regards to his or her program. DoDI 5000.02 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 utilizes program resources that could best be applied elsewhere. 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.

8.42. Responsibilities. 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.

#### 8.43. Lessons Learned

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

8.43.B. Capabilities 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.

8.43.C. 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 Chapter 2, Table E2T1 of SECNAVINST 5000.2E to ascertain which documents are required by statute.

8.43.D. Tailoring for ACAT IC and II programs should be coordinated with OASN (RD&A). PMs for whose programs a PEO is the MDA, should consult with their respective PEO acquisition support 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-1.0D should be consulted.



8.43.E. 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.

8.44. POC: Lola Scott, AIR-1.1, (301) 757-7228

## CHAPTER IX: PROCUREMENT PROCESS

### PART A: PID PROCESS

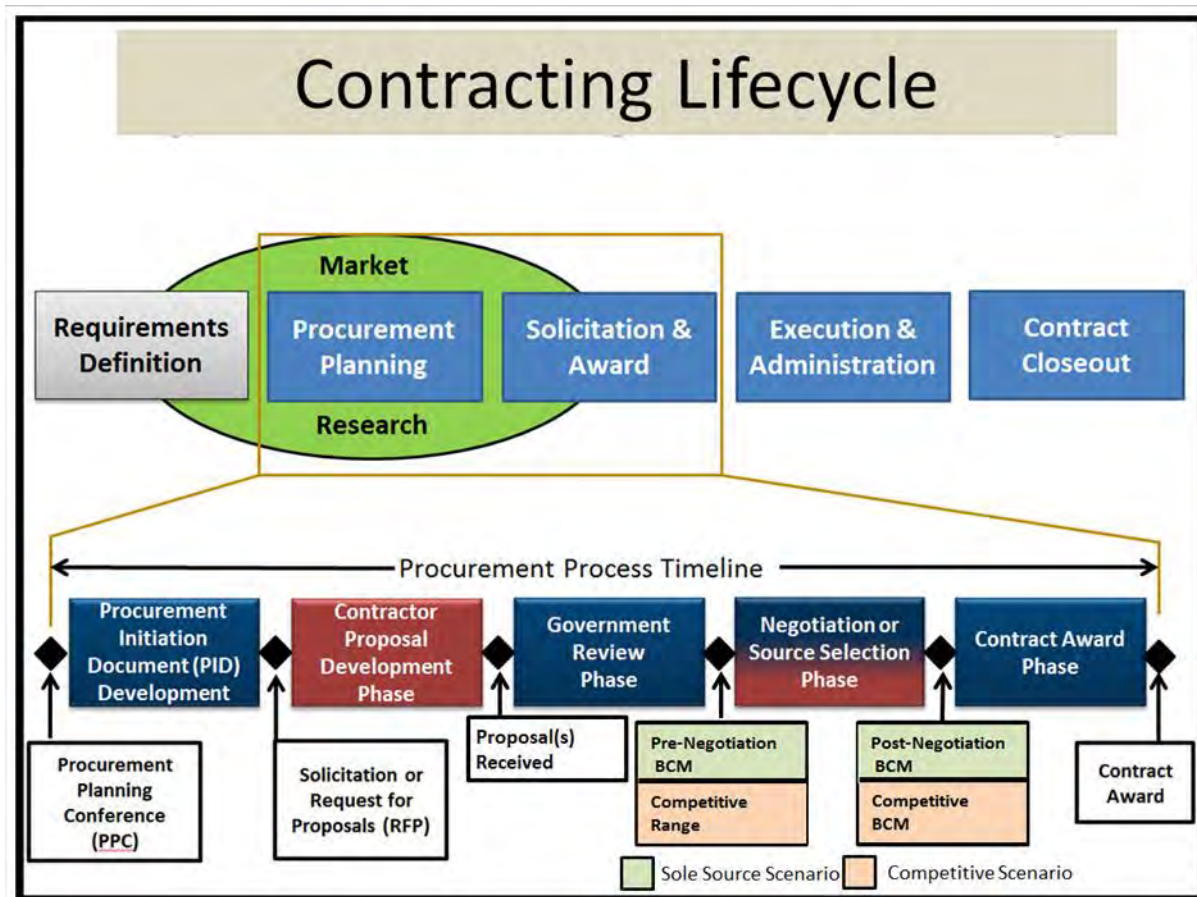


Figure 1 – Contracting Lifecycle

#### 9.1. General Discussion.

9.1.A. As shown in Figure 1, the Procurement Process Timeline begins after the establishment of a valid requirement and concludes when the contract is awarded. The majority of the work of an Integrated Product Team (IPT) is in the Procurement Initiation Document (PID) development phase which begins with the PPC and concludes with the release of a solicitation or Request for Proposal (RFP). The PID package will vary depending on the complexity of the requirement and whether the procurement is using a sole source or competitive contract strategy. Though much of the PID development work is done after the Procurement Planning Conference (PPC), there is important planning and organizing to do prior to the PPC. The procurement process involves documents and forms which are both integral to the PID package directly, (i.e., become part of a solicitation or RFP) and other documents which are part of the internal Naval Air Systems Command (NAVAIR) business procedures.

9.1.B. The procurement requirement may originate from an internal NAVAIR organization such as a Program Office, a Warfare Center, or a Fleet Readiness Center, or it could come from an external source such as the Office of the Chief of Naval Operations, a Unified Combatant Command, or another Service. In any case, the successful execution of a procurement action requires the use of an IPT approach under the Program/Project Manager or their delegated IPT/Project Lead.

9.1.C. To facilitate a successful procurement, the Procurement Lead should have a thorough understanding of the procurement requirement, a working knowledge of the items which are contained in the PID, knowledge of the administrative requirements of the specific procurement effort, and a plan for coordinating the efforts of others to accomplish these tasks. The end result should be a well-organized and sharply focused team using the Procurement.

9.1.D. Procurement Management Tool (PMT) to produce a completed PID package which will be sent to Contracts to produce a solicitation and, ultimately, generate a contract award. The Procurement Lead must ensure the requirement is well defined, an appropriate team is assembled, a thorough PPC is conducted, a schedule of activities is drafted, and the required documentation is then completed to meet the milestones dates as established in the PMT.

9.1.E. For additional policy guidance and the sources to assist with everything required to accomplish this goal, refer to Procurement Initiation under the Business Process tab on the Acquisition Management System (AMS) Knowledge Portal at: <https://myteam.navair.navy.mil/corpapps/ams/home/default.aspx#>.

9.2. POC: Steve Smith, Acquisition Policy & Processes, AIR-1.1, (301) 757-8731

### **9.3 TYPES OF PROCUREMENT INITIATION DOCUMENTS**

| <b><u>Document</u></b>  | <b><u>Purpose</u></b>  |
|---|--|
| Procurement Initiation Document (PID)                           | Provides Contracts information necessary for completing appropriate procurement actions. NAVAIRINST 4200.37C delineates the PID process and responsibilities. The 2015 NAVAIR PID Guide details PID preparation. |
| <b>FUNDING DOCUMENT TYPES OF PIDS</b>                           |  |
| 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 Defense Contract Management Agency (DCMA).                |
| Interdepartmental Purchase Request (IPR)                        | Used to procure services, supplies, etc., from activities outside DoD. Requires approval from the Office of Counsel (AIR-11.0) and Contracts (AIR-2.0).  |
| Military Standard Requisitioning and Issue Procedure (MILSTRIP) | Used to requisition supplies or repair parts - from DLA and Services' stock.   |
| <b>THE FOLLOWING ARE NOT CONSIDERED PIDS</b>                    |  |
| Letter of Intent  | To NWCF activities for procurement purposes when no other document will suffice.   |

## CHAPTER IX: PROCUREMENT PROCESS

### PART B: PROCUREMENT PLANNING CONFERENCE (PPC)

9.4. Per NAVAIRINST 4200.37C, a PPC shall be conducted for all funded procurement efforts above the Simplified Acquisition Threshold which require a NAVAIR PCO signature. During the PPC, the IPT formally plans the strategy for a given procurement. The intent of a timely and effective PPC, and the resulting Procurement Planning Agreement (PPA), if required, is to define the road map of tasks to be performed which ensures the resulting contract award meets the defined requirement and schedule within the identified budget. Therefore, the key goals of a PPC are to ensure the requirement is understood, procurement milestones are established, and responsibilities are assigned and accepted for the procurement.

9.4.A. The PID Administrator will use the PMT to record the PPC results and to generate a PPA. A signed PPA will be generated if a solicitation or RFP is to be released.

9.4.B. Discussion Topics: PPC discussion topics should include all aspects of the procurement. The following list includes standard items that are applicable to all procurements and unique items which may only apply to specific circumstances. An open dialog with IPT members will ensure a complete list is established. A standard checklist of PPC discussion topics is available in the PMT and can be used to produce a PPA. The overall goal of a PPC is to:

- 1) Define if the requirement is for services and/or material/supply which could include the tentative required period of performance or delivery schedule.
- 2) Discuss the proposed contract type, funding, and payment type.
- 3) Clarify the requirement by line item structure and identify issues requiring resolution. Determine a tentative line item structure format for both services and material/supply requirements.

9.4.B.1. Services: Normally Navy Enterprise Resource Planning (ERP) ZSPS PRs have very few services lines per action. One reason for this is that CLINs are dollar driven and are not based on a quantity (unlimited invoices allowed). Another reason is that multiple contract lines for Services having the same line of accounting (LOA) require only a single line within the Navy ERP ZSPS PR.

9.4.B.2. Material/Supply: The material/supply requirement is particularly complex because each line, defined by material number, has to be evaluated to determine if it will or will not be carried as inventory. All material/supply efforts, which include all plant/project stock or asset items, will meet line item detail. For more info see the Technical Procurement Initiator (TPI) Guide located in the Procurement Initiation folder under the Business Process tab on the Acquisition Management System (AMS) Knowledge Portal at: <https://myteam.navair.navy.mil/corpapps/ams/home/default.aspx#>. Discussions on both line item detail and type of material/supply item which start at pre-PPC meetings should ensure decisions can be reached at the PPC.

9.5. Review the results of the market research effort with an Office of Small Business Programs (OSBP) representative to further define the requirement. These results and the defined requirement will help determine how the DD Form 2579, is completed.

9.5.A. Identify required PID Process milestones and associated documents. Assign actions, establish due dates, and record milestone progress review dates in the PMT.

9.5.B. Assign duties and responsibilities for the use of PMT to record, execute, and manage the required procurement actions.

9.5.C. Determine how required documents will be managed and if the PID Collaboration site in PMT will be used. The PID Collaboration site is a workspace where the team working a PID can share information, plan schedules, assign tasks and access the PID document library. Note: Regardless of approach, all tasks and documents should be initiated and completed in accordance with the PPC and PPA approved procurement schedule recorded in the PMT.

9.5.D. Ensure all IPT members are trained in PMT usage, have assigned roles and the necessary access to the PMT PID Record for the procurement effort.

9.5.E. Ensure that the budget has been identified to support the requirement, and that funding matches the intended purpose, time, and amount.

9.5.F. Determine Program Security requirements. The IPT will coordinate with AIR-7.4 to determine whether a DD Form 254 (Contract Security Form) is required for the contract work to be performed or item procured. When required, the PID Originator will prepare a draft DD Form 254 and submit it with the SOW to AIR-7.4 for approval prior to formal routing of the PID.

9.5.G. Address Earned Value Management (EVM), if required. EVM is a disciplined communication method for understanding the cost, schedule, and technical performance, proactively managing future performance, and minimizing the impact of risk on the project. The use of EVM and Technical Performance Measurement Techniques should be coordinated with AIR-4.2. EVM is required on Cost/Incentive-type contracts longer than 12 months and over \$20M. EVM is the responsibility of the Program Manager.

9.5.H. Address Clinger-Cohen Compliance. The Clinger-Cohen Act (CCA) of 1996, requires all DoD programs containing IT systems (including National Security Systems (NSS) to be CCA compliant. Programs that contain IT must have approved CCA documentation to support each milestone or, to support a major contract award. IT must be registered in the DoD IT Portfolio Repository (DITPR-DON) before obligating funds. The PM will report CCA Compliance to the MDA and the Component CIO or designee. For IT programs employing an incremental developmental model, the PM will report CCA compliance at each Limited Deployment Decision Point. See Enclosure 11 of reference (c) for more information.

9.5.I. Determine what documents will be provided to the Comptroller, Contracts, or both. For example, the SOW Section will require a Comptroller review before being provided to Contracts, while the J&A can be provided directly to Contracts.

9.5.J. Determine the type of document that will be used to deliver the initial requirement to Contracts and when it will be provided. For example:

- A funded Navy ERP Standard Procurement System (SPS) Purchase Requisition (PR) record (preferred method) and its Document Management System (DMS) attachments obtained from the PMT PID Record PID Collaboration Site (together they are called the funded PID or funded PID PR) will be used to provide the formal requirements and funding to Contracts.

- A planning (unfunded) PID will be used due to various factors such as:

1. Availability of funds
2. The need to reduce complexity in the funding process used with material efforts so that estimated unit costs are on the planning (unfunded) PID and actual negotiated unit costs are on the funded PID
3. The need to get contracts formally involved in the requirements building process (often used with service contracts)
4. The need to generate the DD Form 2579 or other required documents

Note: Once the fundamental approach of funded PID versus planning (unfunded) PID is determined, decisions should be made at the PPC on when completed documents will be provided to both the Comptroller and Contracts by setting up milestones, tasks, and schedules in the PMT to achieve both a complete and timely contract award.

9.5.K. Determine how completed documents will be workflowed in the draft stages for review and edit to all IPT/Project Members (including both the Comptroller and Contracts). For funded PID actions, the documents required for Comptroller review must be attached via DMS to the funded Navy ERP ZSPS PR. For documents on funded PID actions that are only required by contracts, two options exist. Project members can either use the PMT PID Collaboration Site (preferred method) or send documents via e-mail. When a planning (unfunded) PID action is required, the following options to pass the formal requirement to contracts are: a. the PMT PID Collaboration Site (preferred method); b. an unfunded Navy ERP ZSPS PR action with the attachments available via DMS; or c. e-mail.

9.5.K.1. Using the PMT PID Collaboration Site, both government and contractor personnel can view and edit attached documentation on an as needed basis. The use of a planning (unfunded) Navy ERP ZSPS PR and DMS are restricted to the government. Unlike e-mail, the PMT PID Collaboration site and DMS, within the planning

(unfunded) ZSPS PR, provide a single location for version-controlled documentation, a review/approval workflow process that can include all key IPT/Project Members, and an electronic record that can be used for historical purposes.

9.5.K.2. Further PPC Process Considerations: Other key process concerns are when to have the PPC, who should attend, and what are the expectations of all involved. A pre-PPC may prove beneficial.

1) PPC Participants: When the Procurement Lead convenes a formal PPC meeting, it should be attended by the appropriate IPT competency representatives based on the scope and complexity of the requirement. While it is advisable to tailor PPC attendance to the procurement effort, PPCs normally involve participation by the following members:

- PM/Deputy PM/Procurement Lead
- Acquisition/Operations/PID/Requirements Manager
- BFM
- Comptroller (advisory member)
- Assistant Program Manager for Logistics
- Assistant Program Manager for Systems and Engineering
- Assistant Program Manager for Test and Evaluation
- PCO/Contract Specialist
- Configuration Manager
- Data Manager
- GFE/GFM Manager
- Security Representative
- Office of Counsel (advisory member)
- OSBP (advisory member)
- Market Research (team member)

2) PPC Expectations: It is vital that PPC members, as representatives of their respective competencies or departments, be knowledgeable of the practices and policies of that organization. The Procurement Lead should:

- Expect that PPC members are skilled in their specific areas and are empowered to contribute to a quality product;
- Request upper level competency representation at PPCs, if deemed necessary;
- Expect schedule adherence by the competency representatives to milestone requirements mutually agreed upon by PPC participants, unless modified by programmatic events and/or overriding requirements;
- Take the initiative to invite procurement process experts to the PPC in order to acquaint the procurement team with issues and/or lessons learned on current processes. For example, representatives from the Source Selection Office (AIR-4.0E) should be contacted if a competitive procurement is planned. The PMA-205 program office should be consulted to explore personnel and training system implications of the planned procurement action.

9.5.K.3. To facilitate discussions, the PPC participants should have relevant program documentation and information available prior to the PPC to become acquainted with key programmatic requirements and concerns. Exceptions are routine option exercises or incremental funding actions where a smaller meeting, phone call, or e-mail exchange will suffice. See AIR-2.0 website: <https://contracts.navair.navy.mil/>, Appendix 2.4B of the Contract Specialist Handbook, Procurement Planning Conference.

9.6. POC: Steve Smith, Acquisition Policy & Processes, AIR-1.1, (301) 757-8731

## CHAPTER IX: PROCUREMENT PROCESS

### PART C: DATA MANAGEMENT

9.7. Purpose. Data Management is the process of applying policies, systems, procedures and tools for the identification and control of data requirements, for assuring the adequacy of data and for facilitating the timely, economical acquisition and availability of data including digital delivery or access. To ensure only minimum essential data is acquired, the data requirements shall be clear, concise, justified, and in accordance with the Statement of Work (SOW). Planning for the acquisition of data is required by the Federal Acquisition Regulation and the Defense Federal Acquisition Regulation Supplement (DFARS) in order for the Department of Defense to carry out missions and programs. Data is required by the Program Manager (PM) and the acquisition team to assure competition among contractor sources; fulfill certain responsibilities for disseminating and publishing the results of acquisition activities; ensure appropriate utilization of the results of research, development, and demonstration activities including the dissemination of technical information to foster subsequent technological development; and meet other programmatic and statutory requirements.

9.8. Source Documentation:

DFARS

DoDI 5000.02, Operation of the Defense Acquisition System

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

Streamlining and Standardization Information System (ASSIST): <http://assist.daps.dla.mil/online/start/>

SECNAVINST 5000.2E, Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System

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

NAVAIRINST 4200.21E, Data Requirements Review Board (DRRB)

NAVSEA Data Management Program Operations and Procedures Manual (Rev2) 1 June 2009

Acquisition Management System at <https://myteam2.navair.navy.mil/corpapps/ams/home/default.aspx>

MIL-HDBK 245D Department of Defense Handbook for Preparation of Statement of Work (SOW)

9.9. Responsibilities

9.9.A. PMs are responsible for ensuring their data requirements comply with the policy and procedures set forth in DFARS, DoDI 5000.02, DoD 5010.12-M, and NAVAIRINST 4200.21E.

9.9.B. AIR-1.1 is responsible for providing policy and guidance governing the acquisition and management of data, including the processing of all repetitive Data Item Descriptions (DIDs) and approving all One-Time DIDs.

9.9.C. AIR-1.1 will provide advisory support and assistance to the PMAs as required to establish a formal Data Requirements Review Board (DRRB), and ensure data management policy and procedural changes are communicated to the PMAs. When requested by the PM, AIR-1.1 shall provide assistance in developing standard operating procedures, IAW NAVAIRINST 4200.21E.

9.10. Lessons Learned. 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 (ICD) or Capability Development Document (CDD). 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 (PID) can be reduced.

9.11. For additional information on Data Management and One-Time DIDs approval process, visit the Acquisition Management System at <https://myteam2.navair.navy.mil/corpapps/ams/home/default.aspx>.

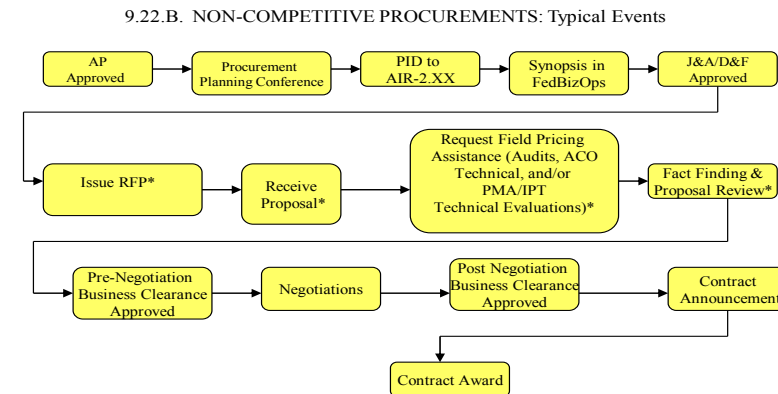
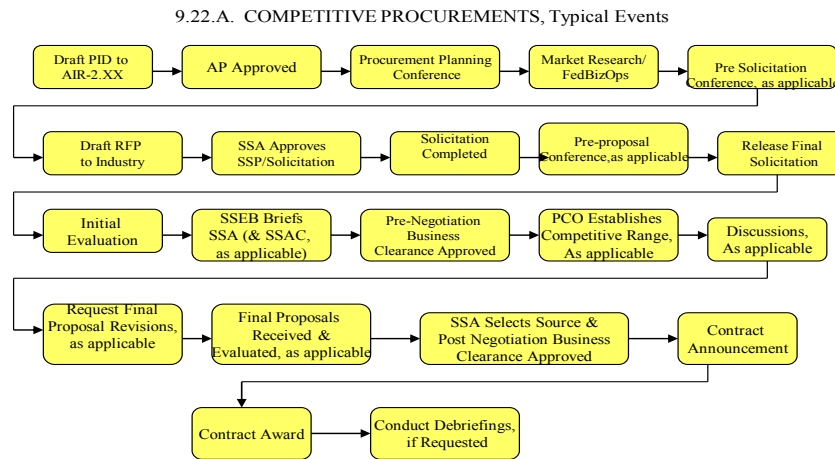
9.12. POC: Chirleen Eaton, AD-1.1.3, (301) 757-6677



## CHAPTER IX: PROCUREMENT PROCESS

### PART D: PROCURING ACTIVITY TO CONTRACT AWARD

#### 9.13. Flow Process. FOR MAJOR DOLLAR VALUE CONTRACTS OF \$50M OR GREATER



\* Refer to Chapter XV, Part A, of this guide for information regarding the use of teaming for proposal review/analysis.

9.14. 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. For non-competitive procurements, 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.

#### 9.15. Source Documents:

Federal Acquisition Regulation (FAR)  
 Defense FAR Supplement (DFARS)  
 Navy Marine Corps Acquisition Regulation Supplement (NMCARS)  
 Various NAVAIR instructions regarding procurement of supplies and services

9.16. 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:

9.16.A. Ensure sufficient funds are available for obligation;

9.16.B. Ensure contractors receive fair and equitable treatment;

9.16.C. Request and consider the advice of specialists in audit, law, engineering, transportation, and other fields as appropriate; and

9.16.D. Document that the proposed contract is in the best interest of the Government.

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

9.17.A. The Acquisition Plan (when required: with a development contract worth more than \$10M, or a production or service contract worth more than \$50M (including all options) or more than \$25M in any one fiscal year (see Chapter VIII Part B)) must be approved prior to synopsis;

9.17.B. The results of the synopsis should be known before J&A approval;

9.17.C. The J&A (if applicable) must be approved prior to release of the request for proposal (RFP);

9.17. D. Sec. 818, FY07 National Defense Authorization Act (NDAA) introduced new requirements for selecting contract type, implemented in DFARS 235 and DFARS 234:

9.17.D.1. For major defense acquisition programs as defined in 10 U.S.C. 2430, per DFARS 235.006(b)(i) and DFARS 234.004(2), the contract type for a major defense acquisition development program (i.e., ACAT I) must be selected by the Milestone Decision Authority (MDA), with the advice of the contracting officer, at the time of Milestone B approval. The basis for the contract type selection shall be documented in the acquisition strategy. In accordance with DoD Class Deviation 2013-00009, contracting officers shall not use cost-type contracts for the acquisition of major defense acquisition programs, unless the following is submitted to the congressional defense committees: 1) a written certification that the particular cost-type contract is needed to provide a required capability in a timely and cost-effective manner; and 2) an explanation of the steps taken to ensure the use of cost-type pricing is limited to only those line items or portions of the contract where such pricing is needed to achieve the purposes of the exception.

9.17.D.2. For other than major defense acquisition programs, per DFARS 235.006 (b)(ii)(A)(3)(ii), a written determination is reviewed and approved by USD (AT&L) is required for contracts over \$25M for research and development for a non-major system; the development of a major system (as defined in FAR 2.101); or the development of a subsystem of a major system; or by the contracting officer for any contracts at or below \$25M. In addition, obtain USD (AT&L) approval of the Government's pre-negotiation position before negotiations begin, and approval of the negotiated agreement with the contractor before the agreement is executed, for any action that is: 1) an increase of more than \$250M in the price or ceiling price of a fixed-price type development contract, 2) a reduction in the amount of work under a fixed-price type development contract when the value of the work deleted is \$100M or more, or 3) a repricing of fixed-price type production options to a development contract which increases the price or ceiling price by more than \$250M for equivalent quantities;

9.17.E. 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);

9.17.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;

9.17.G. Notification to Congress is required prior to any contract award greater than \$6.5M; and

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

#### 9.18. Lessons Learned

9.18.A. THINK COMPETITION!!! (See Chapter XII, 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 NAVSUP WSS and AIR-6.0 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.

9.18.B. In compliance with NAVAIR 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.

9.18.C. Keep the contracting officer informed of changes in quantity or requirements. Try to structure quantity options for both the current fiscal year and future fiscal years whenever feasible.

9.18.D. Use the influence of the contracting officer 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.

9.18.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.

9.18.F. Past performance/systemic improvement is now evaluated in virtually all competitive contracts, providing an opportunity to focus on specific performance criteria deemed important in selection of a contractor.

9.18.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. Note that authorization or notification to Congress is required for use of multiyear contracts. Refer to DFARS 217.1, Multiyear Contracting, for specific requirements.

9.18.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.

9.18.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 discuss with the contracting officer the potential use of teaming.

9.19. POC: Contact the cognizant program contracting officer or, Contract Policy Management Division, AIR-2.1.1, (301) 757-8953.

## **CHAPTER X: MANAGING PROGRAM MODIFICATIONS**

### 10.1. Source Document:

SECNAVINST 5000.2E, Chapter 1, Paragraph 1.5.5 and Table E1T2

### 10.2. Discussion

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

10.2.B. Historically, modifications that, due to their cost and complexity, meet the ACAT I designation qualifications have been managed as separate ACAT I programs. 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 and test criteria for being classified as an Abbreviated Acquisition Program (see Chapter VII, 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.

10.2.C. A modification can result in revisions to the modified program's milestone information and affected documentation (e.g., Acquisition Baseline Agreement, Acquisition Strategy, Test and Evaluation Master Plan) that will need to be approved by the MDA and other required signatories.

### 10.3 POC: Lola Scott, AIR-1.1, (301) 757-7228

**Table E1T2 Modification Initiation Process Conditions**

**(The answers to the questions in columns 1 through 4 will determine the row that most closely relates to your ongoing program characteristics and proposed modification)**

| Pgm being modified is an active ACAT? | Mod breaches APB threshold? | Mod requires additional funding? <sup>7/</sup> | Mod cost exceeds "Abbreviated Acqn Program" \$criteria <sup>4,5/</sup> | PM action  | CNO/CMC action <sup>6/</sup>  | Program Decision Authority or MDA action   |
|---------------------------------------|-----------------------------|--|--|--|---|--|
| YES                                   | NO                          | NO   | YES <sup>5/</sup> or NO  | Execute mod  | Approve/validate CDD/CPD <sup>2,5/</sup>  | None   |
| YES                                   | NO                          | YES  | YES <sup>5/</sup> or NO  | Prepare funding request<br>Execute mod   | Approve/validate CDD/CPD <sup>2,5/</sup><br>or<br>requirement<br>Provide funding  | None   |
| YES                                   | YES                         | NO   | YES <sup>5/</sup> or NO  | Revise APB <sup>1/</sup><br>Revise Test and Evaluation Master Plan <sup>2/</sup><br>Execute mod  | Approve/validate CDD/CPD <sup>2,5/</sup><br>or<br>requirement<br>Endorse APB <sup>1/</sup><br>Endorse TEMP <sup>2/</sup>                    | Approve APB <sup>1/</sup><br>Approve TEMP <sup>2/</sup>  |
| YES                                   | YES                         | YES  | YES <sup>5/</sup> or NO  | Prepare funding request<br><br>Revise APB <sup>1/</sup><br>Revise TEMP <sup>2/</sup><br>Execute mod  | Approve/validate CDD/CPD <sup>2,5/</sup><br>or<br>requirement<br>Provide funding<br>Endorse APB <sup>1/</sup><br>Endorse TEMP <sup>2/</sup> | Approve APB <sup>1/</sup><br>Approve TEMP <sup>2/</sup>  |
| NO                                    | N/A                         | NO   | NO   | Prepare/submit AAP designation request to approval authority<br>Execute mod  | Approve requirement   | Approve AAP designation request  |
| NO                                    | N/A                         | YES  | NO   | Prepare/submit AAP designation request to approval authority<br>Prepare funding request<br>Execute mod   | Approve requirement<br>Provide funding  | Approve AAP designation request  |
| NO                                    | N/A                         | YES  | YES  | Prepare funding request<br><br>Prepare APB <sup>1/</sup><br>Prepare TEMP <sup>2/</sup><br>Prepare ACAT <sup>3/</sup><br>desig request<br>Execute mod | Approve/validate CDD/CPD <sup>2/</sup><br>Provide funding<br>Endorse APB <sup>1/</sup><br>Endorse TEMP <sup>2/</sup>                        | Approve APB <sup>1/</sup><br>Approve TEMP <sup>2/</sup><br>Approve ACAT <sup>3/</sup><br>designation request |

1/ "Prepare APB" is for the "modification only" if the modification is to be managed as a separate program. "Revise APB" is for the original ongoing program. See APB format in Defense Acquisition Management Information Retrieval (DAMIR) section of the Defense Acquisition Guidebook.

2/ If a new, or change to an existing, CDD/CPD or TEMP is required, see formats for CDD/CPD and TEMP in reference (c) and Defense Acquisition Guidebook, 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 the SECNAV M-5000.2 DON Acquisition and Capabilities Guidebook.

4/ \$ criteria for "Abbreviated Acquisition Programs" is less than: for weapon system programs, \$10M total development expenditure, \$25M production or services expenditure in any fiscal year,

and \$50M total production or services expenditure for all fiscal years; for IT programs, \$15M program costs in any single year and \$30M total program costs.

5/ If answer to column 4 is YES, an approved CDD/CPD or CDD/CPD revision is required.

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

7/ For modifications that require additional funding, see ASN(RD&A) memorandum, Acquisition Program Cost Management of 21 May 2010.

## CHAPTER XI: CONFIGURATION MANAGEMENT (CM)

### PART A: CONFIGURATION MANAGEMENT POLICY AND PROCEDURES

11.1. Purpose. CM is a cross-functional/cross-boundary business process that, if done correctly and within the constraints of DoD accepted CM Standards and NAVAIR's CM/CCB/ECP instruction NAVAIRINST 4130.1 (Series), enables all stakeholders in the Engineering Change Process (ECP) at NAVAIR to do their jobs effectively and efficiently. CM is both a beneficial and necessary set of processes that enables NAVAIR to achieve its goals on budget and on schedule. CM is a program management discipline comprised of the combined and systematic application of the following five elements: 1) **Planning and Management**; 2) **Configuration Identification**; 3) **Configuration Change Management**; and 4) **Configuration Status Accounting** and 5) **Configuration Verification and Audits**. CM Planning and Management provides the plan to manage the CM process for the context and environment in which CM is to be performed and to provide for monitoring and improving the CM processes. CM planning and management, over the product life cycle, results in defined and effective CM elements. 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 catastrophic consequences such as failure of equipment and/or loss of human life.**

#### 11.2. Source Documentation and Guidance:

DoD Instruction 5000.02, 7 Jan 15

ANSI/EIA-649B, "Configuration Management Standard," Apr 11

EIA-649-1, "Configuration Management Requirements for Defense Contracts" 20 Nov 14

GEIA-HB-649 "Implementation Guide for Configuration Management" 1 Oct 05

MIL-HDBK-61A, "Configuration Management Guidance," 7 Feb 01

ANSI/EIA-836 "Configuration Management Data Exchange and Interoperability," Jun 02

NAVAIRINST 4130.1D, "NAVAIR Configuration Management Manual," 19 Dec 06

Electronic versions of updated DD Forms and Instructions for ECP's, RFV's, NOR's, SCN's and ERR's are available online at <http://www.dtic.mil/whs/directives/forms/index.htm>.

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

11.4. 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 (CCBs) provide the critical foundation for a long and successful CM program. The cognizant OPR/IPT must work closely with the Program Management Configuration/Data Management Policy & Processes Division (AIR-1.1.3), Acquisition Policy and Processes Department (AIR-1.1), and the OPR/PMA's assigned Configuration Manager to ensure applicable CM Plans and associated contract requirements are adequate.

11.5. Critical Elements. In **Configuration Planning and Management** most configuration changes occur in a sole source environment, the initiation of an Engineering Change Proposals (ECP) should be a well-planned and

coordinated effort between the government and contractor. A clear mutual understanding of the ECP objective, technical scope and the Government's performance, cost and schedule constraints shortens the lead-time for ECP preparation. It also results in a complete and comprehensive proposal to facilitate timely and effective implementation. As with most processes, the three C's: Communication, Cooperation and Coordination are the keys to assuring successful change processing. A Configuration Management Plan CMP includes:

- application of the appropriate level of CM functions throughout the product life cycle;
- assignment of CM functional responsibilities to various organizational elements;
- training of CM personnel and any others who have CM responsibilities;
- determination and application of adequate resources (including CM software tools) and facilities for product implementation;
- measurements as an indicator of performance and a basis for continuous improvement;
- performance of Configuration Management by suppliers and subcontractors;
- integration of the organization's product configuration information processes;
- protection of the intellectual capital of the organization;
- assessment of the suppliers and subcontractors CM processes; and
- much more.

**Configuration Identification** consists of (1) the systematic process of selecting the product attributes, organizing associated information about the attributes, and stating the attributes; (2) unique identifiers for a product and its configuration documents; and (3) configuration management activity that encompasses selecting configuration documents; assigning and applying unique identifiers to a product, its components, and associated documents; and maintaining document revision relationships to product configurations.

**Configuration Change Management** is used to (1) ensure that changes to released configuration documentation are properly identified, documented, evaluated for impact, approved by an appropriate level of authority, incorporated, and verified; and (2) configuration management activity concerning: the systematic proposal, justification, evaluation, coordination, and disposition of proposed changes; and the implementation of all approved and released changes into (a) the applicable configurations of a product, (b) associated product information, and (c) supporting and interfacing products and their associated product information Configuration control is accomplished primarily through the use of ECP approved by a CCB.

**Configuration Verification and Audits** Functional Configuration Audit/Physical Configuration Audit (FCA/PCA) and CM Assessments (CMAs) are used to verify that the suppliers/subcontractor suppliers CM processes meet current CM policy and standards and that the projects system/product has achieved its required attributes (performance requirements and functional constraints) and the product's design is accurately documented and will satisfy life cycle requirements. Supplier audit and assessment and the product configuration verification is accomplished by inspecting documents, products and records; and reviewing procedures, processes, and systems of operation to verify that the supplier/subcontractor supplier has CM processes in place and functionally adequate to meet the needs of the project and that the projects system/product has achieved its required attributes (performance requirements and functional constraints) and the product's design is accurately documented. CM Audits can sometimes be divided into separate incremental or baseline establishing functional and physical configuration audits while CM Assessments are standalone evolutions.

**Configuration Status Accounting (CSA)** is the configuration management activity concerning capture and storage of, and access to, configuration information needed to manage products and product information effectively and is used to record the implementation of approved configuration changes to a material item and its approved documentation. All five of these CM elements are critical to establishing a successful CM Program. The overall success of a CM program is dependent upon initial Office of Primary Responsibility (OPR)/IPT planning and contractual application, especially the development and implementation of a Configuration Management Plan (CMP) and a CM Statement of Work (SOW) which mandates CM processes and policy that fits the needs of the specific OPR/PMA project. 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 Specification Change Notices (SCN's) and Requests for Variations (RFVs). (See ANSI/EIA-649B, EIA-649-1, and MIL-HDBK-61A).



11.6. 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, PMs are agreeing to comply with the current CM policy and procedures of NAVAIRINST 4130.1 (Series).

11.7. Configuration Steering Boards. ASN (RD&A) memo "Configuration Steering Boards" dated 7 May 2008, directs that the DON forum for CSBs will be Gate 6 Sufficiency Reviews and not Requirements Resources Review Boards (R3Bs). Appropriate OSD and Joint Staff personnel shall be invited to the Gate reviews. Each Gate 6 Review/CSB must satisfy criteria specified in the original CSB memo dated 30 July 2007 in order to successfully complete the review.

#### 11.8. Lessons Learned

11.8.A. 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.

11.8.B. 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).

11.8.C. 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.

11.8.D. Flight Clearances (FCs) do not and cannot 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 these additional costs at the expense of the entire NFHP program. During ECP staffing, cognizant Logistics Managers must identify and coordinate any real or potential NFHP cost impact with OPNAV (N98).

11.8.E. Acquisition programs and projects have historically not conducted CM Audits or Assessments in a consistent manner to establish that the suppliers being utilized to produce or modify systems for NAVAIR has an established and functioning CM Process that meets the needs of the OPR/PMA project requirements and fits into current DoD directed CM policy and Standards. CM Audits and Assessments should be a constant authoritative review of all project suppliers as early as possible in the projects life cycle to mitigate the overarching risk of not conducting CM processes within the constraints of current CM policy and Standards.

11.9. POC: Daniel K. Christensen, Division Head, Program Management, Configuration/Data Management Policy and Process Division, AIR-1.1.3, (301) 757-8065

## CHAPTER XI: CONFIGURATION MANAGEMENT

### PART B: ENTERPRISE CHANGE MANAGEMENT (ECM) PROCESS

11.10. Purpose. Enterprise Change Management (ECM) process is to document any alteration to a product or its released configuration documentation. Effecting Major (Class I) changes may involve modification of the product, product information and associated interfacing products and are generally requested from Original Equipment Manufacturers, Fleet Readiness Centers (FRCs), or any other Government or commercial source for incorporating design changes into material items. Major (Class I) changes include Engineering Change Proposals (ECPs), Request for Variations (RFVs), Specification Change Notices (SCNs), Rapid Action Minor Engineering Changes (RAMECs), Pre baseline PBL Engineering Changes, 2 part ECP Processes, LECP's etc., fall under the purview of the Engineering Change Management (ECM) process at NAVAIR and are all controlled by NAVAIRINST 4130.1 (Series) and its enclosures.

#### 11.11. Source Documentation/Guidance:

DoD Instruction 5000.02, 7 Jan 15

ANSI/EIA-649B, "Configuration Management Standard," Apr 11

EIA-649-1, "Configuration Management Requirements for Defense Contracts" 20 Nov 14

GEIA-HB-649 "Implementation Guide for Configuration Management" 1 Oct 05

MIL-HDBK-61A, "Configuration Management Guidance," 7 Feb 01

ANSI/EIA-836 "Configuration Management Data Exchange and Interoperability," Jun 02

NAVAIRINST 4130.1D, "NAVAIR Configuration Management Manual," 19 Dec 06

Electronic versions of updated DD 1692 Forms and Instructions for ECP's are available online at

<http://www.dtic.mil/whs/directives/forms/index.htm>.

11.12. 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, cognizant field activities, logistics managers, program management personnel and all applicable stakeholders to the project which is defined in NAVAIRINST 4130.1 (Series) 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 Procuring Contracting Officer (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 NAVAIRINST 4130.1 (Series) and its enclosures to properly adjudicate and process Engineering Change Proposals is a requirement contained in NAVAIRINST 4130.1 (Series). This ECP management process was initially created by NAVAIRSYCOM and subsequently adopted for use by OSD and Industry.

#### 11.13. Lessons Learned

11.13.A. NAVAIR typically processes between 900-1,300 Class I ECPs, Requests for Variances, Specification Change Notices (SCN's), and Rapid Action Minor Engineering Changes (RAMECs) per year.

11.13.B. The time frame for processing varies greatly from urgent safety related ECPs to routine ECPs/VECPs. Most ECPs require 60 to 90 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, PMA205 (Training/Trainer change incorporation responsibility) Contracts, and other Government/commercial resources (stakeholders) 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 ECPs, 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-61A, 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 cannot be overstated.

11.13.C. 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 the change.

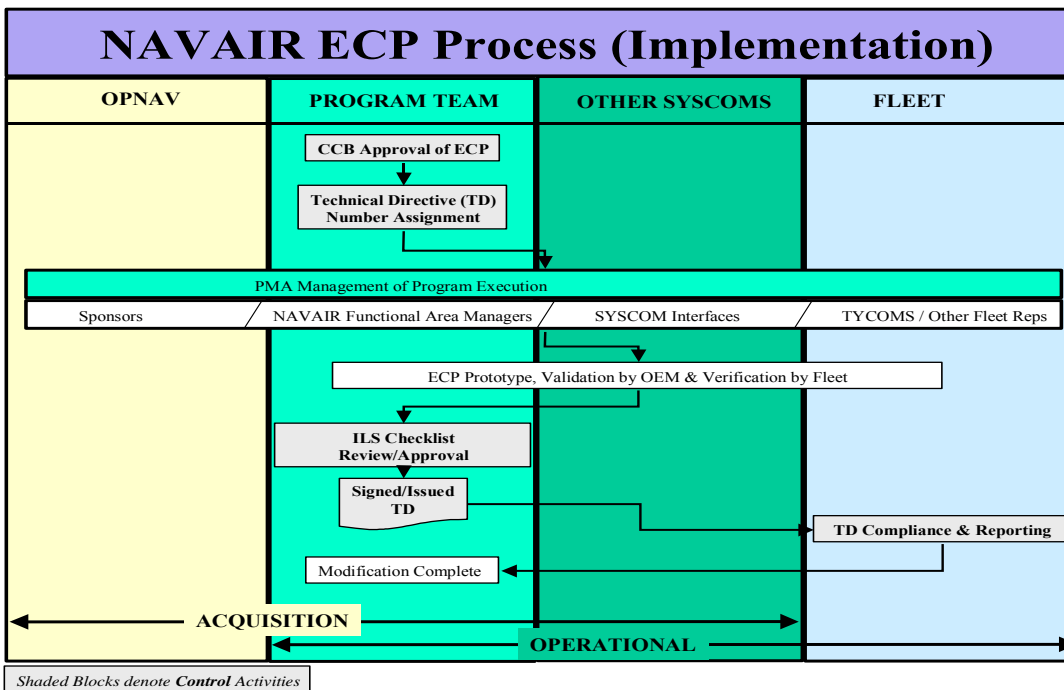
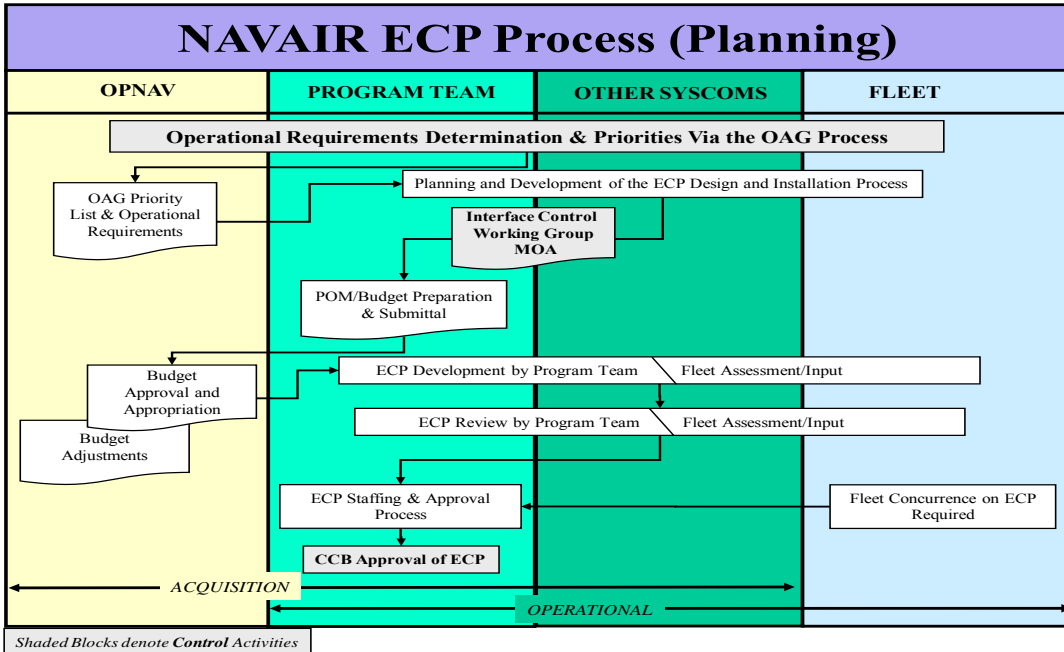
11.14. “**Two-Part ECP Process**” has been introduced to reduce the average ECP/modification cycle-time from initial funding to the last modification installation without sacrificing CM process integrity and discipline. The Two Part ECP process allows PMs to obligate funding for specific non-recurring (NR) services and/or deliverables prior to the actual receipt and approval of a Major (Class I) ECP. Prior to implementation of this process, a complete formal ECP was required to be submitted and approved prior to the release and obligation of any funding. The Two-Part ECP process will yield benefits to both government and industry by permitting shorter cycle times through earlier contractual commitment. Early NR activity will also lead to a higher quality formal ECP resulting in fewer changes and quicker processing.

11.15. “**Pre-PBL (Product Baseline) Aviation Weapon Systems Process**”

Configuration items used in supporting fielded aviation weapon systems prior to pre-production baseline requires authorization from the NAVAIR Configuration Control Board (CCB) prior to modifying more than one such configuration item. The purpose of this effort is to track and manage major changes incorporated into pre-production baseline systems. Changes that occur on Pre-PCA (product baseline established) systems are documented via a letter from the Contractor to the Program Office then utilizing the NAVAIR Configuration Control Board process through the NAVAIR e.Power Workflow system to assign a Technical Directive number. This will allow a Contractor Field Mod team to incorporate necessary modifications to fielded aviation weapon systems during any convenient down time as agreed with the cognizant operational organization.

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

11.17. POC: Daniel K. Christensen, Division Head, Program Management, Configuration/Data Management Policy and Processes Division AIR-1.1.3, (301) 757-8065



## CHAPTER XII: COMPETITION & SOURCE SELECTION

### PART A: COMPETITION

12.1. Purpose. Competition is an issue that must be addressed at several points in a program or system's acquisition. Competition can be a powerful and beneficial method of contracting. Conversely, the reasons for not using competition can take time to be approved, and consequently can hold up approval of a program's overall acquisition strategy and of the Acquisition Plan document.

12.2. 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. NAVAIR Instruction 4200.39C is the governing instruction for all NAVAIR led best value negotiated, competitive acquisitions under Federal Acquisition Regulation (FAR) Part 15.

#### 12.3. Discussion

12.3.A. In the life cycle of a system acquisition, there are three basic types of competition – technical/design competition, production competition, and Maintenance & Logistics type competitions. Technical/design competition occurs early in the acquisition life cycle (during concept refinement, technology development, and/or early stages of engineering and manufacturing development (EMD)). The objective of concept refinement and technology maturation and risk reduction (TMRR) activities in the Defense acquisition life cycle and, therefore the purpose of design competition, is risk reduction, which can be achieved by selecting the one or more concepts or system(s) 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. A preferred evaluation strategy is to award the TMRR phase contract to more than one offeror. Then, conduct a limited competition down-select to one contractor at the end of the TMRR phase to execute the EMD phase contract. Production competition, if it occurs, 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. Maintenance and Logistics type competitions will be most likely conducted several years after production begins and the Maintenance approach is well established. The ability to compete Depot Level Maintenance depends on the extent to which the Government has data rights and the ability of contractors other than the Original Equipment Manufacturer (OEM) to make engineering dispositions.

12.3.B. Whereas technical/design competition is relatively short-lived, production competition may be beneficial throughout the production and maintenance phases. Production competition frequently requires competitors to build the same system and to share data and know-how through licensing agreements or other means. This often results in contractors teaming with one another, enhancing the maintenance capabilities of competing entities.

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

- ◆ Funding
- ◆ Market Research
- ◆ Acquisition Strategy
  - Sole source
  - set aside
  - full and open competition
  - small business participation
- ◆ Milestone Decision Status
- ◆ Contract Type/ Duration
- ◆ Schedule
- ◆ Requirements

- Technical
- Services
- Security
- Environmental
- Logistical
- ◆ Configuration management
- ◆ Technology transfer
- ◆ Non-Developmental/Commercial Items
- ◆ Contractual arrangements
- ◆ Second source qualifications
- ◆ Conversion from CFE to GFE

12.3.D. 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
- ◆ 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 item (NDI) products

12.4. Source Documents: Several detailed references on competition exist, including the Federal Acquisition Regulation (FAR) Part 15, the Defense FAR Supplement (DFARS) Part 215, the Navy/Marine Corps Acquisition Regulation Supplement (NMCARS) Part 5215, DoD Directive 5000.1, DoDINST 5000.02 DoD Policy Memorandum Subject: Department of Defense Source Selection Procedures dated Mar 4, 2011, NAVAIRINST 4200.39C, and various implementing Navy and NAVAIR instructions, including SECNAVINST 5000.2E. See also the Navair Acquisition Management System Knowledge Management Portal, <https://myteam.navair.navy.mil/corpapps/ams/home/default.aspx> for more information.

12.5. Summary. Competition offers substantial benefits but must be carefully managed to obtain all objectives on schedule. Competition planning must be an integral part of the overall acquisition strategy. It must be deliberate and thorough as well as tailored to the specific characteristics of each program.

12.6. POC: Source Selection Process, Alan Goldberg, AIR-4. 0E, (301) 757-1810  
Competition in contracting, AIR-2.1.1, (301) 757-8953

## CHAPTER XII: COMPETITION & SOURCE SELECTION

### PART B: SOURCE SELECTION PLANNING

12.7. Purpose. To provide insight into source selection planning considerations.

12.8. Discussion

12.8.A. Every source selection begins with a basic planning stage as an outgrowth of an Acquisition Strategy that must be approved and followed. Initially, a requirement must be identified and funding must be obtained. Requirements may include aircraft, missiles, training systems, components, software, technology advancement projects, maintenance and logistics, management training services, 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. In addition, key personnel need to be identified. A myriad of documentation that justifies and plans the acquisition must also be developed and approved. Market Research must be conducted to identify industry sources that should then be polled for input into both the feasibility of the requirement and the strategy for fulfilling the requirement. A draft specification, Statement of Objective/Statement of Work (SOO/SOW) or Performance Work Statement (PWS), and eventually the entire Request for Proposal (RFP) should be sent to Industry for comment. The Draft RFP may be sent to Industry without its Sections L&M, but eventually a draft of Sections L&M should also be sent to Industry for comment. Allowing this opportunity for communication with Industry is an important part of finalizing a high quality RFP and it is an important early insight for Industry to help them put together a high quality proposal. These are two critical elements that will affect how difficult the evaluation of proposals will be; therefore it is important that sending a Draft RFP to Industry for comment is included in the program/source selection schedule. Ultimately the 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 to complete these source selection efforts on schedule. Essential Source Selection training is available on the Naval Air Systems Command University (NAVAIRU) Web Site <https://navairu.navair.navy.mil/>. The NAVAIRU catalog contains the available Computer-Based Source Selection training modules and the courses are located in the School of Source Selection under the College of Research and Engineering (CORE). The link may also be obtained through Source Selection and Contracts POCs listed in these chapters.

12.8.B. 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 factors 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 SOW/SOO or PWS, 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.

12.8.C. Development of the Evaluation Criteria (Section M) and the Proposal Instructions (Section L) can be initiated once the requirements are fairly stable. RFP Sections L&M are critical documents that set the path towards an unambiguous, fair, and trouble free selection. Section M identifies what will be evaluated. Section M, Evaluation Factors for Award is commonly referred to as the Evaluation Criteria. Section L instructs what the Offerors is to provide in the proposal in response to the RFP, as well as where and how to provide it. The documents must be developed such that there is a clear path from the Evaluation Criteria Factors, subfactors and lower level criteria (i.e. areas to be evaluated) to the Proposal Instruction Volumes, Books and paragraphs and then into the Evaluation (i.e. areas which will be assigned worksheets where Subject Matter Expert evaluators document their evaluation of that area). Sections L&M should be developed by a team of program experts and stakeholders. The preferred approach for initiating and developing Sections L&M is as followed.

- 1) Set up a meeting (probably 2 days) with a working group of program experts and stakeholders. Preparation for the meeting should include a review of the Acquisition Strategy, CDD, SOO/SOW

or PWS, Specification, other requirements, Work Breakdown Structure (if applicable), and Section B (CLINs).

- 2) The following actions should occur at this meeting:
  - a) Start with training on how to develop Section L and M and review definitions of Source Selection terminology. An L&M Development training module is available through the NAVAIRU website mentioned above.
  - b) Conduct a brainstorming session to identify the key evaluation discriminators.
  - c) Organize the discriminators into Factors, Sub-Factors, Elements and Sub-Elements (as needed).
  - d) Draft Section M based on the results of the meeting, using the Section M Clause Book Template as a guide or AIR-4.0E Source Selection Office provided examples. Templates can be found on the NAVAIR AIR-2.0 website (<https://contracts.navair.navy.mil/index.cfm>)
  - e) Develop a Section L outline based on the Drafted Section M.
  - f) Assign actions to complete Section L. Preferably the Team Leaders have been assigned and can be tasked to lead the development of their Volume.
- 3) In developing Section L, use the Section L Clause Book or AIR-4.0E Source Selection Office provided examples as a guide. Leverage "re-use" language from other RFPs as a starting point. The General Section, the Past Performance Volume and the Experience Volume will not require too much change. The Technical Volume Instructions will require most of the work. The Cost/Price Volume will also require some level of work, but much of the language and format can be leveraged from RFPs of similar programs. Templates can be found on the NAVAIR AIR-2.0 website (<https://contracts.navair.navy.mil/index.cfm>).
- 4) Develop a Cross Reference Matrix (CRM) that relates each Section L, Part B, specific proposal instruction to the various program requirements and specifications (document name, paragraph, DOORS entry, etc.). This CRM becomes part of Section L, but should also be used as a tool to identify disconnects between the Proposal Instructions and the requirements. The CRM will also be used to help identify evaluator assignments, generate evaluation worksheets and guide evaluators during the evaluation.
- 5) In general, the Source Selection Evaluation Board (SSEB) and other key program members should meet on a weekly basis from this point on in order to manage the process.
- 6) After Sections L&M are complete, the PCO can assemble the entire RFP and submit it to the SSEB for review. This review should be an integrated review of the entire RFP to ensure accuracy, consistency, clarity and cohesiveness. Unclear requirements or disconnects between any parts of the RFP can result in flawed proposals that will affect our ability to select the true best value, raise the risk of protest and/or result in unexpected adverse results during contract performance. The team should meet to resolve all comments and to finalize the RFP. The RFP is then ready to be submitted to the Legal Review Board (LRB), if required. (The program's Legal Counsel can advise if an LRB is required.)
- 7) After the SSEB incorporates the LRB's comments, the RFP is ready for review by the Source Selection Advisory Council (SSAC) and/or the Source Selection Authority (SSA). If a draft RFP with Sections L&M is to be released, then concurrence from the SSAC Chair with his/her consultation with the SSAC members or concurrence from the SSA is required in addition to Legal review. Typically, the order of importance of factors and subfactors are not disclosed to Industry in the Draft Section M. Release of a Draft RFP without Sections L&M or parts of the RFP other than Sections L&M can be released at the discretion of the Contracting Officer, and do not require SSAC or SSA concurrence.

12.8.D. An important part of planning for an evaluation that has no classified requirements is setting up a limited access computer share folder and scheduling the use of a proposal evaluation room that is suitable for securing Source Selection Information. Please note that AIR-4.0E has limited facilities for evaluating classified



proposals (up to secret) and has no classified computers or SIPRNet connections. (Contact Linda Carrico to schedule AIR-4.0E managed evaluation rooms and to aid in setting up share folders.)

- 1) Because of the competitive nature of Source Selections (and because it's the law), Source Selection Information must be kept secure with limited access to only those persons with a need to know, and who have signed a non-disclosure agreement. Share folders should be set up early in the process to facilitate development of the RFP, particularly Sections L&M, and evaluation planning documents such as the Source Selection Plan (SSP), the Evaluation Plan, Pre-solicitation/Pre-Proposal Conference briefs, etc. It is also useful in sharing various acquisition/source selection documents and training briefings. The share folder is also an important resource for managing the evaluation and electronic storage of the proposals. The share folder is where evaluators will document and store their findings (Evaluation Worksheets) and where various other documents (e.g. Evaluation Notices and replies, the SSEB Report, and Evaluation briefings) can be processed and filed.
- 2) Scheduling of evaluation rooms should occur as soon as the time of the evaluation and the number of evaluators can be reliably predicted. Evaluation rooms managed by AIR-4.0E are limited and are not available for every program. In the event that AIR-4.0E evaluation spaces are not available, the Program Office is responsible to find other secure evaluation facilities.

12.8.E The following are some critical milestones, process times, occurrences and events to consider in developing a low risk source selection:

- 1) Expiration date of existing contract
- 2) Acquisition Plan/MOPAS approval
- 3) Funding cycles
- 4) Expected number of proposals
- 5) SSEB review of the RFP
- 6) Release of a draft RFP with Sections L&M to industry for comments
- 7) Legal Review Board - a 2 week Legal Counsel review of the RFP
- 8) 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
- 9) Peer Reviews and other "uptown" approvals
- 10) RFP release (1-2 days after the SSAC/SSA Meeting); and
- 11) Proposal receipt - 45-60 days after RFP release
- 12) Discussions
- 13) Business Clearances/ Contracts Administration Work
- 14) Contract Award
- 15) Contract handover

12.8.F. Training is an essential part of planning for the evaluation. Training modules provided at the appropriate time include L&M Development, SSEB Training, and Technical, Past Performance, Corporate Experience, Cost/Price training for Team Leaders and Evaluators. The following Computer-Based Training modules are now available on the NAVAIRU website: CORE-40E-101 Intro to Source Selection, CORE-40E-102 Evaluator Basic Training, CORE-40E-103 Developing Criteria and Proposal Instructions, CORE-40E-104 Evaluation Methodologies Overview, CORE-40E-201 SSA and SSAC Training, CORE-40E-301 Technical Evaluator Training, CORE-40E-401 Past Performance Overview, CORE-40E-402 Collecting Past Performance Data, CORE-40E-403 Assessing Past Performance Relevancy, CORE-40E-404 Past Performance Contract Assessment, and CORE-40E-405 Past Performance Offeror Assessment. CORE-40E-101 Intro to Source Selection should be viewed early in the RFP development process to help ensure that the RFP integrates evaluation considerations, resulting in an aligned acquisition and evaluation strategy as well as technical requirements that are good standards for the evaluation.

12.8.G. When developing the evaluation schedule, a low risk schedule should consider an 8 to 12 month process time from proposal receipt through contract award and is dependent upon whether or not external (ASN or OSD) peer reviews are required. Consider the complexity of the evaluation, the number of Offerors, the need for

Peer Reviews, and process time historical metrics when establishing the schedule. ASN Peer Reviews are required for Services Procurements over \$250M. For any procurement over \$1B an OSD Peer Review is an additional requirement, which is also coordinated through ASN. Peer Reviews are accomplished to provide advice at Final RFP Release, Prior to closing Discussions, and Prior to 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.

12.8.H. Source Selection Office (SSO), AIR-4.0E, 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 SSO 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. If serving as the SSEB Chair, 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 Expense Operating Budget (EOB) funded source selection experts and exists as a valuable resource to NAVAIR. However, due to the limited number of people in the SSO it is best to give the SSO Director/Deputy 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.

12.9. SSO POCs:

|                 |                      |                |
|-----------------|----------------------|----------------|
| Alan Goldberg   | Director             | (301) 757-1810 |
| Kevin Kennedy   | Deputy Director      | “ 757-1806     |
| Jim Stanford    | Team Lead            | “ 757-1807     |
| Christine Hill  | Team Lead            | “ 757-7101     |
| Lasandra Nelson | Team Lead            | “ 342-6398     |
| Melissa Parker  | Team Lead            | “ 757-9419     |
| Linda Carrico   | Management Assistant | “ 757-1811     |

## CHAPTER XII: COMPETITION & SOURCE SELECTION

### PART C: PAST PERFORMANCE, CORPORATE EXPERIENCE, & BEST VALUE

12.10. Purpose. To provide the NAVAIR position on the use of past performance/systemic improvement and corporate experience in the source selection process.

#### 12.11. Discussion

12.11.A. Past performance confidence assessment is used as a tool in the source selection process. NAVAIR has developed a system of evaluating contractor past performance, which is addressed in NAVAIRINST 4200.39C. 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. Areas to be assessed include technical (quality of product), cost, management, utilization of small business, and adherence to established schedules. Program Managers should note that their due diligence in completing accurate and clearly written CPARS on existing contracts is critical to the effectiveness of a Past Performance evaluation. In turn, contractors will be incentivized to receive good CPARS ratings because they will know that their performance on existing contracts will be evaluated during the next competition.

12.11.B. Past Performance is a unique factor where the confidence in the Offeror's future performance is assessed based on the capability it demonstrated through performance on similar past work. Corporate Experience is another factor where the confidence in the Offeror's future performance is assessed based on the capability it demonstrated through past work. The difference is that Corporate Experience assesses **whether** the offeror has performed similar work in the past, while Past Performance assesses **how well** the offeror has performed similar work in the past. As stated, these factors assess the offeror's capability, and help to assess confidence in how the Offeror will perform in the future. The difference between Past Performance/Corporate Experience and Technical/Cost/Price is that Technical/Cost/Price are proposal evaluations that assess the Offeror's promises while Past Performance and Corporate Experience assesses the Offerors capability based on current and previous work.

12.12. Summary. Past Performance and Corporate Experience adds a unique insight into the Government's ability to select best value by going out of the proposal and into the offeror's past. These factors are based on what the offeror has done in the past vice whatever promise they can propose. The offeror can propose and change its promises, but cannot propose or change its past. NAVAIR will continue in future evaluations to develop the best method of using Past Performance, Corporate Experience and other criteria in the source selection process.

#### 12.13. SSO POCs:

|                 |                 |                |
|-----------------|-----------------|----------------|
| Alan Goldberg   | Director        | (301) 757-1810 |
| Kevin Kennedy   | Deputy Director | “ 757-1806     |
| Jim Stanford    | Team Lead       | “ 757-1807     |
| Christine Hill  | Team Lead       | “ 757-7101     |
| Lasandra Nelson | Team Lead       | “ 342-6398     |
| Melissa Parker  | Team Lead       | “ 757-9419     |

## **CHAPTER XIII: ACQUISITION LOGISTICS SUPPORT**

### **PART A: PROGRAM MANAGEMENT RESPONSIBILITY AND THE ROLE OF THE PRODUCT SUPPORT MANAGER (PSM) / INDEPENDENT LOGISTICS ASSESSMENT (ILA) PROCESS FOR MILESTONES B, C AND FRP AND POST FRP ASSESSMENTS**

13.1. Per DoD 5000.1, the Program Manager (PM) shall be the single point of accountability for accomplishing program objectives for total life cycle systems management, including sustainment. PMs shall consider supportability, life cycle costs, performance, and schedule comparable in making program decisions. Planning for Operation and Support and the estimation of total ownership costs shall begin as early as possible. Supportability, a key component of performance, shall be considered throughout the system life cycle.

13.1.A. The tenets of life cycle management emphasize an early focus on sustainment within the system life cycle. Life cycle management is the implementation, management, and oversight, by the designated PM, of all activities associated with the acquisition, development, production, fielding, sustainment, and disposal of a DoD system across its life cycle. It empowers the PM as the life cycle manager with full accountability and responsibility for system acquisition and follow-on sustainment. Life cycle management concepts are now policy and have been initiated to provide more effective, affordable, operationally ready systems through increased reliability, supportability, and maintainability. The PM is also responsible for ensuring, throughout the system life cycle, the sustainment strategy is both regularly assessed and in full compliance with applicable statutory requirements in Title 10, United States Code.

13.1.B. Life Cycle Management (LCM) is defined as the designated PM's implementation, management, and oversight of all activities associated with the acquisition, development, production, fielding, sustainment, and disposal of a DoD system across its life cycle. Under LCM, the PM, with support from the Product Support Manager (PSM) for sustainment activities, is responsible for the development and documentation of an acquisition strategy to guide program execution from program initiation through re-procurement of systems, subsystems, components, spares, and services beyond the initial production contract award, during post-production support, and through retirement or disposal.

13.1.C. PMs pursue two primary support objectives. First, the weapon system must be designed to be supportable and reduce the demand for product support. Second, product support must be effective and efficient. The resources required to provide product support must be minimized while meeting Warfighter requirements. When developing and implementing a product support strategy, the goal is to balance and integrate the support activities necessary to meet these two objectives. LCM is therefore the implementation, management, and oversight, by the designated PM, of all activities associated with the acquisition (such as development, production, fielding, sustainment, and disposal) of a DoD weapon system across its life cycle. LCM bases major system development decisions on their effect on life cycle operational effectiveness and affordability. LCM responsibility encompasses, but is not limited to, the following:

- Single point accountability (the PM, with direct support from the PSM) for developing and delivering program product support objectives including sustainment;
- Development and implementation of product support strategies;
- Documentation of product support strategies in the Life Cycle Sustainment Plan (LCSP); and
- Continuing and regular reviews, revalidation, and update of product support and sustainment strategies, including the LCSP and the Business Case Analysis (BCA).

13.1.D. The PSM, acting as the PM's agent, is responsible for developing and implementing a comprehensive product support strategy and for adjusting performance requirements and resource allocations across Product Support Integrators (PSIs) and Product Support Providers (PSPs) as needed to implement this strategy. Furthermore, the PSM's responsibility carries across the life cycle of the weapon system by requiring the revalidation of the business case prior to any change in support strategy or every five years, whichever occurs first. The PSM will utilize resources available, including product support acquisition guidance, appropriate planning and management techniques, pre-defined supportability and business-case analysis tools and routine progress assessment activities in

order to acquire, develop and deliver a comprehensive product support strategy consistent with the Program Managers total life cycle sustainment responsibility.

13.2. The following sections will outline the Independent Logistics Assessment (ILA) process. Aside from an ILA being a mandatory, statutory, requirement, one should look at the ILA as experts helping you. The ILA process brings subject matter experts from across NAVAIR, not just AIR-6.0, to focus their attention on your program.

#### 13.2.A. PRE-ILA MEETING

##### **Purpose:**

The ILA process at NAVAIR also recommends the inclusion of a pre-ILA planning phase into your schedule. This phase brings together you and the SME to identify actions you should be taking to plan for and execute a “best practices” program.

Planning for the pre-ILA planning phase btwn APML & ILA Team Leader (TL) ~ 24 months prior to the Kick- off Pre-ILA planning phase APML & IPT meet with ILA TL and SMEs 22 – 24 months prior to the Kick- off meeting.

##### **Goals:**

Identify actions you should consider for your program – CDRLs / DIDs, individual product support element planning and contractual requirements. SMEs explain their part of the supportability process and documentation requirements that the APML will need to navigate in order to plan for, budget for, and contract for in order to deliver the support system at the right times.

APML and IPT continue to meet the SMEs who can provide valuable insight into the efforts they need to accomplish to develop a successful program.

#### 13.2.B. BACKGROUND & POLICY

Per SECNAVINST 4105.1 Series, “Independent Logistics Assessment (ILA) and Certification Requirements,” individual Program Executive Officers (PEOs) and Systems Command (SYSCOM) Commanders are responsible for ensuring that an ILA is accomplished on all ACAT programs prior to Milestones B, C and the Full Rate Production (FRP) decision. In NAVAIR, AIR-6.0 has been designated as the agent to conduct ILAs in support of the NAVAIR PEO’s and the SYSCOM Commander. The outcome is a certification of the status of the Integrated Product Support (IPS) elements prior to the milestone decision through a letter and report to the PEO and MDA. Results of these assessments should also be a primary input into the related gate decision meetings as defined in SECNAVINST 5000.2 for those programs subject to the two pass/six gate review process, as well as data that is documented in the LCSP.

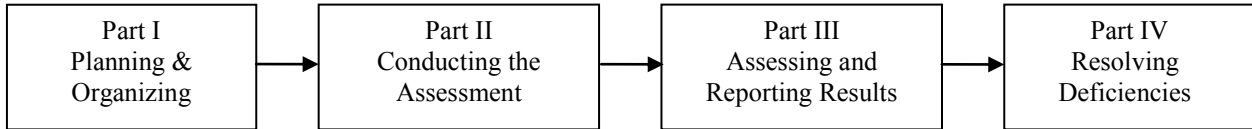
Your entry point into the ILA process is AIR-6.0T. Individuals within AIR-6.0T will provide you with necessary tools such as the ILA handbook, ILA briefing template, and ILA checklist. Contact an AIR-6.0T representative at one of the following phone numbers:

|   |              |
|---|--------------|
| John Harris   | 301-757-3085 |
| Clarissa Dziewit  | 301-757-8317 |
| Ed Werkmeister  | 301-757-8291 |
| Pam Howland   | 301-757-8206 |
| Mical Bindschatel (For PEO(U&W) missiles and bomb programs) | 760-939-7350 |

#### 13.2.C. ASSESSMENT PROCESS

1. The assessment process is designed to provide input to the PEO and the Milestone Decision Authority (MDA) for their oversight and decision making processes. Perhaps, most importantly, it is to provide help to the APML by bringing together a team of subject matter experts that can provide valuable insight and recommendations regarding the development of the supportability program. Consequently, the timeframe between assessments should never exceed five years. If the timeframe between milestones or the FRP decision exceeds five years, an ILA shall be conducted prior to the five-year mark and, if possible, coincide with major systems engineering reviews such as the Critical Design Review or Production Readiness Review (PRR).

2. This handbook is divided into four parts to coincide with the four process steps identified below. The ILA will be conducted following this process and use an independent team of subject matter experts. Each part provides detailed guidance to the program team, the ILA Team Leader and ILA team members on completing that portion of the ILA process as well as respective responsibilities to assist participants in completing ILA functions.



**PART I: Planning and Organizing**

Document preparation start 18 – 24 months prior to the Kick- off meeting

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**TIMEFRAMES FOR ILAs**

As stated in the SECNAVINST 4105.1C and this document, ILAs are scheduled prior to milestones B, C and the FRP decision in a time frame that allows the report to be disseminated to the stakeholders and decision makers prior to any milestone decision meetings. The ILA process at NAVAIR is approximately a nine month evolution. The assessment takes about two months and the time required to vet the ILA report through the APML, APEO(L), PMA, AIR-6.0 and the PEO is about two months. The process builds into this schedule adequate time for the APML and program office to resolve as many issues as possible prior to the report being finalized; consequently the process is about 9 months.

|  |                                   |
|--|-----------------------------------|
| Kick-Off Meeting   | 9 Months prior to milestone       |
| Assessment Period – initial look   | Months 9 – 8 prior to milestone   |
| Correction of documentation / correction of deficiencies and SME approval / final report input           | Months 8 – 5 prior to milestone   |
| Final Report Reviewed by<br>Assessors & APML<br>APEO(L)<br>Program<br>Senior AIR 6.0 Leaders (ILA Board) | Months 5 – 3 prior to milestone   |
| AIR 6.0 Signature  | Months 2 - 3 prior to milestone   |
| PEO Signature  | Months 2 - 3 prior to milestone   |
| Report sent to DASN (E&LM)   | No later than 1 month prior to MS |

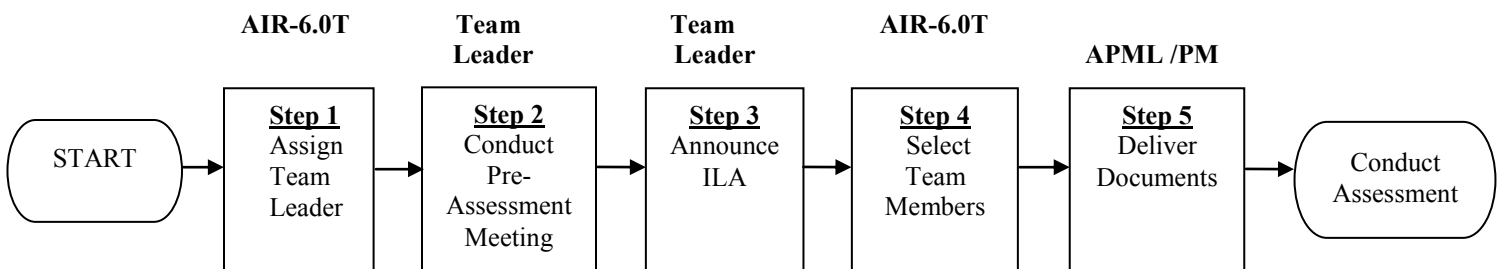
**MILESTONE DECISION**

**Month 0**

**PART I: Planning and Organizing**

The objective of the Planning and Organizing phase is to ensure the required preparation takes place in sufficient time to properly initiate the ILA. The conclusion of these steps will lead to the kick-off meeting, the start of the assessment.

**Process**



**Process Description**

### **Step 1 - Select Team Leader**

AIR-6.0T is designated by AIR-6.0 as their agent to manage the ILA process. This is the qualified team leader. AIR-6.0T will reach out to the competencies that provide members from a pre-qualified registry, to establish an assessment team.

### **Step 2 - Conduct Pre-Assessment Meetings**

The team leader conducts pre-assessment meetings with the APML and program manager, or designee, addressing the following:

1. Confirm the responsibilities of the program office, team leader and team members;
2. Confirm the purpose, scope, and timing of the review;
3. Discuss specific review procedures;
4. Coordinate the availability and location of IPS and program documentation;
5. Discussions between SMEs and program team regarding tasks and documentation required by IPS elements, such as maintenance planning efforts, etc;
6. Discussions regarding tailored listing of IPS and program documentation;
7. Clarify specific logistics assessment schedule of events/agenda;
8. Identify the location of all assessment activities;
9. Identify program office personnel to respond to ILA team member questions;
10. Identify security requirements and arrangements, as well as access to classified material;
11. Discuss the conduct of the assessment, including program office responsibilities to develop a program brief (Kick off brief);
12. Discuss the issuance of draft and final reports;
13. Discuss post-review procedures to include follow-up on identified issues;
14. Discuss certification criteria and rating process;
15. Discuss issuance of an IPS certification letter (certification letter stating the IPS program to be fully, conditionally, or not certified), and
16. Rationale for not reviewing a specific ILA element.
17. Discuss the program completing the ILA checklist as a self-assessment tool and a product useful to the SMEs.

There may be multiple pre-assessment meetings leading up to step 6, the kick off meeting. These meetings may have the following objectives and timeframes:

### **Step 3 - Announce ILA**

AIR-6.0T announces the upcoming ILA, stating the dates of the ILA, the scope, requesting the competencies to identify team members, identification of where documentation is located, meeting site, schedule, and agenda, security, and Point of Contact (POC) information. This announcement should be distributed to the participants and stakeholders (below) at least four weeks prior to the start of the ILA for an ACAT I / II program.

- For Navy ACAT I and II programs, stakeholders are Deputy Assistant Secretary of the Navy (Acquisition and Logistics Management) (DASN (E&LM)), the respective Product DASN (PDASN), Chief of Naval Operations (N1, N4, N40, N45, N09), and Naval Facilities Engineering Command (NAVFAC).
- For Joint programs, in addition to the Navy and/or Marine Corps stakeholders, other services should be afforded the opportunity to participate in the ILA and be provided courtesy copies of ILA report(s) to their PEO and/or Acquisition Executive.

### **Step 4 - Select Team Members**

The team leader is responsible for ensuring that the competencies provide team members, who are subject matter experts (SMEs) or assessors in their specialty. AIR-6.0T maintains a list of SMEs that will generally participate. Team leader and team member qualifications are identified in Table 1 below:

Table 1. ILA Team Qualifications

| Qualification | Team Leader (Government Employee)   | Team Member   |
|---------------|---|---|
| Independence: | Must be independent of the program. Not active nor has been recently active in the management, design, test, production or logistics planning of the program, whether from the program office, supporting field activity, or a member of a contractor activity. | Must be independent of the program. Not active nor has been recently active in the management, design, test, production or logistics planning of the program, whether from the program office, supporting field activity, or a member of a contractor activity. |
| Experience:   | Participation in at least one ILA as a team member.   | Must have experience in the functional area being assessed.   |
| Education:    | Defense Acquisition Workforce Improvement Act Level III.  | Defense Acquisition Workforce Improvement Act Level II or equivalent certification.   |

**Step 5 - Deliver Documents**

The program office shall provide requested documentation to the ILA Team Leader as previously agreed to, but typically at least one week before the opening brief. Documentation should reflect the most current version identified during the pre-assessment and subsequent meetings. The Documentation Request List, (Appendix A) of the ILA Handbook, outlines typical documentation requirements that should be tailored for each ILA during the pre-ILA meeting to reflect program specifics and the upcoming milestone. The scope and depth of logistics support information in these documents can vary significantly from program to program and by acquisition phase. Some programs may be in a source selection process, or have sensitive/proprietary data issues. Team leaders need to identify team member information (e.g., Government, contractor) to the program office to verify if there are sensitive/proprietary data issues and ensure non-disclosure agreements are completed as required. Support contractor personnel should not be disqualified from participating as ILA team members if the proper disclosures are followed and they are not from a competing/interested source.

**Process Deliverables**

- ILA Team member listing;
- APML / IPT Team member listing;
- APML completed ILA checklist;
- APML kick-off briefing;
- ILA announcement/schedule and Program Documentation.

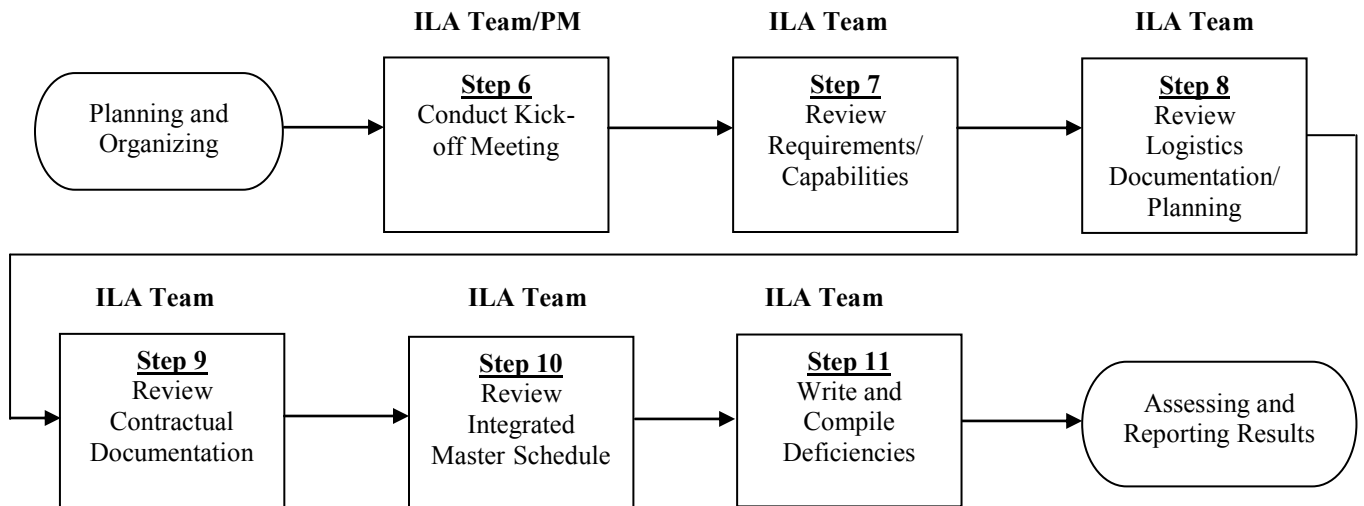
**PART II - Conducting the Assessment**

**Objective**

The objective of the Assessment phase is to follow a structured, repeatable process designed to ensure that the necessary efforts, tasks and products are planned and funded. This is an interactive effort between the APML / IPT members and the ILA Team (ILA TL and ILA Team Members / assessors / SMEs). Because this is a documentation centric process, the documentation you provided during the previous phase is of the utmost importance. The more complete the documentation is, the better the assessment will be. The lack of completeness of the documentation will result in more questions and a longer process.



## Process



## Process Description

### Step 6 - Conduct Kick-off Meeting

The opening meeting (Kick-off meeting) provides the logistics assessment team with a foundation of information regarding program background, current status, supportability funding, and plans for each product support element. It is important to recognize that assessment team members are not familiar with the subject program and the opening briefs are the best opportunity to impart the needed information/background to understand the program in its proper context. The opening briefs consist of the following:

**Program Brief.** The purpose of the program brief, normally presented by the program manager or the deputy program manager, is to impart a basic understanding of the acquisition program. It should address:

1. General description of the system, physical as well as functional
2. Scope of the LA (a clear description of the scope of the program being assessed, including hardware/software elements)
3. System interfaces
4. Planned operational use of the system
5. Support strategy, e.g., Life Cycle Sustainment Plan (LCSP), including unique considerations and performance objectives, metrics, supportability requirements and assessment strategy
6. Hardware if available
7. Current status of the program, including any pertinent history and program peculiarities
8. Size of the program in terms of number of units and dollars
9. Delivery schedules (end items and support elements)
10. Program funding status
11. Organizational structure of the program office
12. Acquisition and sustainment strategy, including contract status and milestones
13. Status of the program's documentation (outstanding items from the documentation request)
14. Program office and logistics points of contact
15. Identification of any developing or signed Program Manager Warfighter Agreements and Performance Based Agreements (PBAs)
16. Identification of any Memorandum of Agreement/ Understanding (MOA/MOU), Expectation Management Agreements, etc. with participating or supporting organizations

**Logistics Brief.** The logistics brief, normally presented by the program's PSM or APML, addresses each of the areas of supportability that will be reviewed by the logistics assessment team. The ILA Team Leader will provide a formatted PowerPoint presentation that the APML can populate with specifics for the program. At a minimum, it should address:

1. Structure of the program support organization
2. Status of supportability documentation (e.g., approval status)
3. Contracting approach
4. Results of any Business Case Analyses (BCA)
5. Support agreement strategy and status (e.g. extent of Performance Based Logistics (PBL) life cycle support (industry/organic) and associated BCAs)
6. Top-level schedules and milestones for each IPS element, including detailed support/PBL strategy
7. Status of detailed supportability tasks, schedules and milestones tied to the Integrated Master Schedule (IMS) and LCSP for each IPS element
8. Logistics and program risk assessment
9. Life Cycle Cost Estimate (LCCE)
10. Names and phone numbers of program office counterparts
11. Budgets (identifying the required, funded and delta amounts) for each IPS element
12. Data rights requirements and options pursued/ obtained to ensure logistics supportability products and infrastructure can be developed
13. Product Support Arrangements
14. Any other special interest items

**ILA Team Brief.** The purpose of this brief, presented by the ILA team leader, is to provide information to the ILA team members and program personnel on the conduct of the review. This brief should address the following:

1. A review of the responsibilities of the team leader and team members;
2. Specific logistics assessment schedule of events/agenda;
3. Instructions on documenting deficiencies and desired format;
4. Guidance on determining the timeframe in which recommended actions need to be completed, and
5. Post-review follow-up and certification procedures.

Step 7 through Step 11 are the heart of the assessment process. While the ILA Team Leader and SMEs / Assessors are the leads in these steps in the process, the APML and team members are equally involved. There should be constant communication between the ILA Team Leader, SMEs / Assessors and the APML and IPT members. The process is hierarchal, starting at the top (requirements documents) and working ones way down through the planning documents, schedules, budgets and contractual documents that implement and execute the requirements.

### **Step 7 - Review Requirements/Capabilities**

User needs and capabilities form the basis for the support system performance requirements.

Review the basic program requirements, including: Performance Agreements, Key Performance Parameters (KPPs) and critical system parameters in the Initial Capabilities Document (ICD), CDD and CPD, depending on the program phase, and the Acquisition Plan (AP) or Acquisition Strategy (AS).

### **Step 8 - Review Logistics Documentation/Planning**

ILA SMEs, as the focus of their assessment effort, will review documentation, such as the AS, LCSP, LRFS, and documentation associated with their area of expertise (e.g., Facilities Requirements Document) to determine that planning and budgeting is in place to support the requirements laid out in the requirements document. The LCSP should also provide a mapping to the primary support product/technical documentation, logistics schedules, and be supported by the logistics budget.

Review the Logistics Requirements and Funding Summary (LRFS) and associated funding documents to ensure funding requirements for each IPS element are appropriately identified, funding is available and shortfalls identified. Ensure each IPS element is funded in the year funding is contractually required to produce the support deliverable in the correct timeframe per the IPS IMS.

**ILA Criteria Requiring Review.** The following assessment criteria require review during an ILA regardless of the support strategy. In addition Product Support Budgeting and Funding, and Environment, Safety and Occupational Health (ESOH) should be assessed as separate elements.

1. Product Support Management
2. Design Interface
3. Sustaining Engineering
4. Supply Support
5. Maintenance Planning and Management
6. Packaging, Handling, Storage and Transportation
7. Technical Data Management
8. Support and Test Equipment
9. Training and Training Support
10. Manpower and Personnel
11. Facilities and Infrastructure
12. Computer Resources and Software Support
13. Product Support Budgeting and Funding
14. Environmental, Safety and Occupational Health

### **Step 9 - Review Contractual Documentation**

Review the SOW, RFP, and contract/tasking to ensure appropriate requirements have been identified.

The solicitation package or contract should be assessed for adequacy of supportability requirements.

Similarly, field activity tasking documents (in place and proposed) should be reviewed to ensure the Government supporting activities are appropriately engaged, tasked and funded.

### **Step 10 - Review Integrated Master Plan (IMP) and Schedule**

Review ILA Element Assessment Criteria against the master program schedule. Review reasonableness of the tasks and likelihood of completion of each IPS task within the allocated schedule and man loading.

A program's overall schedule reflected in the IMS can range from being an imposed schedule to one that has some flexibility. The logistics support tasks for each IPS factor must be planned, scheduled and integrated with other program activities. The sequence and dependencies of one task upon another must be included in determining schedule realism. The integrated master program schedule timelines must be achievable within funding constraints when considering a bottoms-up view of all required detail tasks and their inter-dependencies. The LCSP should contain the detailed Plans of Actions and Milestones (POA&M) for each IPS element for focused IPS management planning/implementation.

### **Step 11 - Write and Compile Deficiencies**

Deficiencies are individual Word documents that describe the issue or concern, what the impact is, what should be done about it and the program's plan to resolve it. The deficiency has a 5 x 5 risk rating assigned to it. The deficiencies, if any, for each IPS element, are packaged together into an ILA report.

It cannot be stressed too much that the foundation of assessing the program is 1) reading the documentation and 2) communication between the SME and their counterpart on the program team (APML, LEM, etc.) The ILA team leader and team members will conduct their review using the assessment criteria contained in Section 2.4 of the ILA handbook as assigned by the ILA Team Leader.

The draft deficiencies shall be shared with the APML and the SME's program counterpart. This is essential, as communications is paramount to the process. On the other hand, it is just as critical to the ILA process be based on written documentation that forms the program planning and execution process, such as the LCSP, IMS, LRFS or other lower level documentation such as the maintenance plan. A PowerPoint presentation is not considered as appropriate documentation on which to base the deficiencies prepared by the SME.

### **Process Deliverables**

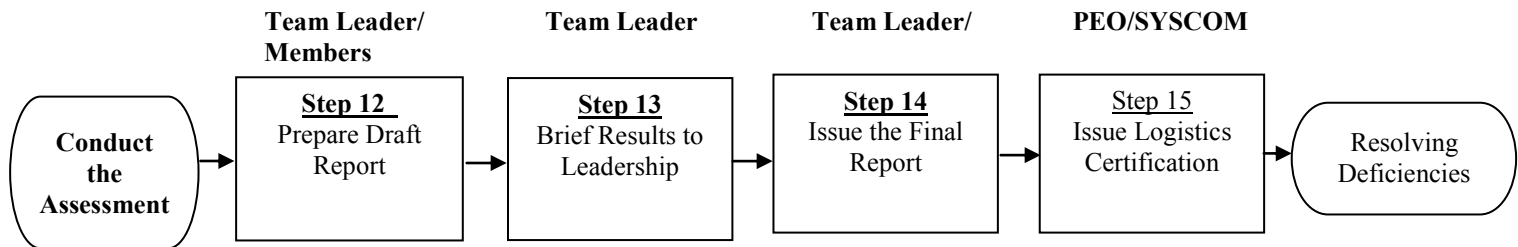
- Draft Deficiencies/Recommendations.

## PART III – Assessing and Reporting the Results

### Objective

Part III addresses the preparation of the ILA Report, coordination with the program office and submission of the report to the cognizant PEO or SYSCOM. The report will serve as the basis for the IPS certification decision by the PEO or SYSCOM.

### Process



### Process Description

#### Step 12 – Prepare Draft Report

The ILA report is the responsibility of the ILA team leader in all phases of development. The development of the ILA report is iterative processes in which the draft deficiencies and recommendations discussed above are shared with the APML and program office as part of the communication process. The contents of the draft ILA report should not come as a surprise to the APML or the program team. Some of the more important steps in the preparation of the draft ILA report include.

1. Team Leader reviews the draft deficiencies through the entire process and steps in to address differences between the ILA team members and the program team.
2. Team Leader reviews the draft deficiencies for appropriate risk ratings using the Green, Yellow or Red Rating using the Consequence and Likelihood Decision Tables and accompanying ILA Risk Matrix in the ILA handbook. Examples are also provided in figures C-1, C-2a and C-2b of this section.
3. Provide the draft report for review by the SME.
4. Provide the draft report for review by the ILA Branch Head and AIR-6.0T.
5. Provide the draft report for review by the APML and the logistics team.
6. Provide the draft report for review by the ILA Branch Head and AIR-6.0T.
7. Provide the draft report for review by the APEO(L).
8. Assessment Criteria areas without deficiencies will be documented in the back of the report.
9. Careful consideration of all outstanding deficiencies and their associated risk will be used to develop the overall logistics program certification recommendation.
10. In general, if there are major deficiencies that cannot be corrected prior to the issuance of Logistics Certification or the Milestone Decision, the rating should not be "Green." The team leader should brief the program manager prior to release of the final ILA Report on each deficiency and recommendation as well as the team leader's recommendation for logistics certification.

The report must reflect a clear distinction between issues requiring resolution prior to the milestone decision and issues that may be resolved after the milestone at specific timeframes (e.g. prior to contract award or release of the request for proposal, or prior to Fleet introduction or operational evaluation, etc.). As the report is being drafted, the Program Manager provides a formal POA&M to address each deficiency identified in the ILA report. POA&Ms should be submitted and included in the final report, if possible. If they are not finalized prior to issuance of the final report, they will be provided to the team leader at a mutually agreed to time. All proposed actions should address funding availability and support overall program milestones. The team leader, in consultation with respective team members, shall review and respond to the proposed POA&Ms, ensuring adequacy and appropriateness of the planned actions.

### **Step 13 – Brief Results to Leadership.**

The team leader ensures that the draft ILA report that is prepared for signature is taken through a series of reviews by senior leaders to:

1. Provide a forum where the program office and the ILA team can address difference they may have regarding the contents of the report or its conclusion and;
2. Ensures that leadership agrees that the report appropriately states the outcome of the assessment and the associated recommendations to the PEO and the milestone decision authority (MDA).

The reviews are generally as follows:

ILA Board – AIR-6.6, AIR-6.7 and AIR-6.8 senior leadership. Also included are the APEO(L) and AIR-6.0T leadership. Depending on the gravity of the deficiencies and the ACAT level, this meeting may be achieved either virtually via e-mail or a formal meeting. The APML and program team attend to address their concerns, if any, with the ILA report and to address how they will resolve or mitigate deficiencies.

### **Step 14 – Issue the Final Report.**

AIR-6.0 or AIR-6.0A - This is usually a replay of the ILA board for AIR-6.0. AIR-6.0 signs the letter with the attached ILA report and forwards it to the PEO. This is AIR-6.0s ILA Certification recommendation to the PEO. The team leader incorporates any changes or corrections resulting from discussions during this AIR-6.0 leadership review.

The final report is forwarded by the team leader to the applicable Program Manager and PEO/SYSCOM Commander. The ILA report is not distributed outside the command until the PEO provides the certification letter in step 15 below.

### **Step 15 – Issue Logistics Certification.**

Upon receipt of the final report, the cognizant PEO/SYSCOM Commander will review the report and certify the ILS certification via a separate letter to the PMA and the MDA and key DoN Stakeholders no later than four weeks prior to the scheduled milestone or FRP decision meetings. For ACAT ID programs, PEOs shall also copy the Deputy Assistant Secretary of Defense (Materiel Readiness) (DASD (MR)) (ref DASN (A&LM) Memo, IPSA Reporting Requirements, dtd 7 Dec 09), with copy to DASN (A&LM) and OPNAV (N4) for Navy / HQMC (I&L) (TLCM) for USMC, as well as other stakeholders identified in SECNAVINST 4105.1 Series. For joint programs, a courtesy copy of the ILA report should also be provided to other affected Service's PEO and/or Acquisition Executive (ref DASN(A&LM) Memo, IPSA Reporting Requirements, dtd 7 Dec 09).

### **Process Deliverables**

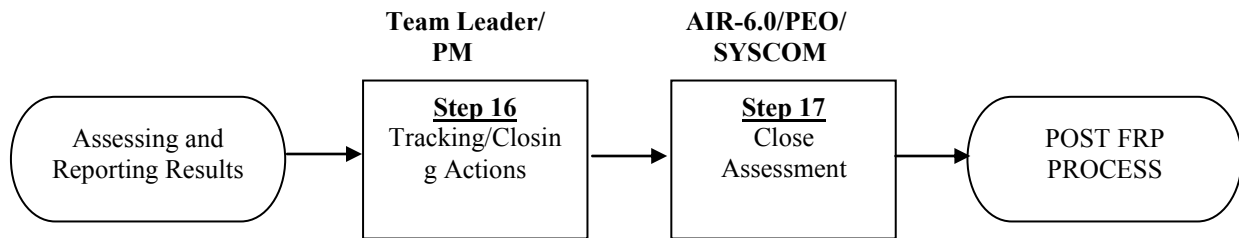
1. ILA Report, including POA&M
2. Logistics Certification Letter

## **PART IV - Resolving Deficiencies**

### **Objective**

The objective of Part IV is to ensure the deficiencies identified in the assessment report are adequately resolved. This is one of the most important tasks in the entire ILA process. If deficiencies in planning, funding, or execution are only documented and not resolved, the end user will not receive necessary IPS products. To ensure deficiencies are adequately resolved, the ILA team leader must remain engaged with the Program Office until completion of each deficiency can be independently verified.

## Process



## Process Description

### Step 16 – Tracking/Closing Actions.

The responsibility for implementing and completing corrective actions remains with the program office, and where applicable, with the external agencies or organizations responsible for logistics support elements not under direct control of the program manager. Written status of the actions in the POA&M must be provided to the ILA Team Leader. The periodicity of these status reports will be as agreed to between the Project Management Office and the team leader. The final responsibility for closing ILA deficiencies remains with the team leader, who should consult with the originator of a deficiency prior to closing it. Corrective Action Status will be reported and assessed at Gate reviews that fall in between ILAs.

### Step 17 – Close Assessment.

The ILA team leader must remain engaged with the Program Manager to ensure all POA&M actions are completed. Once all deficiencies have been satisfactorily resolved, as agreed to by the team leader, the ILA may be closed. The team leader provides the program office with correspondence from AIR-6.0 identifying that the program has closed all issues and provides recommendation that the certification can be changed to green. The PEO or SYSCOM commander does not have to re-issue a certification but can status the ILA as closed in future IPS briefs or Gate reviews. This process should be documented in the PEO/SYSCOM implementing procedure.

## Process Deliverables

1. Status reports
2. Team Leader responses/guidance to status reports
3. Final IPS Certification (if appropriate)

## ILA Deficiency/Recommendation Overview

Overall Program Assessment and Certification Criteria

| OVERALL PROGRAM ASSESSMENT AND CERTIFICATION CRITERIA   |   |  |
|---|---|--|
| NOT CERTIFIED (Red)   | CONDITIONALLY CERTIFIED (Yellow)  | CERTIFIED (Green)  |
| <p>A program is not certified when there are major product support planning and implementation issues or actions outstanding that have substantial impact on the program's ability to meet sustainment performance requirements within cost and schedule. Further, there are no plans or work-arounds in place that will correct the deficiency. The program should not proceed to a milestone decision until detailed action plans are developed and in place which meet minimum acceptable sustainment performance requirements with acceptable impacts to cost and schedule. Once these plans are in place and properly resourced to the satisfaction of the ILA team lead, PEO sustainment manager, or next echelon of sustainment competency, the program is considered to be conditionally certified.</p> | <p>A program is conditionally certified when product support planning and implementation issues of moderate risk have detailed action plans established and in place. However, the resolution of the deficiency will not occur prior to the milestone decision and requires continued monitoring. Once the action is completed, there is no expected degradation to sustainment performance requirements and minimal impact to cost and schedule. Once identified actions are resolved as verified by the ILA team lead, PEO sustainment manager, or next echelon of sustainment competency, the program is considered certified.</p> | <p>A program is considered certified when there are no (or only minor) product support planning and implementation issues. Each issue has an approved mitigation plan in place to eliminate the deficiency prior to the milestone decision. There is no impact on the program's ability to meet sustainment performance requirements within cost and schedule.</p> |

### ILA Risk Matrix

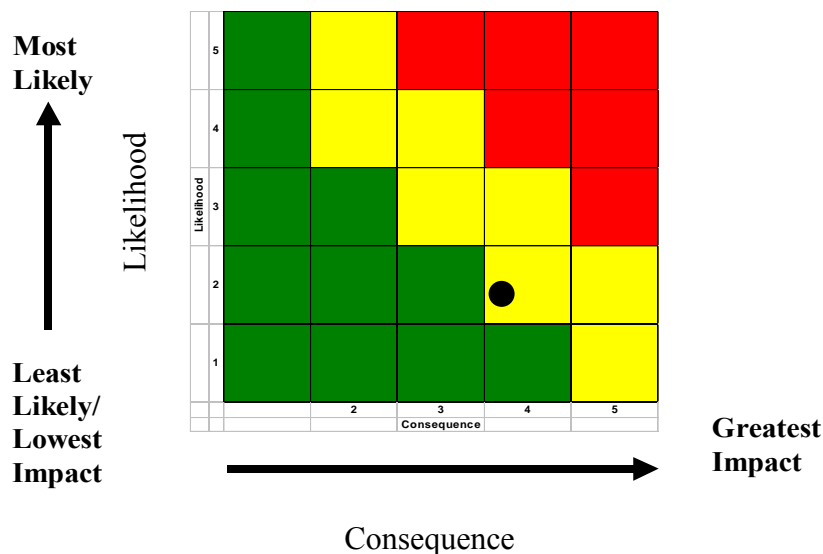


Figure C-1: Risk Matrix

**Consequence: Impact on Program If Consequence Occurs**

| Level | Cost   | Schedule  | Performance   |
|-------|--|---|---|
| 1     | Minor or no impact to supportability   | Minor or no impact to supportability  | Minor or no impact to supportability  |
| 2     | Some supportability impact; Re-allocatable within program                          | Some impact to logistics tasks; Internally adjustable with no milestone changes                                   | Some impact to readiness, but can be remedied by program  |
| 3     | Funding is not available when needed, moderate impact to supportability            | Delays in logistics tasks impacting ability to meet milestones, but workarounds exist such that impact is minimal | Logistics requirements will not be met within budget or schedule, but can be if resources will be applied |
| 4     | Funding is not available when needed, significant impact to supportability         | Delays in logistics tasks with significant milestone impact   | Significant degradation below MOS thresholds  |
| 5     | Supportability cannot be achieved within current funding profile or not identified | Delays in logistics tasks with major impact to the ability to meet milestones or establish support capability     | Logistics performance requirements cannot be met  |

Figure C-2a. ILA Consequence Decision Table

**Likelihood: Probability That a Given Consequence WILL Occur**

| Level | Likelihood     |
|-------|----------------|
| 1     | Not Likely     |
| 2     | Low Likelihood |
| 3     | Likely         |
| 4     | Highly Likely  |
| 5     | Near Certainty |

Figure C-2b. ILA Likelihood Decision Table

**13.3. POST FRP PROCESS**

**13.3.A. BACKGROUND**

The Post FRP assessment is an ILA process that begins two years after the FRP decision and is then repeated approximately every five years thereafter. The Post FRP applies to Acquisition Category (ACAT I-IV) programs. The purpose of the Post FRP ILA is to compare actual supportability metrics with planned sustainment strategies (e.g., performance, cost, training effectiveness, customer satisfaction). Desired outcomes are to identify current and future readiness risk mitigation and/or issue resolution plans coordinated with the user and resource sponsors. A Post FRP ILA official sustainment program status summary of findings and recommendations for all ACAT programs is forwarded to the appropriate PEO for awareness and adjudication (if necessary) and further routing to the Milestone Decision Authority (MDA) for ACAT I and II programs. Currently, this process and approach is not applicable to sub-system ACAT level commodities (e.g., major avionics, etc.). An ILA approach for those sub-system ACAT programs will follow an appropriately tailored standard ILA process along with PEO reviews. The specifics of the Post FRP assessment are being vetted within and outside of the command; however, the following identifies the outline of the process.

**13.3.B. OVERVIEW**

There are several mature processes currently in place that meet the intent and objectives of a Post-FRP/5-Year ILA for Naval Aviation programs.



Along with Type/Model/Series (TMS) Type Commanders and Resource Sponsors (ROs), the Naval Air Systems Command (NAVAIR) make up the governance structure of the overall Naval Aviation Enterprise (NAE) led by Commander Naval Air Forces (CNAF). The NAE structure is addressed in detail in the Naval Aviation Enterprise (NAE) Organizational Structure and Governance of 30 October 2009 and the Naval Aviation Enterprise Current Readiness Handbook of October 2011.

The NAE is a behavioral model whose construct clarifies accountability for Navy and Marine Corps-wide efficient use of resources, promotes enhanced coordination and collaboration to achieve mission effectiveness, and streamlines decision-making. The mission (“what we do”) of the NAE is supportive of program Title 10 responsibilities. The NAE accomplishes this support through extensive data tracking and analysis leading to recommendations and implementation of current and future readiness approaches that optimize support to Combatant Commanders and fleet operational & training requirements. Current readiness is monitored and analyzed via the Logistics Assessment process as defined in the NAVAIR, AIR-6.6 Standard Work Package (SWP SWP6600-012 Logistics Assessment. At a minimum, each TMS platform team and its associated readiness posture is thoroughly analyzed on an 18 month cycle. The posture, along with recommended risk mitigation or issue resolution, is adjudicated amongst the NAE stakeholders.

In a similar manner, ACAT weapons and target programs assess current and future readiness issues associated with sustainment programs via processes outlined in the OPNAVINST 8000.16, NAVAL ORDNANCE MANAGEMENT POLICY (NOMP) and the Weapons Maintenance Readiness Review (WMRR) Charter. The Weapons Maintenance Readiness Review (WMRR) process follows a similar enterprise model that includes NAVAIR, fleet and resource sponsors. The semi-annual reviews assess all weapons and target program supportability risks and issues. Risk mitigation or issue resolution recommendations are considered, business case analyzed with recommendations forwarded via the WMRR stakeholders for adjudication. The vast majority of weapons are direct production to long term storage with little to no recurring/scheduled maintenance. Weapons maintenance and readiness status is generally assessed via Original Equipment Manufacturer (OEM) periodic All Up Round (AUR) or sub-system factory testing or LOT/age sample AUR fleet firings.

Additionally, all Program Executive Offices (PEOs) conduct semi-annual or annual program reviews (e.g., Program Management Reviews, Executive Steering Reviews, etc.) to include facets and attributes of logistics and supportability. These reviews report on readiness and cost drivers and initiatives to address program risk and issue resolution.

Finally, USMC Deputy Commandant for Aviation leads Executive Steering Summits (ESS) bi-annually for USMC TMS platforms that assess “front burner” readiness issues.

### 13.3C. CONCLUSIONS

The processes described above aforementioned produce extensive data, analysis, reporting and leadership awareness of risks and issues and actionable mitigation/resolution plans in a time-line that exceeds the periodicity envisioned for the SECNAV Post FRP requirement.

13.4. POC: Ildegardo Olea, AIR 6.6 TD; 301-757-6378; Mike Overs AIR.6.0T for ILAs; 301-757-910

## CHAPTER XIII: ACQUISITION LOGISTICS SUPPORT

### PART B: LIFE CYCLE SUSTAINMENT PLAN (LCSP)

#### 13.5. Discussion.

13.5.A. The Life Cycle Sustainment Plan (LCSP) is used to establish, document, and maintain program Acquisition Logistics Support. DoDI 5000.02 update requires that a LCSP be developed for all acquisition programs, and that the LCSP shall be approved as part of the Acquisition Strategy (AS) at Milestones B, C, and Full Rate Production Decision Review (FRP DR). Additionally, SECNAVINST 5000.2E requires a logistics support strategy be documented in the AS, which in turn may be further documented in a discretionary logistics supportability plan. According to the Defense Acquisition Guidebook (DAG), the LCSP is required to be developed and included as part of the Acquisition Strategy to document how the sustainment strategy is being implemented.

13.5.B. A sample format was established by the Principal Deputy Under Secretary of Defense Memo of 14 September 2011, "Document Streamlining – Life-Cycle Sustainment Plan (LCSP)"; which is titled: "Life-Cycle Sustainment Plan Sample Outline August 10, 2011 Version 1.0". Some frequently asked questions and Standard Work Package (SWP) can be found at: <https://myteam.navair.navy.mil/air/60KMS/lcsp/SitePages/default.aspx>.

13.5.B.1. The LCSP shall be a part of the program's AS and integrated with other key program planning documents. The LCSP shall be updated and executed during Production and Deployment and Operations and Support. Life-cycle sustainment planning shall be considered during Materiel Solution Analysis, and shall mature throughout Technology Development.

(a) An LCSP shall be prepared for Milestone B, and updated for Milestone C, FRP and Initial Operational Capability (IOC). The planning shall be flexible and performance-oriented, reflect an evolutionary approach, and accommodate modifications, upgrades, and re-procurement.

(b) Life-cycle sustainment considerations include supply; maintenance; maintenance planning and design interface; packaging and transportation; sustaining engineering; data management; configuration management; support equipment; automatic identification technology, radio-frequency identification, and iterative technology refreshment; Human System Integration (HSI) (including training and manpower); environment (including hazardous materials); safety (including explosives safety), and occupational health; protection of critical program information and anti-tamper provisions; supportability; and interoperability; and disposal. The LCSP should contain metrics in order to gauge whether sustainment metrics are achieved and sustained throughout the life cycle.

13.6. POC: <https://myteam.navair.navy.mil/air/60KMS/lcsp/SitePages/default.aspx>. Additional information can be found on the AIR6.0 Knowledge Management Site (KMS): <https://myteam.navair.navy.mil/air/60KMS/lcsp/SitePages/default.aspx>

## CHAPTER XIII: ACQUISITION LOGISTICS SUPPORT

### PART C: LOGISTICS REQUIREMENTS FUNDING SUMMARY (LRFS)

#### 13.7. BACKGROUND AND POLICY

Standard work package (SWP) SWP6600-003 addresses the key considerations for Logistics Requirements and Funding Summary (LRFS) development and maintenance. The LRFS is the logistic manager's critical management tool.

The LRFS is a logistics requirements process & tool developed and prepared in a NAVAIR wide standard format that can be tailored based on needs of the specific program. SECNAVINST 4105 series defines requirements for Independent Logistics Assessments (ILA's), which are to be performed prior to all milestones and prior to Initial Operational Capability (IOC) supportability review (IOCSR) and Post FRP assessments. Furthermore, SECNAVINST 5000.2 series requires all logistic funding requirements be identified and properly programmed. Gate 6 Sufficiency Reviews will address acquisition logistics and sustainment funding status.

The LRFS is an input to the program life Cycle Cost Estimate (LCCE). Logistics requirements are a significant portion of a system's total ownership costs and, therefore, an accurate and comprehensive LRFS is critical to creating a credible LCCE. The LRFS is a living document which requires continuous update.

#### 13.8. PSM/APML

The PSM/APML is responsible and accountable for the development and completion of the LRFS. All NAVAIR PSMs/APMLs/DAPMLs will use the AIR-6.6 approved standard elements and when defining logistics requirements. All logistic requirements will align to cost estimates and Budget exhibits.

#### 13.9. INITIATION REQUIREMENTS

Developing an LRFS and using it to manage a program allows logistics managers the ability to strengthen the credibility of logistics requirements. An LRFS is initiated when a weapon system concept becomes a Program of Record (POR), which can begin at milestone A,B,C and full rate production (FRP) for a particular system.

#### 13.10. COMPLETION REQUIREMENTS

The successful completion of the LRFS will result in the development of a program specific LRFS report and an LRFS Review. The LRFS provides an executive summary of logistics requirements versus funding for all product support elements and sub elements by fiscal year and appropriation. The LRFS report will be reviewed by the LEMs, PSM, AIR4.2, BFM, and IPT lead, and approved by the PSM, BFM, and IPT lead, as illustrated in the table below.

|        | APML | DAPML | PSM | IPT Lead | PMA | APEO(L) | AIRG.G | BFM |
|--------|------|-------|-----|----------|-----|---------|--------|-----|
| ACAT1  | X    |       | X   | X        | X   | X       | X      | X   |
| ACAT2  | X    |       | X   | X        | X   | X       | X      | X   |
| ACAT3  | X    | X     | X   | X        |     | X       |        | X   |
| ACAT4  | X    | X     | X   | X        |     | X       |        | X   |
| NonACA | X    | X     | X   | X        |     |         |        | X   |

13.11. POC: John Harris, AIR-6.0T, (301) 757-3085 or Ildegardo Olea, AIR-6.6 TD; 301-757-6378

## CHAPTER XIII: ACQUISITION LOGISTICS SUPPORT

### PART D: DOD HANDBOOK: PRODUCT SUPPORT ANALYSIS (PSA)

13.12. Purpose. MIL-HDBK-502A Product Support Analysis (PSA) offers guidance on product support as an integral part of the systems engineering process. This handbook provides guidance for the framework and descriptions governing performance of Product Support Analysis (PSA) during the life cycle of systems and equipment. To provide more affordable product support for materiel systems the DoD is focusing on total ownership cost throughout the life cycle. Achieving affordable support takes effective product support management across the product's life cycle.

#### 13.13. Source Documents:

Defense Acquisition Guidebook  
MIL-HDBK-502A, Product Support Analysis  
TA-STD-0017, Product Support Analysis  
GEIA-STD-0007, Logistics Product Data  
GEIA-HB-0007, Logistics Product Data Handbook  
TA-HD-0007-1, Logistics Product Data Reports Handbook  
NAVAIR-00-25-406 Design Interface Maintenance Planning Guide  
DI-SESS-81758A, Logistics Product Data  
DI-SESS-81759A, Logistics Product Data Summaries  
DI-PSSS-81872A, Level of Repair Analysis Report  
DI-PSSS-81873A, Level of Repair Input Data  
DI-SDMP-81748, Parts Management Plan  
DI-SESS- 81714, Provisioning Screening Data  
DI-SESS-81715, Provisioning Parts List  
DI-SESS-81874, Engineering Data for Provisioning (EDFP)  
DI-MGMT-81398C, HMMP Plan  
DI-MISC-81397C, HMMP Report

#### 13.14. Discussion

13.14.A. PSA activities are integral in the overall systems engineering process. This handbook addresses the overall PSA process and its associated activities, the selection and tailoring of those activities to meet DoD program supportability objectives, and sample contract language for acquiring PSA deliverables. The handbook provides guidance on tailoring the PSA industry standard SAE TA-STD-0017. The information contained herein is applicable, in part or in whole, to all types of materiel and automated information systems and all acquisition strategies. The focus of this handbook is to provide guidance to the members of the defense acquisition workforce who are responsible for the supportability of materiel systems or automated information systems. This handbook is for guidance only and cannot be cited as a requirement. SAE TA-STD-0017 and NAVAIR-00-25-406 should be used for PSA requirements.

PSA is a wide range of analyses that are conducted within the systems engineering process. The goals of Product Support Analyses are to ensure that supportability is included as a system performance requirement and to ensure the system is concurrently developed or acquired with the optimal support system and infrastructure. PSA includes the integration of various analytical techniques with the objective of designing and developing an effective and efficient Product Support Package. The primary techniques used in PSA are critical to the Supportability Analysis processes: Failure Mode, Effects and Criticality Analysis (FMECA), Fault Tree Analysis (FTA), Reliability Centered Maintenance (RCM) Analysis, Level of Repair Analysis (LORA), Maintenance Task Analysis (MTA), and additionally support core logistics analysis, source of repair analysis, and depot source of repair analysis.

13.14.B. The DoD PSA Handbook 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-HDBK-502 and compliments SAE TA-STD-0017 which provides general requirements and activity performance in conducting PSA 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
- PSA 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
- The PSA Process flow for all acquisition phases
- Samples of CDRLS and DIDS
- Assessment of Program's Intellectual Property Rights and Developing Data Rights Strategy

13.14.C. The PSA encompasses the following activities identified below:

#### Activity 1: Product Support Strategy

Develop a proposed PSA program strategy for use early in an acquisition program, and identify the Product Support Analysis activities and sub-activities which provide the best return on investment.

- Develop Potential Supportability Objectives
- Identification of Cost Drivers
- Update the Product Support Strategy

#### Activity 2: Product Support Planning

Develop a Product Support Analysis Plan which identifies and integrates all Product Support Analysis activities, identifies management responsibilities and activities, and outlines the approach toward accomplishing analysis activities.

- Product Support Analysis Plan (PSAP)
- Plan Update

#### Activity 3: Program and Design Reviews

Establish a requirement for the contractor to plan and provide for official review and control of released design information with Product Support Analysis program participation in a timely and controlled manner and to assure that the Product Support Analysis program is proceeding in accordance with the contractual milestones so that the supportability and supportability related design requirements will be achieved.

- Design Review Procedures
- Design Review
- Supportability and Supportability Related Design Reviews
- PSA Technical Interchange Meetings
  - Guidance Conferences
  - Design for Maintainer Reviews
  - Human Factors Reviews
  - System Safety Reviews
  - SETR Reviews

#### Activity 4: Application Assessment

Identify and document the supportability factors related to the application of the new product. It is a prerequisite activity to all others in a PSA program and should be done in conjunction with the JCIDS process to provide the basis for all Integrated Product Support planning and readiness analyses for the new system/equipment.

- Intended Use/Capabilities
- Quantitative Factors
- Field Visits
- Intended Use/Capabilities Report

#### Activity 5: Support System Standardization

Define supportability and supportability related design constraints for the new product based on existing and planned product support resources which have benefits due to cost, manpower, personnel, readiness, or support policy

considerations, and provide input into mission hardware and software standardization efforts.

- Support Standardization Constraints
- Standardization Costs
- Hardware/Software Standardization Approaches
- Standardization Risks

#### Activity 6: Comparative Analysis

Select or develop a Baseline Comparison System (BCS) representing characteristics of the new product for (1) projecting supportability related parameters, making judgments concerning the feasibility of the new product supportability parameters, and identifying targets for improvement, and (2) determining the supportability, cost, and readiness drivers of the new product.

- Existing Products
- Baseline Comparative System
- BCS Logistics Requirements
- BCS Qualitative Constraints
- BCS Drivers
- Identify Subsystem With No BCS
- BCS Update
- BCS Risks

#### Activity 7: Technological Opportunities

Identify and evaluate design opportunities for improvement of supportability characteristics and requirements in the new product.

- Identify Potential Technology
- Update Design Objectives
- Technology Risks

#### Activity 8: Supportability and Supportability Related Design Factors

Establish quantitative operations and support characteristics of alternative design and operational concepts, along with support-related design objectives, goals and thresholds, and constraints for inclusion in requirement, decision, and program documents and specifications.

- Operations and Support Capabilities
- Sensitivity Analysis
- Data Rights
- Capability Risks
- Key Performance
- Market Limitations
- Human Factors
- Modeling and Simulation (M&S)

#### Activity 9: Functional Requirements

Identify the operations, maintenance, and support functions that shall be performed in the intended environment for each product alternative under consideration; identify the human performance requirements for operations, maintenance and support; document the requirements in a task inventory. In addition to the specific task activities identified below, consider accomplishing: Equipment Downtime Analysis, Maintainability Design Evaluation, Failure Modes Effects and Criticality Analysis (FMECA), Testability Analysis, and Human Factors Analysis.

- Identify Functions
- Unique Item Functions
- Function Drivers
- Function Risks
- Failure, Modes, Effects, and Criticality Analysis (FMECA)

- Fault Tree Analysis (FTA)
- Reliability Centered Maintenance Analysis (RCM)
- Task Inventory
- Design Alternatives
- Function Updates

Activity 10: Support System Alternatives

Establish viable support system alternatives for the new product for evaluation and tradeoff analysis.

- Support Alternatives/Update Support Alternatives
- Viable Support Plans/Update Viable Support Plans
- Support Plan Risks

Activity 11: Evaluation of Alternatives and Tradeoff Analysis

Determine the preferred support system alternative(s) for each product alternative and participate in the assessment of alternative product tradeoffs to determine the best approach (support, design, and operation) which satisfies the need with the best balance between cost, schedule, performance, readiness, and supportability.

- Tradeoff Analysis
  - Qualitative and Quantitative Criteria
  - Analytical Relationships or Modes
  - Tradeoff/Evaluation Performance
  - Programmatic Assumptions
  - Tradeoff/Evaluation Results
  - Tradeoff/Evaluation Updates
  - Design Supportability
  - Impact on Existing or Planned Products
  - DMSMS/Obsolescence Support
  - New/Critical Support Tradeoffs
  - Design/Support Tradeoffs
  - Sensitivity of Support Tradeoffs
  - Manpower/Personnel Tradeoffs
  - Job/Duty Tradeoffs
  - Level of Repair Analysis
  - Diagnostics Tradeoffs
  - BCS/New Product Tradeoffs
  - Energy Tradeoffs
  - Damage/Repair Tradeoffs
  - Transportability Tradeoffs
  - Facility Tradeoffs

Activity 12: Task Analysis

Analyze required operations and maintenance tasks for the new product to:

- a. Identify product support resource requirements for each task.
- b. Identify new or critical product support resource requirements.
- c. Identify Packaging, Handling, Storage, and Transportation (PHS&T) requirements.
- d. Identify support requirements which exceed established goals, thresholds, or constraints.
- e. Provide data to support participation in the development of design alternatives to reduce O&S costs, optimize product support resource requirements, or enhance readiness.
- f. Provide detail data for preparation of cost estimates related to technical manuals, training programs, manpower, and personnel lists.

- Document Task Analysis
- New/Critical Resources
- Training Requirements
- Design Influence
- Risk Reduction

- Transportability Analysis
- Supply Support
- Logistics Products
- Task Analysis Updates
- Parts Screening

Activity 13: Early Distribution Analysis

Assess the impact of the introduction of the new product(s) on an existing product(s), identify sources of manpower and personnel to meet the requirements of the new product, determine the impact of a failure to obtain the necessary support resources for the new product, and determine essential support resource requirements for use in the intended environment.

- New Product Impacts
- Impacts on Manpower
- Readiness Impacts
- Survivability Analysis
- Impact Solutions

Activity 14: Diminishing Manufacturing Sources and Material Shortages Management

Establish a program for the analysis of the loss or impending loss of manufacturers or suppliers of parts and material required to operate and sustain the product.

- DMSMS/Obsolescence
- Technology Refresh Plan

Activity 15: Field Feedback

Analyze the supportability and supportability related field feedback data to verify achievement of the established objectives/thresholds.

- Feedback Sources
- Feedback Analysis
- Feedback Analysis Tools

Activity 16: Disposal Analysis

Identify the disposal procedures associated with a product, including facility equipment, focusing on those components, assemblies, sub-assemblies, parts, and materials that contain hazardous materials, wastes, pollutants, or precious metals, or are under export controls. Additionally, identify those products that can be recycled, reused, or salvaged.

- Component Disposal
- Product Disposal

Activity 17: Operational Suitability Test, Evaluation, Verification and Validation

Assess the achievement of specified requirements and identify reasons for deviations and methods of correcting deficiencies and enhancing product readiness.

- Product Support Package (PSP)
- Test Objectives/Resources
- Conduct Tests
- Analyze Test Results

These activities support life cycle sustainment product support and integrate the twelve Integrated Product Support (IPS) Elements. These elements include:

- Maintenance Planning and Management. Process defines the repairs and upkeep tasks, schedule, and resources required to care for and sustain a weapons system with the focus on being able to define the actions and support



necessary to attain the system's operational availability. These processes seek to identify, plan, resource, and implement maintenance concepts and requirements early in the weapon system acquisition to influence design for supportability and to enable properly planned maintenance at the right time, right level, and right location while optimizing resources.

- 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. Procurement of data, consumables, repair parts, and spares, to establish and to be able to perform Organizational ("O"), Intermediate("I"), and Depot ("D") level maintenance. Provisioning data is provided to the Program Office and NAVSUP WSS. NAVSUP WSS coordinates with FLIS and ERP 1.1 for NSN assignment that insure data is available to NAVSUP WSS, NAVAIR (via ERP1.1), and DLA to perform procurements. Data provided to the program office such as the Illustrated Parts Breakdown (IPB) becomes part of the technical publications that allow parts to be ordered in support of maintenance. The Indentured Bill Of Material (IBOM) is necessary to be able to perform DMSMS/Obsolence Management and assist in development of Repair BOMs for "I" level and "D" level maintenance stand up. Data must be maintained / updated to reflect configuration changes. These items are necessary to field and support the system including consumables, repair parts, and spares.
- Support Equipment. Individual Material Readiness List (IMRL) and non-IMRL equipment required to make an aeronautical system, command and control system, support system, subsystem, or end item of equipment (SE for SE) operational in its intended environment. This includes all equipment required to launch, arrest (except Navy shipboard and shore based launching and arresting equipment), guide, control, direct, inspect, test, adjust, calibrate, gauge, measure, assemble, disassemble, handle, transport, safeguard, store, actuate, service, repair, overhaul, maintain, or operate the system, subsystem, end item, or component. Support Equipment requires supporting elements of logistics be procured as part of its support package (i.e. ILS for support equipment).
- 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. The resources, processes, procedures, design considerations and methods to protect systems, subsystems, components and parts against environmentally induced corrosion and deterioration, shock and vibration, electrical field forces and other forms of degradation during worldwide shipment, handling, and storage conditions. This includes protection from the effects of direct exposure to extremes of: climate, terrain, operational environments, commercial distribution system and the Defense Transportation System. Transportability compatibility includes all modes of transportation, handling equipment and warehousing.
- 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.
- Sustaining Engineering. Focuses on improving engineering and logistics activities from the beginning of the life cycle to disposal in order to improve the maintainability, reliability, availability and supportability of the system. This

includes the following: the collection and triage of all service use and maintenance data; analysis of safety hazards, failure causes and effects, reliability and maintainability trends, and operational usage profiles changes; root cause analysis of in-service problems (including operational hazards, deficiency reports, parts obsolescence, corrosion effects, and reliability degradation); the development of required design changes to resolve operational issues; and other activities necessary to ensure cost-effective support to achieve peacetime and wartime readiness and performance requirements over a system's life-cycle.

- Product Support Management

### 13.15. Responsibilities

13.15.A. 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.

13.15.B. The APML shall conduct Product Support Analysis 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 Life Cycle Sustainment Plan (LCSP). 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.

13.15.C. The APML, in coordination with Military Service logistics commands, shall develop a life-cycle product (i.e., LCSP and PSAP). 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.

13.16. For a copy of the PSA follow the link to Logistics Tools, then PSA on the following website: <https://dap.dau.mil/career/log/blogs/archive/2013/03/25/new-mil-hdbk-502a-department-of-defense-handbook-product-support-analysis.aspx>. Also for additional related information refer to the "NAVAIR Logistics Handbook" located on the AIR-6.6 APML Essentials Page: <https://home.navair.navy.mil/air66wiki/MainPage.ashx>.

13.17. POC: Mike Pensenstadler, AIR 6.7.1, 301-342-4599, Mike Holder 301-342-6152, Tony Meath 301-342-4641

## CHAPTER XIII: ACQUISITION LOGISTICS SUPPORT

### PART E: LOGISTICS PRODUCT DATA (LPD)

13.18. Purpose. MIL-HBDK-502A, Product Support Analysis (PSA), provides guidance on support system development as an integral part of the systems engineering process. GEIA-STD-0007, Logistics Product Data (LPD) identifies a method for compiling the support and support related engineering and logistics data from equipment manufacturers into a comprehensive database to support resource identification, development and provisioning. This chapter will identify the logistics tasks that must be or should be accomplished phase by phase during the systems acquisition process. Information will also be provided for accessing Standard Work Packages (SWPs) for product development.

#### 13.19. Source Documents.

GEIA-STD-0007, Logistics Product Data  
GEIA-HB-0007, Logistics Product Data Handbook  
MIL-HDBK-502A DoD Handbook Product Support Analysis  
TA-STD-0017 Product Support Analysis  
NAVAIR Instruction 4790.22B, Design Interface and Maintenance Planning Program  
DI-SESS-81758A, Logistics Product Data  
DI-SESS-81759A, Logistics Product Data Summaries  
DI-PSSS-81872A, Level of Repair Analysis Report  
DI-PSSS-81873A, Level of Repair Input Data  
DI-SDMP-81748, Parts Management Plan  
DI-SESS- 81714, Provisioning Screening Data  
DI-SESS-81715, Provisioning Parts List  
DI-SESS-81874, Engineering Data for Provisioning (EDFP)  
DI-MGMT-81398C, HMMP Plan  
DI-MISC-81397C, HMMP Report

#### 13.20. Discussion.

13.20.A. LPD identification is part of the Product Support Analysis process previously known as the Logistics Support Analysis (LSA) process. The LSA process was actually two separate military standards MIL-STD-1388-1A, Logistics Support Analysis and MIL-STD-1388-2B, Logistics Support Analysis Record (LSAR). These standards were cancelled as part of the Acquisition Reform initiative in 1997. They are worthy of mentioning here because many equipment manufacturers continued to use these standards, followed many of the tasks requirements and used software programs to develop the LSAR to produce output summaries to satisfy government needs. Over the years LSA knowledge has waned in both government and industry. However, the LSAR continues to be a valuable tool and the data content now follows the guidance of GEIA-STD-0007. The data elements or attributes are very similar to MIL-STD-1388-2B although data transfer has been enhanced with the use of Extensible Markup Language (XML). In present day vernacular, the LSA process has taken on a new title, Product Supportability Analysis. The requirement to conduct the Supportability Analysis processes that produce LPD is contained in NAVAIR Instruction 4790.22B and requires the development of a LPD database which is necessary to produce standard output summaries, e.g., Maintenance Plan, Provisioning Record and Support Equipment Recommendation Data. These Supportability Analysis processes ((Failure Mode, Effects and Criticality Analysis (FMECA), Fault Tree Analysis (FTA), Reliability Centered Maintenance (RCM) Analysis, Level of Repair Analysis (LORA), and Maintenance Task Analysis (MTA)) are critical to the development of LPD. The Supportability Analysis tasks, development of the LPD data attributes and LPD database represent a fundamental change in the way data requirements are levied on contracts, but it is designed to minimize oversight and government-unique requirements. It also allows contractors maximum flexibility in designing systems and developing, maintaining and providing support and support related engineering data throughout the system engineering process. The general flow of DI/MP tasks prior to Milestone B are identified in Figure 13-1.

13.20.B. The Supportability Analysis tasks and LPD database development must be tailored to the unique requirements for each program. Tailoring is not difficult; however, program logistics managers may not be familiar with the process. Assistance is available from AIR-6.7.1 representatives. Through tailoring, contractors are strongly encouraged to offer support to the program office and should be required to rely upon engineering data to satisfy the Government and cost-effectively meet DoD's needs. Several options are available for LPD database

development and delivery of summary reports. Option selection is accomplished early in the system development process and is integral with tailoring.

13.21. Responsibilities. The Assistant Program Manager Logistics (APML) should determine what acquisition logistics products are to be developed and how they will be delivered (on-line access, electronic delivery to a government IDE, full-file data transfer, 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, support equipment, etc.) are developed. The APML should work closely with functional area Product Data Element Managers, cognizant IPT members and others to determine what data elements or attributes are needed to populate the LPD database. The data elements or attributes will be used for developing the output summaries. This logistics planning data will also be included in the Life-Cycle Sustainment Plan (LCSP) or a separate Product Support Analysis Plan (PSAP).

13.22. Content.

13.22.A. Initial delivery and subsequent updates to the LPD can be delivered digitally using DI-SESS-81758A, Logistics Product Data. If the option for output summary delivery is selected, DI-SESS-81759A, Logistics Product Data Summaries is used.

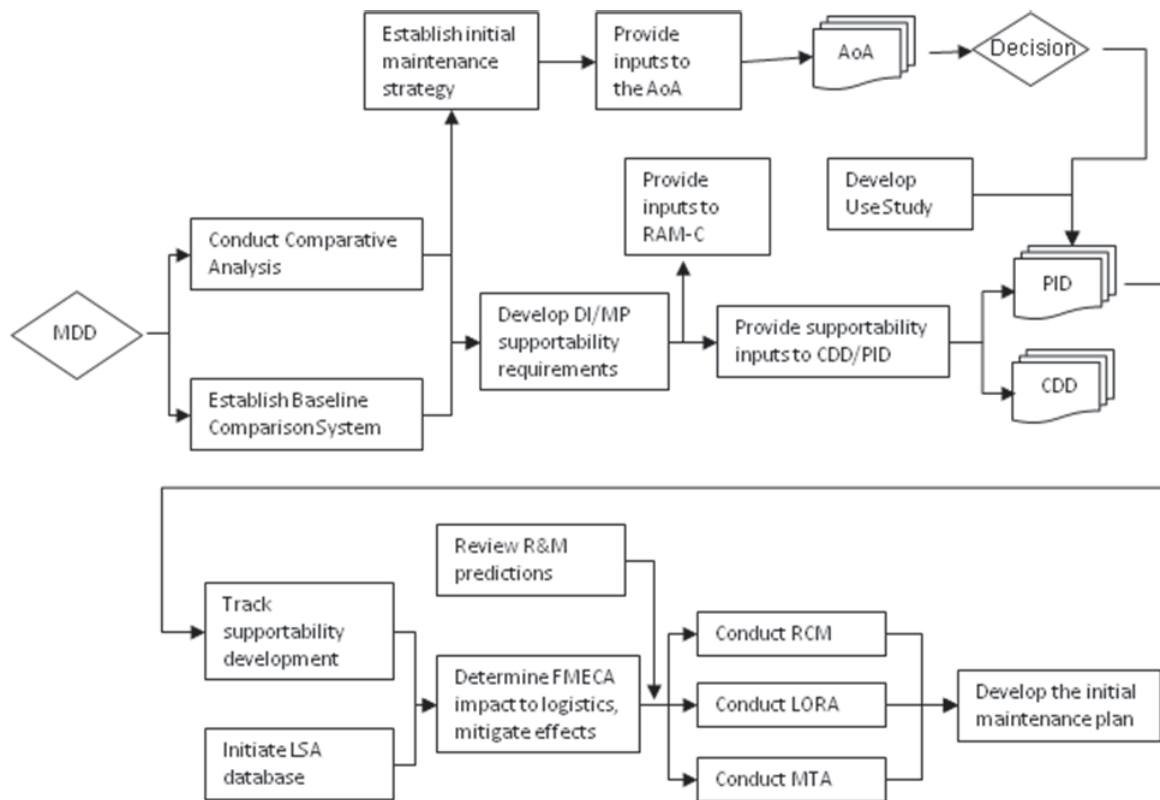


Figure 13-1 DI/MP Tasks

13.22.B. Additional guidance on output summary data element or attribute requirements can be found in GEIA-HB-0007, Logistics Product Data Handbook, Appendix D. Access to the 6.7.1 SWPs can be gained through the following hyperlink: <https://myteam2.navair.navy.mil/air/60KMS/bpdocs/Documents/Forms/AllItems.aspx>.

13.23. POC: Mike Pensenstadler, AIR 6.7.1, 301-342-4599, Mike Holder, AIR 6.7.1, 301-342-6152, Tony Meath, AIR 6.7.1, 301-342-4641

## CHAPTER XIII: ACQUISITION LOGISTICS SUPPORT

### PART F: OPERATIONAL CAPABILITY SUPPORTABILITY REVIEW (OCSR)

#### 13.24. Purpose

13.24.A. The purpose of the OCSR 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 and equipment to fleet customers. The OCSR process will provide quality and timely information to decision authorities regarding ILS support. The OCSR replaces the Independent Logistics Assessment (ILA) at IOC, and will be the basis for certifying for Rapid Deployment Capability (RDC) at IOC the adequacy of logistics support to the Milestone Decision Authority (MDA) for all ACAT I-IV programs.

13.24.B. The OCSR is a self-assessment, performed by the program logisticians with stoplight criteria agreed upon by the Fleet customer. Each program is required to brief their assessment at a formal Pre-Board, chaired by AIR-6.6 and the appropriate Type Commander (TYCOM) representative.

13.24.C. The OCSR process consists of five major phases explained fully in NAVAIRINST 4081.3. A brief summary is provided below.

#### 13.25. Source Document: NAVAIRINST 4081.3

#### 13.26. Responsibility

##### Phase I – Identification of Programs to be Assessed.

AIR-6.6E will coordinate annually with AIR-1.1.1 Program Management Acquisition Policy and Processes Department and develop a listing of all ACAT 1-IV programs that require an OCSR in within the next 24 months. This listing will be promulgated to the PEO(Ls) and AIR 1.0 to notify requiring activities of the time line and schedule for the OCSR event. The PEOs will provide assistance in coordinating the events.

AIR 6.6E will coordinate with the AIR 6.6TD, TYCOM, appropriate PEO or AIR 1.0 APEO(Ls) and Program Team and conduct a OCSR kick off meeting. The OCSR kick off meeting will provide the Program Team with the mutually agreed to schedule, required checklist and documentation, training materials and discuss lessons learned.

##### Phase II – The Program Self-Assessment.

Product Support Managers (PSM) or designated Assistant Program Managers for Logistics (APML) will conduct an IOC self-assessment. The self-assessment results will be recorded using the OCSR self-assessment briefing template, following the guidelines of the OCSR check list, provided at the OCSR kick off meeting. These two docuemnts can be found in the AIR-6.0 Knowledge Management Portal at <https://myteam2.navair.navy.mil/air/60KMS/default.aspx>.

PSM/APML will ensure a self-assessment is completed within the time frame established during the in Phase I. The self-assessments will address the all areas as outlined in the assessment template (Encl 2).

The PSM/APML, assessment should be risked-based, assessing issues that are not fully supportable as would be expected at OC during the course of the self-assessment, and must obtain fleet concurrence/non-concurrence with risk assessment, proposed work-around/mitigation planning, whenever full supportability will not be available at system OC/fleet introduction. Fleet concurrence must be provided by the appropriate TYCOM Class Desk representative, maintenance and/or supply officer.

##### Phase III – The Pre-IOCSR Board.

Pre-OCSR Board Responsibilities. Based upon their review of the self-assessments, the Pre-OCSR Board is responsible for:

- a. Resolving support issues where possible;
- b. Making a supportability recommendation to the OCSR Board;
- c. Recommending any special actions or conditions; and,
- d. Recommending which programs are to be briefed to the OCSR Board.

The Pre-OCSR Board is composed of the AIR-6.6 Technical Director, Program team members and others as required by the AIR-6.6 TD.

The Pre-OCSR Board will be scheduled when the program team has concluded its self-assessment, and should be scheduled to allow for adequate staffing of the OCSR briefing to the OCSR Board.

#### Phase IV – The OCSR Board

OCSR Board, based upon their review of the self-assessments and the Pre-OCSR Board's and the fleet's recommendations, is responsible for:

- a. Providing a supportability recommendation; and,
- b. Recommending any special actions or conditions.

#### OCSR Board Composition.

- a. The Fleet Board (0-6 level) is co-chaired by NAVAIR, AIR-6.6 Military Director and appropriate TYCOM, typically COMNAVAIRPAC/COMNAVAIRLANT (CNAP/CNAL) N-421, however Commander, Naval Air Training Command (CNATRA), or Director, White House Military Office (DIRWMO) may be the receiving fleet entity. The Fleet Board, with fleet / customer possessing the majority vote, will either accept the agreed-to program manager's plans and mitigation efforts as addressed in the OCSR presentation or specify additional actions. The minutes of the Fleet Board, along with the OCSR presentation, will be attachments to an OCSR certification letter.
- b. A Flag Board may be required if non-concurrence cannot be mitigated at the lower level or if NAVAIR/TYCOM leadership deems it necessary due to the scope or high level visibility or interest of a particular program.

The IOCSR Board Schedule. The IOCSR Board is to meet as required to ensure all programs recommended to the board are reviewed. AIR-6.6E is to establish the exact schedule, notify all participants and make all necessary arrangements (e.g., video teleconference, conference room reservations etc.).

Declaration of IOC. Upon completion of the OCSR Board and approval of "Ready for IOC", AIR 6.6 will forward a certification letter and meeting minutes to CNAP / CNAL N421 for endorsement. CNAP CNAL N421 will endorse the certification letter and forward the endorsement package to cognizant PEO / AIR 1.0 for further forwarding to the Milestone Decision Authority for declaration of IOC.

13.27. POC: <https://myteam.navair.navy.mil/air/60KMS/OCSR/SitePages/default.aspx>

## CHAPTER XIII: ACQUISITION LOGISTICS SUPPORT

### PART G: WARRANTIES

13.28. Purpose. Describe the warranty development process.

13.29. Discussion

13.29.A. The Defense Acquisition Guidebook, 16 September 2013, contains the following paragraph (2.8.7.5.11) for warranties: The PM should examine the value of warranties on major systems and pursue them when appropriate and cost-effective. If appropriate, the PM should incorporate warranty requirements into major systems contracts in accordance with FAR Subpart 4.7 and DFAR Subpart 246.7.

13.29.B. A program's Acquisition Plan should state the intent to use a warranty. The warranty program should also be included in the Life-cycle Support Plan.

13.29.C. 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.

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

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

- ◆ Task the Procurement Contracting Officer (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 Supply Systems Command) 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.

13.30. POC: Ildegardo Olea, AIR-6.6 TD; 301-757-6378.

## CHAPTER XIV: ENGINEERING DISCIPLINES

### PART A: HUMAN SYSTEMS INTEGRATION PROCESS

14.1. Purpose. Navy personnel are an integral part of the total system, and as such, human performance and design requirements must be addressed concurrently with other system performance requirements. The quality of the design and support solutions, associated with the system acquisition, directly impacts warfighter effectiveness and total system (hardware, software, human) performance. Nearly 70% of the Navy's budget is spent on personnel related expenses; most of these personnel costs are driven by decisions made during the early phases of the system acquisition process, and shortcuts taken in the design phase can easily become sustainment and operational problems. The assimilation of human performance considerations into the systems engineering and acquisition process is known as Human Systems Integration (HSI) and influences system design and associated support requirements so that developmental, non-developmental, and product-improved systems can be operated and maintained at the highest performance, and in the most cost-effective and safe manner.

#### 14.2. Source Documents

DoDI 5000.02, Operation of the Defense Acquisition System, Enclosure 8 Human Systems Integration  
SECNAVINST 5000.2E, Implementation and Operation of the Defense Acquisition Systems and the Joint Capabilities Integration and Development System, Chapter 6  
Defense Acquisition Guidebook, Chapter 6, HSI

#### 14.3. Discussion

In accordance with current DoD policy (DoDI 5000.02, dated 7 January 2015, Encl 7), the Program Manager (PM) shall have a plan for HSI in place early in the acquisition process to optimize total system performance, minimize total ownership costs, and ensure that the system is built to accommodate the characteristics of the user population that will operate, maintain, and support the system. HSI planning shall be summarized in the Acquisition Strategy and SEP and shall address the following disciplines: human factors engineering, personnel, habitability, manpower, training, safety and occupational health, and force protection and survivability. Navy policy also reflects its commitment to HSI. SECNAVINST 5000.2E, dated 1 September 2011, requires PMs to apply HSI as part of a systems engineering approach. This ensures that existing systems engineering processes and reviews will address the requirements on the human to operate, maintain, and support the resultant design. Analyses to reduce manpower, improve human performance, improve system reliability and usability, and minimize personnel risk are included as part of the HSI process.

The total system includes not only the prime mission equipment, but also the people who operate, maintain, and support the system; the training and training devices; and the operational and support infrastructure. The key to a successful HSI strategy is integration. To optimize total system performance and determine the most effective, efficient, and affordable design entails trade studies both within the HSI disciplines (manpower, personnel, training, safety and occupational health, human factors engineering, force protection and survivability, and habitability) and between the HSI disciplines and traditional hardware, software and acquisition disciplines. Program support (technical personnel, processes, tools) for these disciplines is provided by various NAVAIR engineering and logistics competencies. Beginning at program inception, the HSI effort helps develop system-specific and measurable HSI domain level requirements associated with the disciplines. HSI disciplines are then actively employed throughout the acquisition process to ensure a product is designed and delivered that is operable and supportable within those constraints. Further guidance and HSI process documentation is available from the NAVAIR HSI POC.

#### 14.4. Why HSI?

Navy systems employed by the fleet today make demands on the readiness, performance effectiveness, and mental and physical capabilities of personnel operating, maintaining, and supporting them. The systems being designed and acquired for tomorrow have the potential to increase these demands on operators and maintainers as system and environmental complexity increases. To address these concerns, HSI integrates the various disciplines of engineering and logistics that address the roles, requirements, provisions, and accommodations for human capabilities and limitations in system developments.



#### 14.5. HSI Information and Lessons Learned

A number of programs in the last several years have made significant strides in implementing HSI within the systems engineering and acquisition processes. Experiences from these programs have provided a number of lessons learned. The following list provides some of these lessons and provides guidance on sources that can assist HSI practitioners in avoiding some of the pitfalls.

a) HSI Planning. As stated in DoDI 5000.02, dated 7 January 2015, Encl 7, HSI planning shall be summarized in the Acquisition Strategy and SEP. The Virtual SYSCOM HSI Plan Preparation Guide can assist HSI teams in the preparation, update, and evaluation of HSI planning. HSI is an integration of the seven disciplines however most programs interpret HSI implementation as equivalent to implementing a Human Engineering Program. Simply implementing a Human Engineering effort does not meet the intent of DoD and SECNAV HSI policy and therefore does not constitute HSI compliance. The Virtual SYSCOM HSI Plan Preparation Guide and a Data Item Description for the HSI planning process can be obtained from the NAVAIR HSI POCs.

b) Plan Analysis. Continual analysis of system functionality provides data to help determine the best allocation of functions to personnel, hardware, or software. Results guide human workload predictions, man-machine interface requirements, and procedural, software, and hardware innovations needed to ensure that the human element can fulfill and enhance total system performance.

c) Conduct Proactive Tradeoffs. Tradeoff analysis between design, operational, and support alternatives are an inherent part of system development. In conducting tradeoff analyses both within HSI domains and for the system, the primary HSI goal is to maximize human performance and manpower to optimize performance and support capabilities for the total system within cost schedule and performance constraints.

d) Team Effort. DoD acquisition policy stresses the importance of Integrated Product and Process Development (IPPD). IPPD is a management technique that integrates all acquisition activities starting with capabilities definition through systems engineering, production, fielding/deployment and operational support in order to optimize the design, manufacturing, business, and supportability processes. At the core of the IPPD are Integrated Product Teams (IPTs). HSI support to Program or IPT level working groups are important integration mechanisms to be considered. Stove-piped IPTs should be avoided.

e) HSI Assessments. The NAVAIR Systems Engineering Technical Review (SETR) and Independent Logistics Assessment (ILA) processes shall be used to assist acquisition and competency personnel in evaluating the application of HSI principles during the acquisition life cycle. The NAVAIR SETR and ILA incorporates criteria related to HSI implementation into the review on a par with other design and support criteria for a given acquisition program.

f) Human Systems Information Guides. The Virtual SYSCOM HSI Working Group has developed HSI Guides that complement the DoD and DON acquisition policy. These guides are divided into multiple volumes that address all potential phases of a program from initiation of Concept, through Design and Development, to completion of Operations and Support. In these volumes, PMs, designers and HSI elements specialist will find what they need to do to successfully implement HSI at any stage of their program. Copies of these guides can be obtained from the NAVAIR HSI POCs.

g) Competency Support. The disciplines of HSI are scientifically-based technical disciplines with supporting theories, empirical data, analytical techniques, methodologies, and professional guidelines. Although fleet user representation on design teams is desirable and necessary, HSI professionals are able to provide their expertise for the technical bases upon which to support decision making in tradeoff analyses.

14.6. POC: Ms. Maria Thorpe (301-342-9201).

## CHAPTER XIV: ENGINEERING DISCIPLINES

### PART B: SYSTEMS ENGINEERING

14.7. **Purpose.** Systems Engineering (SE) is a key ingredient of successful Program Management. Although SE is an engineering technical discipline unto itself, it must be viewed as a set of tasks for the Integrated Product Team (IPT) and/or Fleet Support Team (FST) to apply and implement, rather than just “the (Chief) Systems Engineer’s job.”

#### 14.8. Source Documents:

1. NAVAIRINST 5000.24, Naval Systems Engineering 19 Jan 10
2. ANSI/EIA-632 Processes for Engineering a System 2 Feb 03
3. DoDI 5000.02 of 7 Jan 15
4. SECNAVINST 5000.2E of 1 Sep 11
5. Defense Acquisition Guidebook of 13 May 2013
6. DoD Systems Engineering Plan Preparation Guide, Version 2.01 of Apr 08
7. Naval Systems Engineering Guide, Oct 04
8. Naval Systems Engineering Resource Center (NSERC) <https://nserc.nswc.navy.mil>

#### 14.9. Definitions

**System** - A system is an aggregation of system elements and enabling system elements to achieve a given purpose or provide a needed capability that allow the end product to meet stakeholder needs and expectations over its life cycle.

**Systems Engineer** - The "Systems Engineer" refers to the Program Lead Systems Engineer, the Chief Engineer or Lead Engineer with Systems Engineering responsibility, and the SE staff responsible for SE processes and who plan, conduct, and/or manage SE activities in the program.

**Systems Engineering** – Systems Engineering is a holistic interdisciplinary technical approach that balances individual disciplines against each other to produce a coherent system that is not dominated by the perspective of a single discipline. It is a methodical and disciplined process used during concept, specification, design, development, manufacturing, verification, training, deployment/operations, and disposal/retirement phases of a system. Systems Engineering encompasses the entire technical effort throughout the product life-cycle, including the integration of people (e.g., operators and maintainers), products, and processes.

#### 14.10. Discussion

14.10.A. The Systems Engineering process is the core of engineering discipline for managing programs at NAVAIR. Systems Engineering defines structured technical baselines that will be documented, approved, and managed at specific design maturity points during system development. The Systems Engineering Technical Review (SETR) process, provides the necessary framework for technical oversight of the system in development to ensure the technical baselines are maturing accordingly and related risks are well understood and documented. The Assistant Program Manager for Systems Engineering (APMSE) “Class Desk” for a program, or the Assistant Program Manager (APME) "Chief Engineer" for a Program Manager Air (PMA), leads all engineering efforts for the assigned program using Systems Engineering principles. Systems Engineering process structure and discipline transforms operational requirements and constraints into operationally effective and suitable systems. Systems Engineering provides input into the Risk Management Process (see Chapter XIV, Part F), and is the major connection between the technical efforts and the overall acquisition effort. Systems Engineering is a continuous process that spans all phases of the life-cycle of a system. Tools to assist with Systems Engineering, such as architecture, requirements development/management, checklist, risk management, etc., are available via the Naval Systems Engineering Resource Center (NSERC) web site at: <https://nserc.nswc.navy.mil>.

14.10.B. The practice of Systems Engineering is composed of 16 processes: eight technical processes and eight technical management processes as listed in Figure 1 below and described in DAG section 4.3. *Systems Engineering Processes*. These 16 processes provide a structured approach to increasing the technical maturity of a system and increasing the likelihood that the capability being developed balances mission performance with cost, schedule, risk, and design constraints. The eight technical management processes are implemented across the acquisition life cycle and provide insight and control to assist the Program Manager and Systems Engineer to meet performance, schedule,

and cost goals. The eight technical processes closely align with the acquisition life-cycle phases and include the top-down design processes and bottom-up realization processes that support transformation of operational needs into operational capabilities.

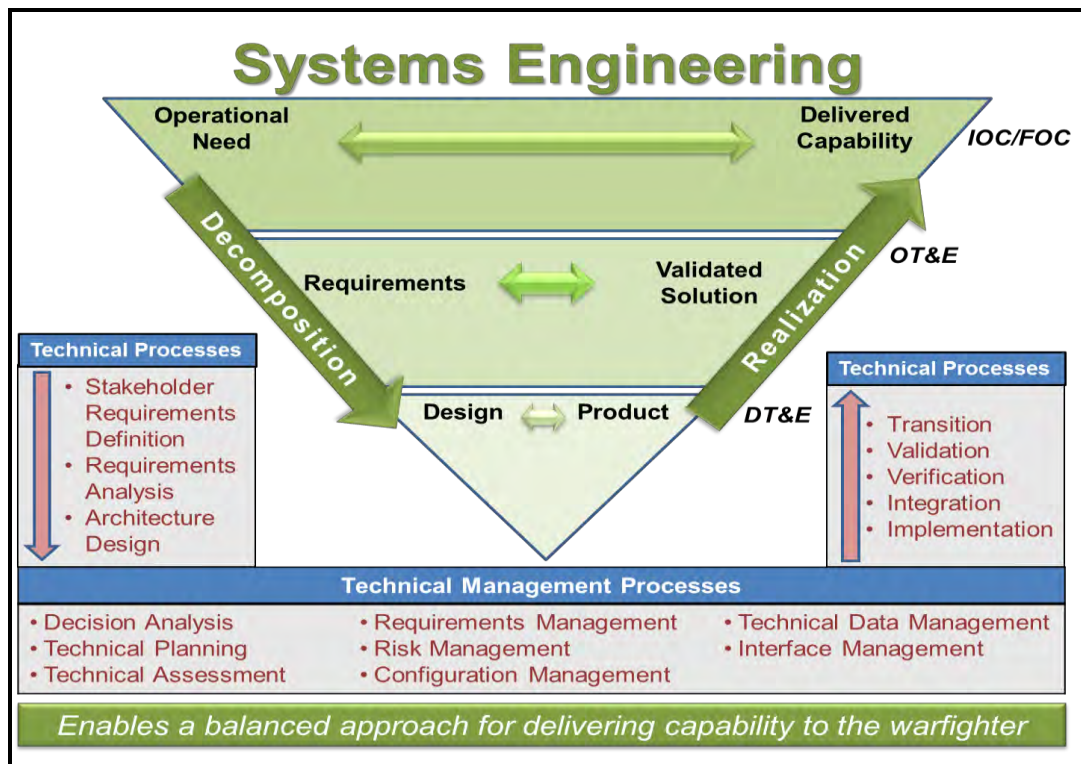


Figure 1. Systems Engineering

14.10.C. The impact of all requirements and design decision across the integrated life-cycle is necessary to ensure that the design solution is viable (e.g., affordable and supportable) throughout the life of the system. This 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. Additionally, the impact of design decisions on future operation and sustainment costs may be considered.

14.10.D. In summary, Systems Engineer is an inter-disciplinary engineering 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 an effective SE process in place, and to utilize the process during execution of the program.

14.11. POCs: Jennifer Young, APEO Engineering, AIR-1.0 Programs, (301) 757-4463

## CHAPTER XIV: ENGINEERING DISCIPLINES

### PART C: INTEGRATED BASELINE REVIEWS

14.12. Purpose. The purpose of the Integrated Baseline Review (IBR) is to achieve an understanding of the project risks associated with the Performance Measurement Baseline (PMB) the contractor is executing. Properly executed, IBRs are an essential element of a Program Manager's risk management approach.

14.13. Source Documents: Department of Defense Instruction 5000.02, Defense Acquisition Guidebook (specifically section paragraphs 11.3.1.3, 4.3.2.4.2, and 4.3.3.4.1), SECNAVINST 5000.E (Paragraphs 1.5.4.6, 1.11.4.3.1.2 and Annex 1-A), NAVAIRINST 4355.19E (subj: Systems Engineering Technical Review Process) and NAVAIR SETR Process Handbook.

14.14. Discussion. Effective program cost and schedule management depends upon establishment of reliable contractor cost, schedule, and technical baselines. In accordance with the above references, program managers and their technical staffs of Integrated Program (or Product) Teams (IPTs) are required to review contractor planning baselines either prior to or within six months after contract award (depending on the Defense Federal Acquisition Regulation (DFAR) clause used in the solicitation and/or contract). The process should be employed throughout the life of the project to maintain continuing the PM's understanding of program risks. This review is required for contracts requiring compliance with the Earned Value Management System (EVMS) Guidelines. (Electronic Industries Alliance (EIA)-748-current version). Also, the IBR is an AIR-4.2 Best Practice and has been identified by the NAVAIR Commander as mandatory.

The objectives of the IBR Process are as follows:

- a. Confirm the PMB captures the entire technical scope of authorized work.
- b. The authorized work is logically scheduled to meet the program objectives and risks to meeting planned milestones are understood.
- c. The PMB risks (budget, technical, resources, schedule, management processes) are identified and quantified.
- 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.

The IBR Process consists of five events: 1) Joint Government/Prime Management Systems Training, 2) Prime Management Systems Assessment, 3) Subcontractor IBRs, 4) Schedule Risk Assessment (SRA), and 5) Total Contract IBR. These events are described below:

- 1) Joint Management Systems Training. Prior to the end of the first full accounting period after contract award, the contractor hosts and facilitates a joint Government/Prime training session on the contractor's management control systems. The purpose of this training is to set management expectations early and get a solid plan prior to technical immersion. This training is usually conducted in conjunction with the Post Award Conference, however, this training may not be necessary for IBR teams familiar with the contractors internal processes based on previous program experience.
- 2) Prime Management Systems Assessment (MSA). Conducted within 60 - 90 calendar days after contract award. The primary goal is early identification of management risk areas, so they can be corrected prior to the Total Contract IBR. The contractor demonstrates that, adequate management processes are being employed, adequate resources assigned, and effective Earned Value (EV) methods are being used to accurately status contract cost, schedule, and technical performance.
- 3) Subcontractor IBRs. IBRs are conducted on subcontractors that report EVM data. The subcontractor IBR(s) are led by the Prime contractor with Government participation. All subcontractor IBRs should be conducted within 90 days of Subcontract Authority to Proceed.
- 4) Schedule Risk Assessment (SRA). The SRA shall be completed prior to the end of the fifth full month accounting period to identify and quantify milestone/event and task/activity level schedule risk. The SRA is conducted by AIR-4.2.3 with assistance from the various IPT competencies. The SRA is typically performed on the Program Critical Path, Near Critical Paths, and Driving Paths to selected critical milestones. A

schedule risk assessment predicts the probability of project completion by contractual dates. Three-point estimates are developed for remaining durations of remaining tasks/activities that meet any of the following criteria: (1) critical path tasks/activities, (2) near-critical path tasks/activities (as specified in the CDRL), and/or (3) high risk tasks/activities in the program's risk management plan. These estimates include the most likely, best case, and worst case durations which are then used to perform a probability analysis of key contract completion dates.

- 5) Total Contract IBR. Conducted no later than 180 calendar days after contract award. The Government will assess the contractor's PMB, including all awarded subcontracted effort, to be used for performance measurement to ensure complete coverage of the statement of work, logical scheduling of work activities, adequate resourcing, and identification of inherent risks.

Subsequent baseline reviews may be performed when any of the following occur: a) a significant contract option is exercised, b) incorporation of major modifications, c) incorporation of an Over Target Budget/Over Target Schedule, d) review of subsequent detail planning windows (often referred to as Rolling Wave or Block Planning) unavailable at the previous IBR event, e) in support of Estimate at Completion (EAC) site visits, or f) per government program manager discretion.

#### 14.15. Responsibilities

14.15.A. Program managers 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 reviewing progress on the actions until issues are resolved).

14.15.B. The NAVAIR Cost Department (AIR-4.2) is responsible for facilitating the IBR process and the development/maintenance of IBR guidelines and processes. AIR-4.2 personnel support includes: providing IBR Training, preparing IBR team documents such as the IBR Team Handbook, and ensuring IBR findings are tracked and closed out.

14.15.C. Procuring Contracting Officers will ensure that contractors are informed, in appropriate Request for Proposal (RFP) language, of the Government's intent to conduct either pre-award or post-award IBRs. (Contractual authority for conducting IBRs may 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 if a pre-award IBR is not required. 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.

14.15.D. Upon completion, the results of the IBR need to be understood and documented in the risk management processes. The Government and Contractor PMs should agree on a plan of action and who is responsible for the action for each risk item identified.

14.15.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.

14.16. POC: Reginald Goodman, AIR-4.2.3, (301) 342-2455

## CHAPTER XIV: ENGINEERING DISCIPLINES

### PART D: MANUFACTURING & QUALITY ENGINEERING

14.17. Purpose. This section addresses the implementation of Manufacturing & Quality (M&Q) Engineering in the acquisition process. M&Q includes design producibility, manufacturing planning, quality assurance/engineering, manufacturing readiness levels (MRLs) and manufacturing readiness assessments (MRAs), supply chain management (SCM), and critical safety item and critical item management (CSI/CIM).

#### 14.18. Discussion

14.18.A. AIR-4.1.9 personnel provide M&Q support and expertise to their assigned Integrated Program (Product) Teams (IPTs). M&Q requirements will be tailored from FAR sections 46 and 52, DoD Series 5000.1/2, DoD 4245.7-M, NAVSO P-6071, and extensive lessons-learned. M&Q requirements will typically be placed in the performance specifications, Statement of Work (SOW), equipment specifications, and contract data requirements list. Acquisition plans will reflect consistency with the contract and Navy policy embodied in SECNAVINST 5000.2E. NAVAIRINST 4355.19D (subj: Systems Engineering Technical Review Process; dated 17 April 2009) 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.

14.18.B. AIR-4.1.9 support is enlisted for all program phases, well before contract award, in order to influence acquisition planning and to ensure that manufacturing, producibility, production scheduling, and quality are appropriately considered in RFPs. AIR-4.1.9 personnel should participate in source selections and pre/post-award surveys. The M&Q competency's basic functions are to emphasize producibility and influence design decisions accordingly; assess the design, associated manufacturing processes, and all aspects of manufacturing capability, capacity, and readiness; mitigate production transition risk through evaluating design and manufacturing alternatives in light of program affordability, manufacturing efficiency, and quality objectives; and identify and resolve production and quality problems experienced in the field or manufacturing facility.

14.18.C. AIR-4.1.9 personnel actively work to identify, assess, and mitigate manufacturing and quality risks beginning early in development and continuing through production. This role is accomplished by participating in design reviews, schedule risk assessments, and program meetings; by reviewing contractor quality, producibility, and manufacturing plans, reports, and internal documents; by reviewing drawings; by leading M&Q -oriented reviews; and through liaison with the on-site Defense Contract Management Agency (DCMA) representatives. M&Q competency areas include:

- ◆ Design Producibility, including integrated product and process development; design for manufacturing/assembly; definition and control of key characteristics; 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, lean/agile systems, SCM, and manufacturing readiness assessment throughout the acquisition life cycle.
- ◆ Quality, including the development and implementation of the quality system, process control, variability reduction, foreign material exclusion, workmanship, nonconformance prevention, and effective root cause analysis and corrective action when nonconformances do occur.
- ◆ CIM (Critical Item Management), including the development and implementation of processes, guidance, handbooks, and instructions related to Critical Application Items and Critical Safety items, with the goal of mitigating the risk that a non-conforming critical part will be installed on an aircraft or other aviation equipment and fail in service with adverse effects on safety and/or operational effectiveness.

- ◆ SCM (Supply Chain Management), including the development and implementation of processes enabling enhanced visibility into manufacturing & quality controls from the prime contractor through lower tier suppliers in the acquisition of Naval Aviation aircraft and weapon systems, and coordination with other parties involved in other aspects related to acquisition Supply Chain Management, to mitigate programmatic production, technical, and schedule risk. Encompassed within this is involvement in acquisition related DoD-wide anti-counterfeit-component developments.
- ◆ Anti-counterfeit efforts, including assisting programs in the development and implementation of a counterfeit prevention program to detect, track, and report suspect counterfeit material, and to mitigate the risk of counterfeit material getting into the DoD supply chain.

14.19. POC: Barry Barefoot, AIR-4.1.9, (301) 995-2963

# CHAPTER XIV: ENGINEERING DISCIPLINES

## PART E: SYSTEMS ENGINEERING TECHNICAL REVIEWS

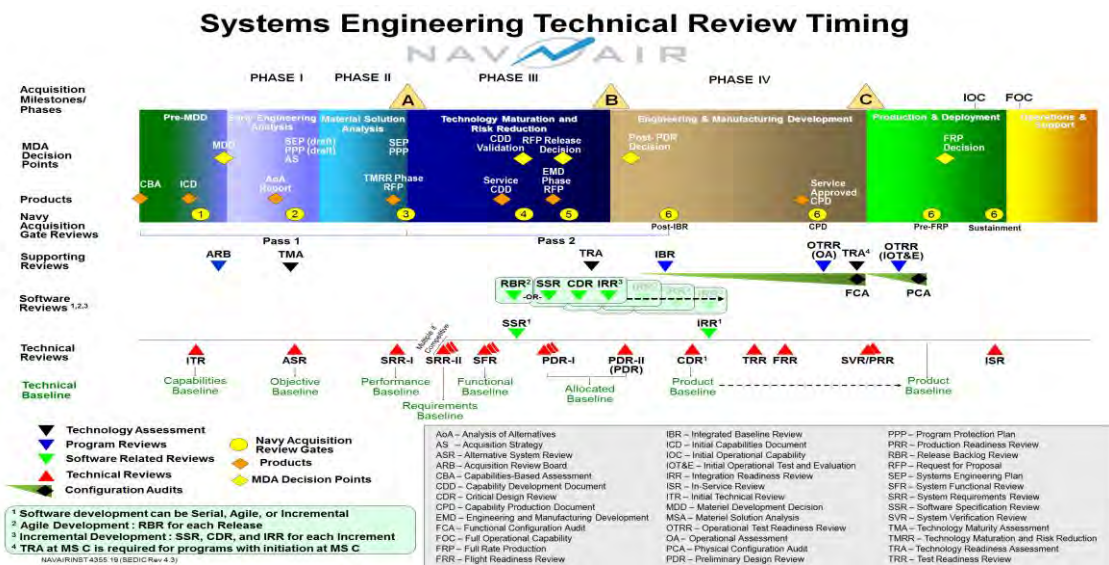
14.20. Purpose. Systems Engineering Technical Reviews (SETR) are an integral part of the Systems Engineering (SE) process. The SETR reviews are designed to enable an independent assessment of the emerging design against the overall objectives. SETRs promote a well-managed development effort leading to a system that meets programmatic constraints while providing the system performance required supporting mission needs. SETR reviews are a key tool to provide Program Managers (PMs) periodic independent assessments of completeness, maturity and risk related to the system under development.

### 14.21. Source Documents:

1. NAVAIRINST 4355.19E, Systems Engineering Technical Review Process, 06 Feb 15
2. SETR Process Handbook v1.0, 06 Feb 15
3. Naval Systems Engineering Resource Center (NSERC) <https://nserc.nswc.navy.mil>
4. Integrated Systems Engineering Environment (ISEE) SETR Manager tool <https://esgfusion.nswc.navy.mil/setrmgr/>
5. Naval Systems Engineering Guide, Oct 04

### 14.22. Discussion

14.22.A. NAVAIRINST 4355.19E establishes the policy, outlines the process, and assigns responsibilities for the conduct of Systems Engineering Technical Reviews (SETRs; see figure below) on NAVAIR programs. As a part of the overall SE process, technical reviews enable an integrated assessment of the system under development against plans and at key knowledge points in the development process. Engineering rigor, interdisciplinary communications, and competency insight, are applied to the maturing design in the assessment of completeness, maturity and risk. The SETR process is tailorable in scope such that it can be "right-sized" and effectively applied to a major weapons system or to a subsystem – major ACAT programs to smaller non-ACAT programs such as Abbreviated Acquisition Programs (AAPs). Each SETR review/audit provides the PM with an assessment of program completeness, maturity, and risk. The SETR events and audits and related tailoring are documented and approved via the program SEP. Smaller programs that may not have a program SEP, are not exempt from the policy of conducting SETR events. The SEP should also identify the technical elements to conduct each SETR event and the methodology to be used for assessing the entrance criteria specified by the SETR instruction.



Systems Engineering Technical Reviews -- Shown in Chronological Order



14.22.B. SETR events and audits are independent reviews that are conducted by a Technical Review Board (TRB) Chair and a TRB comprised of senior technical and programmatic Subject Matter Experts (SMEs)/Technical Area Experts (TAEs) from competencies relevant to the particular program. SETR reviews are meant to assess completeness, maturity and risk related to the system in development. Active collaboration with competency SMEs throughout the phases of development is expected to bring forth all technical and programmatic risks and issues on an ongoing basis. SETR reviews should be event-driven and conducted when the system under development meets the tailored review entrance criteria, as documented in the program's SEP and as assessed by the respective SETR Checklist. The "go/no-go" decision regarding whether to conduct the SETR review ultimately resides with the TRB Chair. The Lead Systems Engineer is responsible for establishing and maintaining effective and open technical communication to assist the TRB Chair in making informed decisions.

14.22.C. As part of the SETR planning, the Systems Engineer tailors the application of SETR processes for programs in coordination with the cognizant Assistant Program Executive Officer –Engineering [APEO(E)]. Process tailoring provides an opportunity to optimize program execution in the context of cost, schedule and performance. This is particularly important to programs that are smaller, less complex and with less risk. Such programs often include AAPs and other non-ACAT programs including rapid development, Commercial Off-the-Shelf (COTS), or technology insertion acquisitions. Tailoring allows for adjustment of the number of reviews, amount of formal documentation and focuses the process on risk areas that are more critical to program success. Tailoring is not an invitation to simply skip steps or to eliminate the process. As such, a program risk assessment is useful in gaining an understanding of related risk, complexity and number of program unknowns. Programs with greater risk and complexity are candidates for more rigorous application of the SETR process. Tailoring takes the form of deletion (removal of reviews and elements not applicable), alteration (modifying and combining reviews and elements to more explicitly reflect the application to a particular effort) or addition (adding reviews and elements to satisfy program requirements). Tailoring shall be performed in breadth and depth of SETR process as applied to any particular program. Tailoring in breadth defines the number and type of SETR events and audits. Tailoring in depth defines the activity and elements associated with individual SETR or audit events, frequently accomplished by tailoring the SETR checklist and tailoring the substantiating evidence required to demonstrate design maturity and contractual compliance. SETR tailoring, to include SETR and audit events with entry criteria and required documentation should be outlined in the program SEP per DODI 5000.02. SETR tailoring updates should be included in the SEP updates. Additional information concerning implementation of NAVAIRINST 4355.19E 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 type of review. These documents are accessible via the NAVAIR NSERC website at: <https://nserc.nswc.navy.mil>.

14.22.D. PMs 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.

14.23. POC: Jennifer Young, APEO Engineering, AIR-1.0 Programs, (301) 757-4463

## CHAPTER XIV: ENGINEERING DISCIPLINES

### PART F: RISK MANAGEMENT

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

14.25. Source Documents:

1. NAVAIRINST 5000.21B, Program/Project Risk Management, of 24 Jan 08
2. DoD Directive 5000.01 of 12 May 2003
3. DoD Instruction 5000.02 of 07 Jan 15
4. DoD Risk Management Guide, 7<sup>th</sup> Edition (Dec 14)
5. NAVAIR Risk Management Handbook

14.26. Definitions

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

**Risk Management (RM)** is the overarching process that encompasses identification, analysis, mitigation planning, mitigation plan implementation, and tracking of program risks. RM is the primary method of mitigating program uncertainties and is therefore critical to achieving cost, schedule, and performance goals at every stage of the life cycle. RM is the process by which an IPT/PMA 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. Effectively managing risks helps the PM and Systems Engineer develop and maintain program execution within cost and schedule constraints. Technical risk management, and associated mitigation plans, should be quantified, resourced, and reflected in the Integrated Master Schedule (IMS) and Integrated Master Plan (IMP). The PM should also work with the applicable science and technology communities and Component acquisition leadership to influence technology investment planning. The goal is to both mitigate risks and create opportunities for technology development outcomes that could have a positive impact on meeting program baselines. Program risks, and opportunities as applicable, will be considered at technical reviews and will include specific cost and schedule implications.

**Issues versus Risks:** Risk Assessments are not to be confused with program performance assessments. If a risk is described in the past tense, then the risk has already been realized, in which case it has become an issue. Issue management is focused toward mitigating current effects/impacts of a negative event that has happened, while risk management seeks to prevent/mitigate future effects by preventing/mitigating the occurrence of a negative event. However, in both cases, preventive/corrective actions must address root causes and not just symptoms. 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. Because risk management prevents/minimizes the occurrence of the negative event before it occurs, it is inherently a much more powerful tool than issue management.

14.27. Discussion

14.27.A. Risk Management is basically comprised of five process activities:

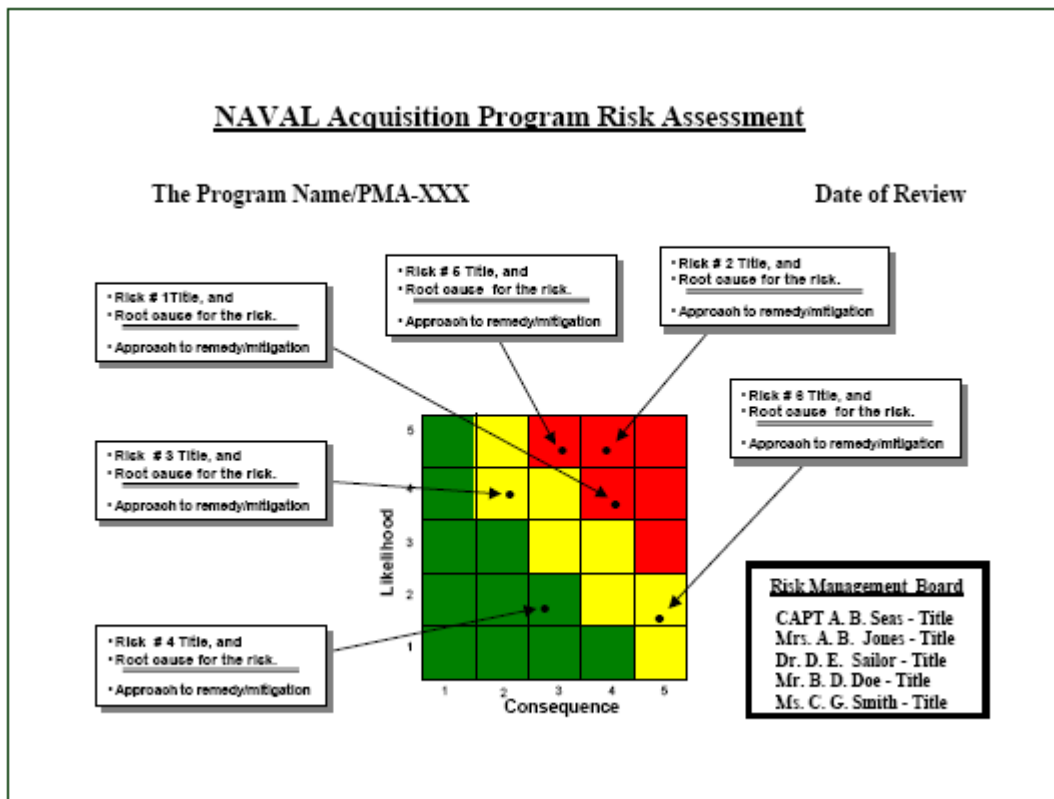
- i. Risk Identification – What can go wrong? What is the root cause?
- ii. Risk Analysis -- How big is the risk? What is the probability of occurrence? What is the consequence of occurrence?
- iii. Risk Mitigation Planning – What is the program approach (cost, schedule, and technical) for addressing this potential root cause or unfavorable consequence? (e.g., how can the risk probability and/or consequence be reduced?)
- iv. Mitigation Plan Implementation – How can the planned risk mitigation be implemented? How do we ensure successful risk mitigation occurs?

- v. Risk Tracking – How are risk mitigation plans progressing? Are actions being funded and completed? Is the probability and/or consequence of occurrence being reduced/eliminated?

14.27.B. 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. Risks are also independently reviewed at SETR reviews/audits.

14.27.C. NAVAIR risk reporting shall present standard likelihood and consequence screening criteria, as well as the standard risk matrix (see figure below). 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 risk position on the risk matrix will migrate in successive assessments from its current location toward the green. Each risk description should include the following key elements:

- i. a brief description of the risk,
- ii. a brief description of the root causal factor(s) for the risk,
- iii. the proposed/planned mitigations that address the risk source(s) and effect(s), and
- iv. the contribution to risk reduction from each mitigation step.



Sample Program Risk Assessment -- from NAVAIR Risk Mgmt Guide

14.27.D. The NAVAIRINST 5000.21B and other resources listed above are supplemental publications that provide guidance and procedures for conducting program risk assessments. The DoD Risk Guide is an excellent source document and has driven updates to NAVAIR's RM directives. Additionally, web-based risk tools are available via the Naval Systems Engineering Resource Center (NSERC) website at <https://nserc.navy.mil/>.

14.28. POCs: Jennifer Young, APEO Engineering, AIR-1.0 Programs, (301) 757-4463

## **CHAPTER XIV: ENGINEERING DISCIPLINES**

### **PART G: SOFTWARE INTENSIVE SYSTEM (SIS) ACQUISITION AND PROGRAM MANAGEMENT**

14.29. Successful development and acquisition of software is vital for acquiring naval warfighting and business systems. Software intensive systems are inherent in today's complex systems and are often the primary cost, schedule, and performance drivers in naval programs. The Assistant Secretary of the Navy (Research, Development and Acquisition) (ASN (RD&A)) developed a guidebook to provide a uniform framework for software improvement processes to assist Department of the Navy (DON) acquisition teams through all phases of software acquisition.

14.30. The Guidebook for Acquisition of Naval Software Intensive Systems is intended to provide support for the entire acquisition team by consolidating in one place background information, enterprise-wide policy, guidelines, proven alternatives, access to additional subject matter expertise, and amplifying detail for key software acquisition activities. It includes:

14.31. General information concerning DON and Department of Defense (DoD) software acquisition consideration at various stages of software acquisition planning: pre-solicitation, solicitation, source selection, and contract execution; amplifying guidance for ASN (RD&A) policy regarding software process improvement; assistance with implementation of mandated metrics; and assistance with understanding and implementation of the Institute of Electrical and Electronic Engineers (IEEE) Standard 12207.

14.32. The Guidebook is located at:

<http://www.secnav.navy.mil/rda/OneSource/Documents/Program%20Assistance%20and%20Tools/Handbooks,%20Guides%20and%20Reports/Page%205/guidebookforacquisitionofnavalssoftwareintensivesystemssep08.pdf>.

## CHAPTER XIV: ENGINEERING DISCIPLINES

### PART H: SHIPS' C5I SYSTEMS MODERNIZATION PLAN (C5IMP)

#### 14.33. Purpose

14.33.A. This section is intended to help acquisition managers understand the Fleet Commanders' (FLTCOM) process for Ship Alterations (SHIPALT) installations management called the "C5I Modernization Plan" (C5IMP). The applicable "C5I" systems include Command and Control Communications, Computer systems and software, ships' Combat and Intelligence Systems, and systems which interoperate or have interfaces with them. The C5I Modernization Plan applies to new, upgraded, and existing NAVAIR systems that are installed in naval ships, and to certain aircraft systems. These installations may be C4I and/or ships' Combat Systems (C5I) hardware and/or software; software which uses ships' computer Local Area Networks (LAN) and communications systems for their transmission; and systems installed in aircraft which have interoperability with ships' Combat Systems. The C5IMP process is managed, among the acquisition community, by Naval Sea Systems Command (NAVSEA 05) as the FLTCOMs' agent.

14.33.B. The C5IMP process is the tool for obtaining the applicable Fleet Commander's approval to install a proposed C5I system's ship alteration (SHIPALT). Aspects of this process include scheduling C5I Ship Alteration (SHIPALT) installations to ensure they are planned for installation during a ship's Modernization Window. The C5IMP process also involves the assurance and Certification of Interoperability for C5I systems and other certifications (see paragraph 14.37.B). The process thus involves the joint Systems Commands (SYSCOM), Type Commanders (TYCOM) and Fleet Commanders (FLTCOM) in a mutual process.

14.33.C. C5IMP is related to the Navy Modernization Process (NMP), formerly called the SHIPMAIN process, as detailed in NAVSEA 04's Maintenance Operations Manual (MOM), in that NMP provides the authority for a hardware and/or software system to proceed into its installation phase based on both validation of its Operational Requirement, as well as a project's priority with respect to sufficiency of the naval budget (see section on NMP regarding "Figure of Merit" (FOM) and budgets). NMP is also referred to as the "Entitled Process", and its related document is the "Ship Change Document" (SCD).

#### 14.34. Source Documents:

- CINCLANTFLT NORFOLK VA//N00// 061415Z FEB 98 (Battle Group Combat Systems and C4ISR Disconnect)
- CNO WASHINGTON DC//N9// 021648Z MAY 98 (Battle Group Interoperability)
- CFFC/COMPACFLT INSTRUCTION 4720.3B (Management of Afloat Combat and C4I Systems)
- CINCLANTFLT/CINCPACFLT 251912Z MAY 00 (CPF/CLF 4720.3A, Adaptation to Forward Deployed Naval Forces (FDNF))
- 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 4720.4B (Commander United States Fleet Forces Commander (COMUSFLTFORCOM)/Commander United States Pacific Fleet (COMPACFLT) C5ISR Modernization Policy) N6 dtd 14 Oct 08
- NAVAIRINST 5230.20A (Naval Warfare Systems Certification Policy) dtd 24 Aug 12
- DCNO(N4) ltr 4000, Ser N4/3S575763 dtd 12 Mar 03
- CNO WASHINGTON DC 111709Z MAY 2003 (Fleet Response Plan (FRP))
- COMFLTFORCOM NORFOLK VA 032037Z MAY 2004 (C4I and Combat Systems Modernization Process (C5IMP) Policy)
- LANTFLT/PACFLT INST 4790.3 (Joint Fleet Maintenance Manual (Advance Change Notice 02-04) of 8 Dec 04)
- NAVSEA INST 9410.2 | NAVAIR INST 5230.20 | SPAWAR INST 5234.1, Naval Warfare Systems Certification Policy, 18 Jul 05

#### 14.35. Background

14.35.A In the past decade, the Fleet has seen a significant growth in interoperable ships' Combat Systems and C4I systems providing tactical networking capabilities. At the same time, this level of integration of previously-independent combat systems and their parent platforms has led to increased interoperability challenges that need to be addressed prior to actual installation of SHIPALTs and deployment of Strike Forces. As a result, CNO assigned Naval Sea Systems Command (NAVSEA) central responsibility to address Battle Management Command, Control, Communications, Computers, and Intelligence/Combat Systems (C4I/CS) interoperability 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 05H.

14.35.B. Initially, NAVSEA assisted Fleet Commanders 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 commenced 30 months prior to actual deployment. The Fleet Commanders published CINCLANTFLT/CINCPACFLT INST 4720.3A formalizing that process. Promulgation of the CNO's "Fleet Response Plan" (FRP) in 2003 made the D-30 process obsolete, because D-30 was Battle Group-centric and FRP is whole-Navy centric.

14.35.C. In early 2003, the CNO announced the Fleet Response Plan (FRP) as direction to the Fleet for the deployment and maintenance policy for Navy ships. FRP introduced a "Surge" policy for early or emergency deployment of ships to join any already-deployed Strike Group, which made the "D-30" process obsolete. The "C5I Modernization Plan" (C5IMP) was then introduced as the new process for C5I SHIPALT installations management.

14.35.D. In late 2003, an additional process, called "SHIPMAIN", was initiated. The objective of SHIPMAIN (now called the Navy Modernization Process (NMP)) is to provide a verification of system requirements and naval budget affordability for C5I systems prior to their installation. Successful results from the NMP process provide authority for subsequently scheduling SHIPALT installations using C5IMP.

14.34.E. Current processes involve the development of a ship alteration (SHIPALT) to effect installation of a system into a naval ship, and gaining approval for that installation, installation scheduling, and Configuration Management of the system via several process steps.

14.36. Overview. The "Afloat Master Planning System" (AMPS) was developed to assure Interoperability of C4I and ships' Combat Systems proposed for installation in naval ships prior to their being installed as a ship alteration (SHIPALT), and to provide an orderly process and procedures for the efficient implementation of ships' combat systems and C4I systems across the operational Navy Fleets. The primary intent of the process is to ensure combat deployers -- Carrier Strike Groups (CSG); Expeditionary Strike Groups (ESG) with embarked Marine Expeditionary Units (MEU); Pacific Fleet Middle East Force (PACMEF); Forward Deployed Naval Forces (FDNF); Mine Warfare Readiness Group (MIWRG); and other Fleet entities -- receive improved, certified warfighting technologies. The process currently applies to NAVAIR-produced systems that have ships' combat systems and/or interoperability considerations. This includes shipboard systems such as Air Traffic Control and Combat Identification (IFF); certain weapon systems such as Tomahawk; aircraft systems utilizing Tactical Data Links (TADIL); and systems that integrate on the IT-21 network, such as mission planning and various administrative, logistics and training systems.

#### 14.37. Key Aspects

14.38.A. C5IMP Process. The C5IMP process has as its objective obtaining approval for SHIPALT installations of C5I systems from the Fleet Commanders (FLTCOM). The process is based on several methods of obtaining FLTCOM approval for a C5I system SHIPALT, as follows:

- conducting meetings at which proposed SHIPALTs are presented to the FLTCOMs, called **the Naval Networks and FORCenet Enterprise (NNFE) Command and Control Communications, Computers, and Ships' Combat Systems (C5I) Modernization Conference (NMC) which consider alterations into all Navy ships that have Availability periods during the following calendar year.** Authorized installation periods are called the "Modernization Window" (MW). The list of all approved

SHIPALT installations, as well as completed installations, for a given ship is called that ship's C5I "baseline";

- writing a C5I "Risk Form" that is processed through the Electronic Configuration Control Board (eCCB), with eCCB members being from each SYSCOM, TYCOM, COMNAVCYBERFOR, and the applicable FLTCOM.

14.38.B. The basis for approval for a SHIPALT being listed in an approved C5I baseline is for a SHIPALT to have the following:

- SHIPALT approval by the applicable Ship Program Manager (PMS);
- Ship Change Document (SCD) approved under the SHIPMAIN process;
- Scheduling of the SHIPALT into the "Navy Data Environment—Navy Modernization" (NDE-NM) database to enable its consideration at the IBR/BRB meetings, and listing in the Afloat Master Planning System (AMPS) database;
- Approved Ship Installation Drawings (SID);
- Approved Integrated Logistics Support (ILS) Plan;
- Information Technology (IT) Certification and its related Approval to Operate (ATO);
- Weapons Systems Explosive Safety Review Board (WSESRB) approval, as applicable;
- Preferred Product List (PPL), System/Subsystem Interface List (SSIL), and Qualified Parts List (QPL) approval for use of ships' IT-21 Local Area Network (LAN), as applicable;
- Human/Systems Interface (HSI) approval;
- Combat Systems Interoperability Test (CSIT) approval, as applicable;
- Installation scheduled during the ship's Modernization Window (MW), or approval for installation outside the MW; and,
- Target Configuration Date (TCD) Waiver by the applicable FLTCOM.

14.39. Electronic Configuration Control Board (eCCB) Process. The applicable Fleet Commander must approve any changes to a ship's baseline configuration of systems after establishment of that baseline. The Fleet Commander's consideration of a change follows review by the Electronic Configuration Control Board (eCCB). eCCB membership consists of various stakeholders in the process, including NAVAIR's eCCB representative. PMs developing and/or upgrading C4I and combat systems must ensure that any change to these systems (hardware/software upgrade; cancellation of a previously planned upgrade; etc.) is submitted to the eCCB for approval. NAVAIR's eCCB representative to NAVSEA can assist in the submission of the required eCCB Risk Forms, and coordinate/advocate for approval.

14.40. Target Configuration Date (TCD) Waiver Process. The TCD is a date when all planned installations and the ILS Plan (especially crew training) in the ship are to be completed. No further upgrades to systems are allowed for the ship unless a waiver is requested and approved by the FLTCOM. The process to obtain a TCD Waiver is called a "TCD Offer". The Fleet Commander will approve TCD Offers after coordinating with applicable TYCOMs, the ship involved, and Strike Force Commander. Key decision factors are: increased value to warfighter; impact on training and testing; impact if installation does not occur; risk of all kinds; extent of upgrade; proposed installation date. Requests for waiver will be made via an "A-through-O" (A-O) formatted Risk Assessment message.

14.41. A-O Message. A "TCD Offer" (A-O message) is required to request either a non-standard system installation or any installation after TCD of software/hardware associated with C4I/Combat Systems. **CUSFFC/COMPACFLT INSTRUCTION 4720.3B** specifies the format for the A-O message. The PM must submit the message for approval directly to the applicable Fleet Commander. **FLTCOM policy for approval of a TCD Offer is based on if the proposed SHIPALT:**

- **Corrects a CASREP (original language was "significant deficiency");**
- **Provides significant C5I capability (originally called "Fleet capability");**
- **Corrects a safety issue.**

A "non-standard installation" is a SHIPALT that is temporary in that it will be removed, and original ship's configuration restored, after its usage. This is frequently the case for systems used in testing (DT/OT), demonstrations of new technology, and for Fleet exercises. NAVAIR's representative to NAVSEA 05H can coordinate and assist in the preparation and submission of the A-O message.

14.42. Action Item Process. Throughout the C5IMP process, “action items” for NAVAIR are received from outside Commands. The actions may be to: resolve configurations of systems; resolution of problems identified in testing (BFIT, DGSIT); responses to A-O messages; solving problems encountered during installations in shipyards; etc. NAVAIR’s representative to NAVSEA 62 is often the focal point for C5IMP action items, if not sent directly to a NAVAIR project manager.

14.43. Certifications. System-level Certifications are normally obtained as part of the acquisition process. Certain Certifications apply specifically to C4I/Combat Systems:

- IT-21 Compatibility. Fleet Commanders have defined a policy and established 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.
- NCTSI. The Navy Center for Tactical Systems Interoperability (NCTSI) is assigned as the Chief of Naval Operations (CNO) representative responsible for certifying interoperability of U.S. Navy tactical data systems used in Fleet operations, or in support of Joint or Allied operations. Following successful completion of NCTSI certification, all U.S. 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 VII Part C, “Interoperability” of this Guide.

14.44. Combat Systems Interoperability Test (CSIT). One of the deliverables that NAVSEA 05H is responsible for to the Fleet Commanders and Strike Group Commanders is a “certification” that the new C5I systems being installed in ships, and delivered to the Fleet for operational use, are both operable and interoperable. The resulting decision is called the Warfare Systems Certification Decision (WSCD). The Joint Systems Command Instruction, NAVSEAINST 9410.2 | NAVAIRINST 5230.20 | SPAWARINST 5234.1, Naval Warfare Systems Certification Policy, 18 Jul 05, governs this process. CSIT is a test for Interoperability of all systems’ software proposed for installation in a given ship, or a group of ships with the same systems’ configuration. Prior to installation of software with multi-systems interface, it must have successfully passed the CSIT test applicable to that ship. Weapons Systems Integration and Interoperability Testing (WSI2T) is conducted interconnecting the systems integration laboratories of the applicable combat systems’ Software Support Activities (SSA) and exercising the software and hardware in operational scenarios. This consortium use of the labs is known as the Distributed Engineering Plant (DEP). Meetings regarding readiness to commence WSI2T testing, and meetings held after testing that support the PCD decision are:

- Final Certification Readiness Review (FCRR): Meeting held prior to commencing WSI2T testing, with the expectation that systems and software are ready to commence testing. Any delay at this time may eventually affect the systems being ready for installation at commencement of the ship(s) Modernization Window (Availability). The decision at the FCRR meeting is to commence WSI2T testing on schedule.
- Warfare Systems Installation Assessment (WSIA): After WSI2T testing is completed, and resulting Trouble Reports have been analyzed for operational impacts of risk of occurrence and their severity, a meeting is held to discuss those testing results. The decision at the WSIA meeting is whether to actually commence installation of the systems’ ship alterations (SHIPALT) during the ship’s Modernization Window (Availability).
- Warfare Systems Certification Decision (WSCD): After ship installations are completed and systems have undergone their Systems Operational Verification Tests (SOVT), and the ship has undergone her Sea Trials following her Availability, a meeting is held to discuss results of those completed installations and testing. The resulting decision at the WSCD meeting is SEA 05H’s “certification” that the new ship’s combat systems are both operable and interoperable. The resulting naval message stating that certification for the applicable systems is one of the deliverables that is the responsibility of SEA 05H to the Fleet Commanders, Strike Group Commanders, and the applicable ships’ Commanding Officers.

14.45. Capabilities and Limitations (CAPS&LIMS) Document. The other deliverable that is the responsibility of SEA 05H is the Capabilities and Limitations Document for the applicable systems that compose the newly installed system upgrades in ships. This document is a result of operational analysis based on systems descriptions and demonstrated capabilities during the previously held testing events. SEA 05W delivers this document to the Fleet Commanders, Strike Group Commanders, and the applicable ships’ Commanding Officers so they will know the upgraded combat systems capabilities of their ships.



14.46. Deploying Group System Integration Test (DGSIT). DGSIT is a Fleet Commander-directed process designed to provide a comprehensive validation of “total force system” performance prior to overseas deployment of a Strike Group (CSG or ESG). This involves not only systems operability and interoperability, but also validates that ships’ crews received sufficient training to enable them to satisfactorily operate the ships’ C4I and Combat Systems. PM involvement in DGSIT involves providing Subject Matter Experts (SME) to ships during conduct of the tests, and coordination in the resolution of reported issues. Issues are reported by the Fleet Commander’s DGSIT office via naval message.

14.47. Information on the WEB: <https://www.nde.navy.mil/> (for C5IMP, NDE-NM, Ship Change Documents, and AMPS)

14.48. POC: Andrew P. Miller, AIR-4.1.5, (301) 757-3252/(cell) (301) 481-7019

## **CHAPTER XIV: ENGINEERING DISCIPLINES**

### **PART I: SOFTWARE DATA RIGHTS AND SOURCE CODE**

14.49. It's important to determine and obtain the appropriate data rights and source code to use and maintain government-acquired software during its life cycle.

14.50. Under Intellectual Property (IP) laws, contractors are permitted to retain ownership of the software that they develop or deliver under DoD contracts; DoD receives only a license to use the software. DoD policy is to require delivery of only the license rights and software necessary to satisfy agency needs. This requires planning in advance for which pieces of software will require sustainment, and which organization(s) will perform that sustainment:

- The contractor which developed of the software
- The DoD agency acquiring the software
- A third-party contractor(s)

14.51. It's critical that these data rights licensing and source code delivery arrangements be worked out prior to awarding the Engineering and Manufacturing Development (EMD) contract. Afterward, it can be prohibitively expensive or impossible to acquire the data rights and source code because the developer naturally uses its control of these items to obtain the software sustainment work.

14.52. Additional information on Software Data Rights can be found in Standard Work Package (SWP) 4940-027 in the AIR 4.0 SWP Sharepoint site: <https://myteam.navair.navy.mil/air/40swp/SitePages/home.aspx>

## CHAPTER XIV: ENGINEERING DISCIPLINES

### PART J: TECHNOLOGY/PROGRAM PROTECTION

#### 14.53. Source Documents.

- a. DoDI 5200.39, “Critical Program Information (CPI) Protection within the Department of Defense (DoD),” 16 Jul 08, Incorporating Change 1, 28 Dec 10
- b. DoDI 5000.02, “Operation of the Defense Acquisition System,” 7 Jan 15
- c. SECNAVINST 5000.2E, “Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integrating and Development System,” 1 Sep 11
- d. Principal Deputy Under Secretary of Defense Memorandum, “Document Streamlining – Program Protection Plan,” 18 Jul 11
- e. DASN RDT&E Memo, “Department of the Navy (DoN) Implementation of Program Protection Plan,” 9 Feb 12
- f. ASN (RD&A) Memo, “Required Use of Standardized Process for identification of Critical Program Information in DoN Acquisition Programs,” 20 Feb 08
- g. DoDI 5200.44, “Protection of Mission Critical Functions to Achieve Trusted Systems and Networks,” 5 Nov 12
- h. USD(AT&L) Memo, “Horizontal Protection of DoD Critical Program Information,” 22 Jul 10
- i. DoD “Trusted Systems and Networks (TSN) Analysis,” Jun 14
- j. DoDI O-5240.24, “Counterintelligence (CI) Activities Supporting RDA,” 8 Jun 11, Incorporating CH-1, 15 Oct 13
- k. DoDI 8510.01, “Risk Management Framework,” 12 Mar 14
- l. Department of the Navy Anti-Tamper Desk Reference, Current Version
- m. Naval Air Systems Command Ownership Transfer for Critical Program Information Identification, 20 Mar 14
- n. Defense Acquisition Guidebook, current version
- o. DoDI 4140.01 “DoD Supply Chain Materiel Management Policy”, 14 Dec 11
- p. DoDM 4140.01, “Volume 1, DoD Supply Chain Material Management Procedures: Operational Requirements”, 10 Feb 14
- q. DODI 4140.67, “DoD Counterfeit Prevention Policy”, 26 Apr 13
- r. DoDM 4140.01-V3, “DoD Supply Chain Materiel Management Procedures: Materiel Sourcing”, 10 Feb 14
- s. DoDM 4140.01-V6, “DoD Supply Chain Materiel Management Procedures: Materiel Returns, Retention, and Disposition”, 10 Feb 14
- t. SECNAVINST 4140.2, “Management of Aviation Critical Safety Items”, 25 Jan 06
- u. NAVAIRINST 4200.56, “Critical Item Management”, 24 Apr 13
- v. Deputy Assistant Secretary of Defense for Systems Engineering and Department of Defense Chief Information Officer, “Software Assurance Countermeasures for Program Protection Planning”, Mar 14
- w. Office of Assistant Secretary of Defense (NII) – Chief Information Officer/Office Deputy Assistant Secretary Defense (CIIA), “Key Practices and Implementation Guide for Supply Chain Risk Management Pilot Program”, 25 Feb 10
- x. Deputy Assistant Secretary of Defense for Systems Engineering, “Program Protection Plan Evaluation Criteria”, Version 1.1, Feb 14

14.54. Purpose and Scope. Technology and Program Protection is the multi-discipline integrated process for managing risks to advanced technology (Critical Program Information) and mission-critical system functions and components (MCC) to maintain system integrity throughout the acquisition lifecycle.

Traditional security countermeasures (i.e. Information, Physical, Personnel, Industrial, Operation, Communication, Foreign Disclosure, Training) and Software Assurance, Transportation Management, Dial-down Functionality, Anti-tamper, CyberSecurity/Information Assurance/Network Security, Supply Chain Risk Management, Counterintelligence methodologies and System Security Engineering will be used to mitigate risk and to deny foreign intelligence collection efforts and prevent unauthorized disclosure of Critical Program Information (CPI), prevent the insertion of malicious codes and counterfeits of NAVAIR Research, Development and Acquisitions (RDA).

The protection of NAVAIR CPI and mission critical functions and components are critical to maintaining the U.S. Warfighter advantage on both current and future battlefields. Per references (a) through (v), Program/Project Managers (PMs), under the supervision of Program Executive Officer and Component Acquisition Executives, shall ensure all RDAs are evaluated for CPI and MCC, acquire threat reports, develop countermeasures, develop and acquire Milestone Decision Authority approval of a Program Protection Plan (PPP). The following are examples of RDAs: ACAT I-IVs, Abbreviated Acquisition Programs, Technology Spirals, Rapid Deployments, formal Engineering Change Proposals (which add new advanced capabilities), and Small Business Innovation Research efforts when transferred to a PMA, competency, or AD/WD/TSD code.

(1) Reference (f) mandates Department of Navy (DoN) Program/Project Managers (PM) use a standard CPI identification tool and process to identify CPI.

(2) Reference (b) and (d) mandate Heads of Components shall conduct a Criticality Analysis (CA) which includes identification of MCC, acquiring vendor/supplier threats, vulnerability assessment and countermeasures selection for those RDAs which meet the definition of an applicable system per reference (d). Reference (i) shall be used as a guide to conduct the CA.

(3) References (d) and (e) mandate a PPP for documenting the identified CPI and/or MCC identified for the RDA.

(4) When CPI and/or MCC do not exist, the PM documents the results in a tailored PPP, which will be provided by AIR 7.4.3 Technology & Program Protection Division Head.

(5) Reference (n) provides Department of Defense (DoD) best practices and can be used to support program protection.

(6) Reference (x) shall be used to evaluate all PPP's developed in accordance with reference (d) for all Milestones and at Full-Rate Production.

(7) Figure 1, is the Department of Navy PPP Concurrence & Approval Authorities per reference (e).

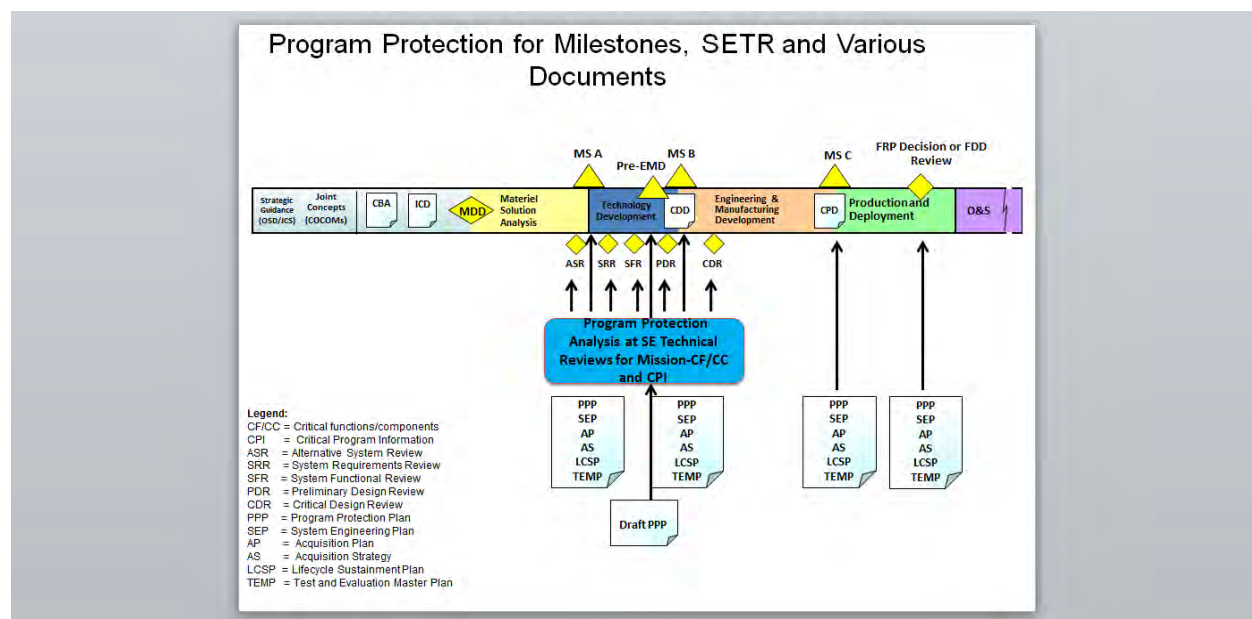
**Figure 1, PPP Concurrence & Approval Authority**

| <b>Program Protection Plan Concurrence &amp; Approval Authority</b>                |                              |                                 |   |                             |                           |
|--|------------------------------|---------------------------------|---|-----------------------------|---------------------------|
|  | <b>SYSCOM<br/>RTP Office</b> | <b>Program<br/>Manager (PM)</b> | <b>Program<br/>Executive<br/>Officer (PEO)<br/>Equivalent</b> | <b>DASN<br/>(RDT&amp;E)</b> | <b>USD<br/>(AT&amp;L)</b> |
| ACAT ID/Special Interest   | C                            | C                               | C   | C                           | A                         |
| ACAT IAM   | C                            | C                               | C   | C                           | A                         |
| ACAT IC  | C                            | C                               | C   | A                           | N/A                       |
| ACAT II  | C                            | C                               | A   | N/A                         | N/A                       |
| ACAT III   | C                            | C                               | A   | N/A                         | N/A                       |
| ACAT IV  | C                            | C                               | A   | N/A                         | N/A                       |
| Abbreviated Acquisition Program (AAP)  | C                            | C                               | A   | N/A                         | N/A                       |
| Non-ACAT or ACAT Programs with no CPI and no Mission-Critical Functions/Components | C                            | A                               | N/A   | N/A                         | N/A                       |

A-Approval  
C-Concurrence  
N/A-Not Applicable

(8) Figure 2, provides Program Protection Activities for Life-Cycle Milestones and System Engineering Technical Reviews (SETR).

**Figure 2, Program Protection Activities**



**14.55. Responsibilities.**

14.55.A. *Program Executive Officers*, in accordance with references (a – e), Figure 1 and Figure 2, shall:

- a. Endorse ACAT I D and IC PPPs as a “Concurrence”;
- b. Endorse the ACAT ID and IC PPPs at Milestone A, B, C and Full Rate-Production; and,
- c. Endorse the ACAT II-IVs as “Approver” if the PM has not been delegated signature authority.

14.55.B. *NAVAIR National Program/Project Managers (PM)*, in accordance with references (a – l), Figure 1 and 2, and Table 1 shall:

- a. Ensure their respective RDAs are assessed for CPI and MCC, countermeasures are selected and implemented, and a PPP is approved 2;
- b. Endorse ACAT ID and IC, II-IV PPPs as the “Submitted By” or if delegated by the PEO, endorse ACAT II-IVs as the “Approver”, and non-ACATs as the “Approver”; and,
- c. Identify a Program Protection Lead; who will coordinate all program protection activities.

14.55.C. *Program Protection Lead (i.e. Class Desk, Chief Engineer)*, on the behalf of the PM, shall per references (a - v), Figure 1 and 2, and Table 1, shall:

- a. Evaluate the RDA for MCC;
- b. Evaluate the RDA for CPI;
- c. Request a Counter-intelligence Threat Assessment report for the RDA CPI to Patuxent River, MD NCIS office;
- d. Submit a Supply Chain Risk Management Threat Assessment Center request provided by AIR 7.4.3 Technology Protection Division Head via SIPRNET) to AIR 7.4.3 for identified Critical Level I/II MCC identified during the CA;
- e. Conduct vulnerability assessments;
- f. Coordinate with 4.1, 4.1.9, 4.9.4, 4.1.14, 6.6, 6.7, 7.2, 7.4 and Naval Criminal Investigative Service (NCIS) Patuxent River, MD for assistance and guidance with identification of countermeasures to protect the CPI and MCC;
- g. Develop a PPP and utilize reference (x) to evaluate the PPP for content compliance;

- h. Route the Draft and Final PPP via AIR 7.4.3 for initial review and endorsement prior to forwarding to DASN RDT&E or Office of Secretary Defense;
- i. Acquire Milestone Decision Authority Approval and other applicable stakeholders “Concurrence” for the PPP at applicable milestone decisions;
- j. Ensure the Department of Defense (DoD) Acquisition Security Database (ASDB) reflects an entry for the RDA and the identified CPI and CPI Approval Memorandum are uploaded;
- k. Ensure the PPP is placed on contract (if applicable) and the contract contains Program Protection statement of work (SOW) language refer to [http://www.acq.osd.mil/se/initiatives/init\\_pp-sse.html](http://www.acq.osd.mil/se/initiatives/init_pp-sse.html) and a Program Protection Implementation Plan CDRL and DID refer to <http://everyspec.com/>;
- l. Ensure counterfeit avoidance requirements are placed on contract (as applicable) as per the revision to the DFARS on 6 May 2014, which added SUBPART 246.870, Contractors' Counterfeit Electronic Part Detection and Avoidance Systems;
- m. Ensure DFARS Clause 252.204-7012 is placed on contract to ensure the Safeguarding of Controlled Unclassified Information at the contractor; and,
- n. Ensure all personnel who have a need-to-know shall implement the countermeasures outlined in the PPP.

14.55.D. *Technology & Program Protection Division Head (AIR-7.4.3)* shall:

- a. Provide guidance and direction on how to acquire support in the identification of CPI and MCC;
- b. Provide guidance on how to acquire threat assessment reports for CPI and MCC;
- c. Provide PPP development guidance, support and oversight;
- d. As the NAVAIR Supply Chain Risk Management Threat Assessment Center (SCRM TAC) request point-of-contact (POC), review RDA SCRM TACs for accuracy and forward to the DASN RDT&E SCRM POC for final processing at Defense Intelligence Agency;
- e. Provide guidance on the selection of traditional security countermeasures as addressed in paragraph 14.53;
- f. As the NAVAIR ASDB Administrator, approve or disapprove User Access Requests for access to NAVAIR RDA CPI resident in the DoD ASDB;
- g. As a stakeholder for the PPP, review and endorse all Draft and Final PPPs as a “Concurrence” signature per Figure 1 and Figure 2; and,
- h. Maintain an online repository of policy guidance, processes, tools and templates to support Program Protection which is located on the MyNAVAIR web site located at [https://mynavair.navair.navy.mil/portal/server.pt/gateway/PTARGS\\_0\\_62015\\_843\\_1062\\_66625\\_43/docman/download/684094/0/0/0/TechnologyProtection.pdf?](https://mynavair.navair.navy.mil/portal/server.pt/gateway/PTARGS_0_62015_843_1062_66625_43/docman/download/684094/0/0/0/TechnologyProtection.pdf?), Technology Protection.

**NOTE:** Modification of the templates, tools and processes on the Technology Protection webpage are not authorized without prior approval from AIR-7.4.3. Modification to templates, tools and processes owned by other competencies must be coordinated with the owner.

14.55.E. *CPI Lead (AIR-4.1)* in accordance with references (f) and (m) shall:

- a. Provide guidance and support on completing the CPI identification process to include the CPI Survey, CPI Work breakdown tool, and CPI Approval memorandum; and
- b. Review and endorse all CPI Surveys, CPI Work Breakdown Structure Tools and CPI Approval Memorandums.

14.55.F. *Anti-Tamper (AT) Lead (AIR-4.1.14)* in accordance with reference (l) shall:

- a. Provide guidance and support the PM in Systems Engineering activities to identify countermeasures to impede reverse-engineering of CPI located onboard the RDA (i.e. weapons system/platform/trainer);
- b. Participate in the identification of CPI; and,
- c. Review and endorse AT Plans.

14.55.G. *Chief/Lead Engineer (AIR-4.1)* shall:

- a. Lead the CA to identify MCC;
- b. Lead or participate in the identification of CPI; and,
- c. Support the implementation of countermeasures for CPI and MCC.

14.55.H. *Cyber Security/Information Assurance (AIR-7.2)* in accordance with references (b), (e), (i), (k) and (v - w) shall:

a. Provide support to ensure the confidentiality, integrity, availability, non-repudiation, and authorization of digitized information, information systems and networks against unauthorized access to or modification, whether in storage, processing, or transit, and protection against the denial of service to authorized users, including measures to detect, document and counter such threats during development, testing, deployment, and disposal across the enterprise architecture; and,

b. Cybersecurity Strategies are required as a primary acquisition program milestone document with an independent review and approval cycle and serve as an appendix to the PPP. Command Information Officer and AIR-7.2.6 review and endorse ACAT I and ACAT II Cyber Security Strategies which are then forwarded to DON Chief Information Officer (CIO) for coordination for review and approval in accordance with reference (b). See Table 1. ACAT ID and IC Cybersecurity Strategies are approved by DoD CIO. NAVAIR Command Information Officer and AIR-7.2.6 review and approve ACAT III, ACAT IV and AAP Cybersecurity Strategies.

**Table (1): Cybersecurity Strategy Approval**

| ACAT | Review and Endorsement by Command Information Officer | Approval by as Command Information Officer | Review and Endorsement by DASN (C <sup>4</sup> I&Space) | Review and Endorsement by DON CIO | Approval by DON CIO | Approval by DoD CIO |
|------|---|--|---|-----------------------------------|---------------------|---------------------|
| IC   | X   |  | X   |                                   | X                   |                     |
| ID   | X   |  | X   | X                                 |                     | X                   |
| IAM  | X   |  | X   | X                                 |                     | X                   |
| IAC  | X   |  | X   | X                                 |                     | X                   |
| II   | X   |  | X   |                                   | X                   |                     |
| III  |   | X  |   |                                   |                     |                     |
| IV   |   | X  |   |                                   |                     |                     |
| AAP  |   | X  |   |                                   |                     |                     |

14.55.I. *Naval Criminal Investigative Service* at Patuxent River, MD in accordance with references (b) and (j) shall:

- a. Provide Counter-Intelligence (CI) support by producing counter-intelligence threat reports (which include Technology Targeting Risk Assessments) for RDA CPI;
- b. Provide CI Support Plans; and,
- c. Provide CI briefs.

14.55.J. *Software Assurance (AIR-4.9.4)* in accordance with reference (v) shall: Provide support to ensure the level of confidence that software functions as intended and is free of vulnerabilities, either intentionally or unintentionally designed or inserted a part of the software throughout the lifecycle.

14.55.K. *Logistics Management (AIR-6.7/6.6)* in accordance with references (b), (c), (d), (g), (i), (o - s) and (w) shall:

- a. Provide logistics management support to integrate logistics support considerations into the design and delivery of coordinated logistics products; and
- b. Provide support to ensure mission critical components are protected during the acquisition and sustainment process via a secure supply chain program.

14.55.L. *Manufacturing & Quality (Critical Item Management Lead/Manufacturing & Quality Supply Chain Management (AIR-4.1.9))* in accordance with references (o) - (u) shall: Provide manufacturing and quality risk management support, to prevent and ready detect counterfeits via a secure supply chain program.

14.56. POC: Don Bernard, AIR 7.4.3, (301) 757-6420.

## CHAPTER XIV: ENGINEERING DISCIPLINES

### PART K: TECHNOLOGY READINESS ASSESSMENT / TECHNOLOGY MATURITY ASSESSMENT

14.57. Purpose. A Technology Readiness Assessment (TRA) is a systematic, metrics-based process that is used to assess the technology maturity of immature technologies. The TRA is identified in the Department of Defense Instruction (DoDI) 5000.02 as a regulatory requirement for Major Defense Acquisition Programs (MDAPs) at Milestone (MS) B. In Secretary of the Navy (SECNAVINST) 5000.2E, TRAs are required for MS B and MS C for all Acquisition Categories (ACATs). Additionally, MDAPs are required to comply with Title 10 United States Code (U.S.C.) 2366b at MS B (i.e., the milestone decision authority (MDA) is required to certify that all immature technologies have been demonstrated in a relevant environment; that is technology readiness level (TRL) 6). Non-MDAPs are required to meet the same TRL 6 requirement per NAVAIR best practice but no statute applies. A TRA is formally requested by the Program Manager (PM) through the NAVAIR TRA Chairman and conveyed to the Office of Naval Research (ONR). The TRA is coordinated and conducted by the NAVAIR Independent Technical Review Office (ITRO), with cooperation of the program office, via the NAVAIR TRA Chairman and Office of Naval Research (ONR) co-Chairman with the assistance of an independent team of subject matter experts (SMEs). For NAVAIR, the authority to conduct TRAs was delegated by AIR-4.0 Research and Engineering and acknowledged by the Science and Technology (S&T) Executive, Chief of Naval Research (CNR), to the NAVAIR TRA Chairman. For ACAT I and II programs, TRA findings are briefed by the NAVAIR TRA Chairman and the ONR co-Chair to the CNR for concurrence and passage to the MDA. TRA findings are provided to the Assistant Secretary of Defense for Research and Engineering, ASD(R&E) with copy to the Assistant Secretary of the Navy for Research, Development, Test and Evaluation (ASN(RDT&E)) for MDAPs. For ACAT IC (when delegated) and II programs, TRA findings are provided directly to ASN (RDT&E). The NAVAIR TRA Chairman provides TRA findings to the applicable Program Executive Officer (PEO) as MDA for ACAT III and IV programs. A TRA plan is documented by the ITRO with the program at the beginning of each TRA to establish a Plan of Action and Milestones (POA&M) and coordination details. The plan is socialized with all key stakeholders (e.g., ONR and ASD(R&E)) for awareness and planning.

14.57.A. A TRA is conducted for entry into MS B and C as delineated above. The TRA depends on system prototype demonstration artifacts to assess technology readiness of immature technologies, i.e., Critical Technology Elements (CTEs). A CTE is assigned a TRL by an independent review panel (IRP) of SMEs. The IRP, identified by the TRA Chairman and agreed to by ONR (when applicable), include SMEs from across NAVAIR competencies, ONR, other services and agencies, and academia. Although TRLs serve as a key knowledge-based metric for assessing technology maturity, actual assignment of a TRL is dependent upon expert professional judgment by the IRP. Note, only a CTE is assigned a TRL. If no CTEs are identified, then there are no TRLs. A TRA is completed in source selection on all proposals in response to a MS B request for proposal (RFP) or other Engineering and Manufacturing Development (EMD) initial entry point.

14.57.B. A preliminary TRA (Pre-TRA) is required prior to MS B in support of Development RFP Release Decision Point as an initial assessment based on best available data. The Pre-TRA is used by the MDA as an early assessment of technology risk to meet Title 10 U.S.C. 2366b and considered an important input in the decision to release the EMD RFP. The Pre-TRA follows the same process as the formal MS B TRA but is limited by the best available data at that time and immature technologies are acknowledged as "candidate" CTEs until subsequent receipt of actual design proposals.

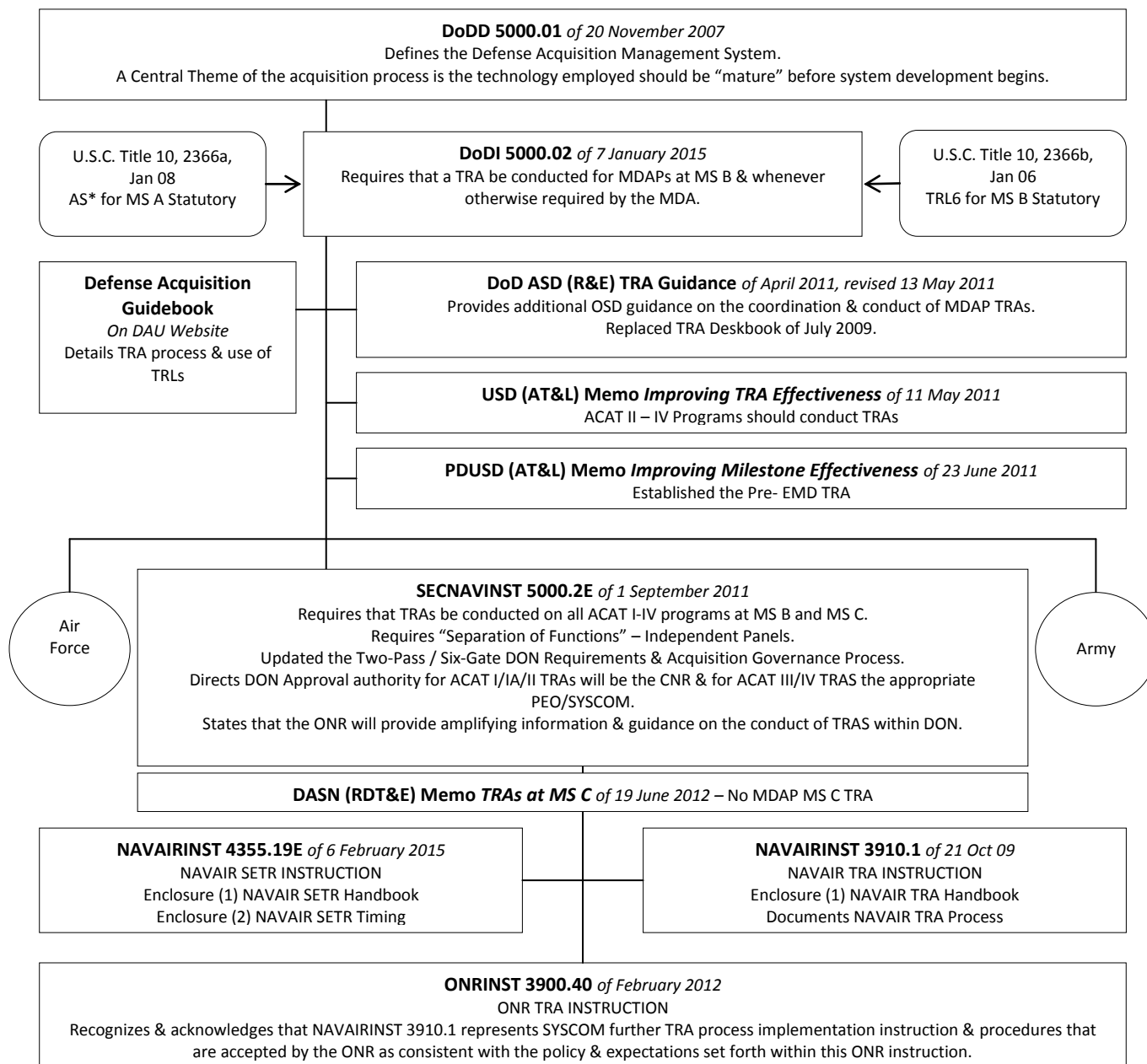
14.57.C. In support of MS A and Pre-MS A Analysis of Alternatives (AoA), a Technology Maturity Assessment (TMA) is conducted to assess the risk of identified "candidate" CTEs to achieve TRL 6 by MS B. A TMA follows the same process as the TRA and is also coordinated through the ITRO and TRA Chairman. The increasing pressures to deliver enhancing capabilities using streamlined acquisition models requires due diligence to ensure immature technologies identified prior to MS B do indeed mature at a sufficient rate to achieve TRL 6. Therefore, a Technology Maturation Plan (TMP) is required for each identified candidate CTE.

14.57.D. A TRA and TMA both follow the same rigorous and disciplined process, with the distinction that a TRA is conducted on the actual proposed or instantiated system design, while a TMA is conducted on a system design that has not yet been finalized (pre-MS B), or is not in response to a regulatory requirement, and could be requested at anytime along the DoD acquisition lifecycle (i.e., customer request for risk mitigation). TMA and TRA findings,



along with evolutionary incremental technology insertion planning, are to be included in the program's Acquisition Strategy (AS) and Systems Engineering Plan (SEP).

14.58. Source Documents:

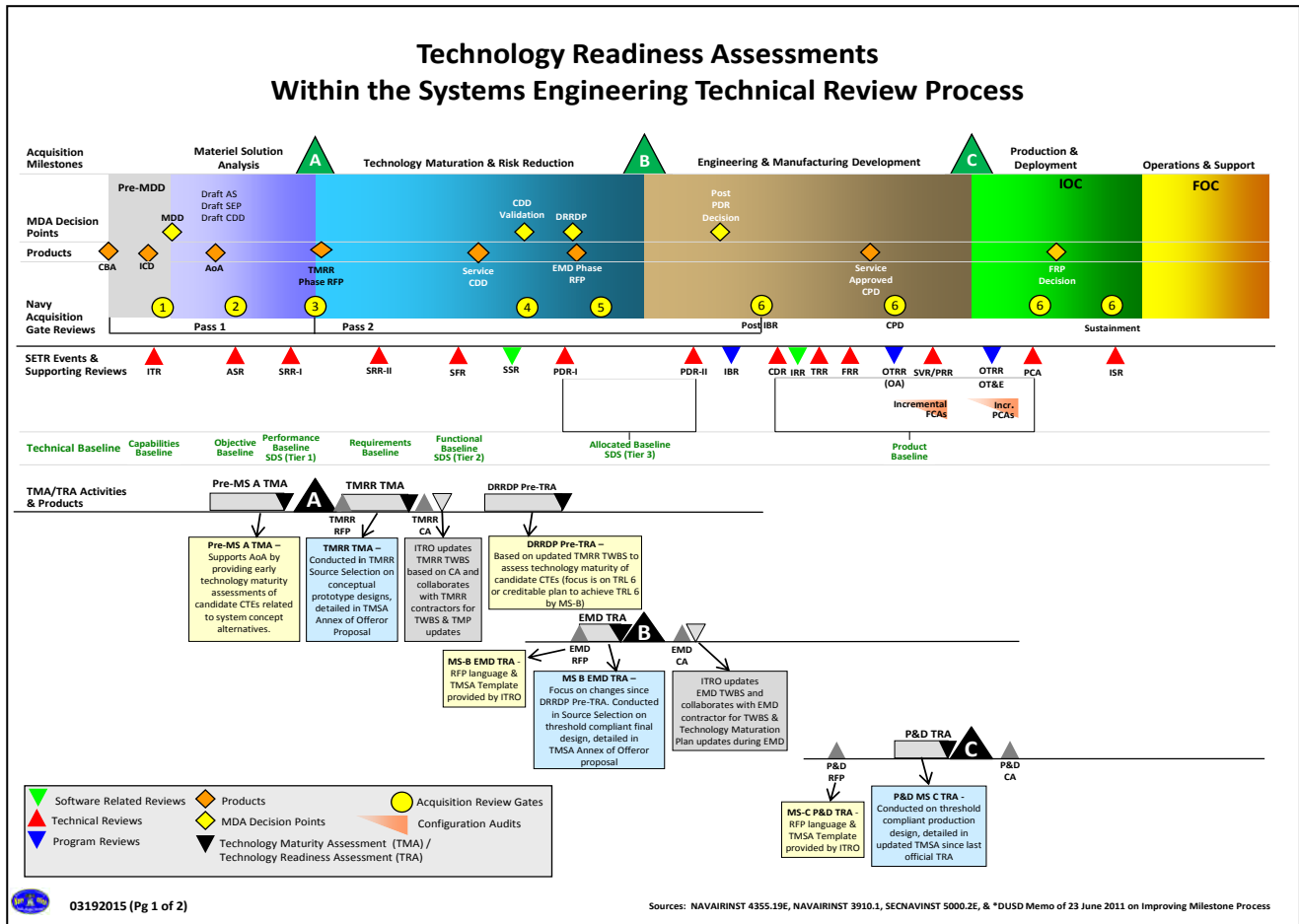


\* The AS has replaced the Technology Development Strategy for all acquisition phases per DoDI 5000.02 of 7 January 2015

14.59. Discussion.

14.59.A. NAVAIRINST 3910.1 of 21 October 2009 identifies policy; outlines the NAVAIR TRA Process; assigns responsibilities for the planning, conduct, reporting, and certification of TRAs for ACAT I – IV programs aligned to NAVAIR; and disseminates its respective enclosure, NAVAIR TRA Handbook, Version 2.0, Feb 12 as guidance.

14.59.B. Systems Engineering Technical Review (SETR) checklists, found at the Naval Systems Engineering Resource Center (NSERC) website, contain TMA and TRA specific questions for each SETR event. (See figure below).



### Acquisition Management: SETR/TMA/TRA Events and Timelines Chart

14.59.C. A TRA is required by DoDI 5000.02 for MDAPs at Milestone B (or at a subsequent milestone if there is no MS B). It is also conducted whenever otherwise required by the MDA. The TRA final report for MDAPs must be submitted to ASD (R&E) for review to support the requirement that ASD (R&E) provide an independent assessment to the MDA.

14.59.D. To reduce the risk associated with entering EMD, DoDI 5000.02 requires RFPs to include language that prevents the award of an EMD contract if it includes CTEs that have not been adequately demonstrated. A system/subsystem prototype or model demonstration in a relevant environment (i.e., TRL 6) is a key benchmark in assessing technology readiness to enter the EMD phase. As such, a generic TRA of available technologies on the market and not specific to a technical solution of a proposed system concept would be insufficient for a Milestone B TRA but could be part of a pre-Milestone B TMA.

14.59.E. In accordance with an USD (AT&L) memo titled *For Component Acquisition Executives, Subject: Improving TRA Effectiveness*, dated 11 May 2011:

- A TRA is required for MDAPs at MS B (or at a subsequent milestone if there is no MS B) to support the independent review and assessment by the ASD (R&E).
- The ASD (R&E) will determine whether the technology of the program has been demonstrated in a relevant environment to support the MDA's certification under 10U.S.C. § 2366b.
- TRAs for the ASD (R&E) are not required for Major Automated Information System programs, non-MDAPs, or MDAP MS C decisions, except for MDAPs entering the acquisition system at MS C.
- ACAT II- IV programs should conduct TRAs in accordance with relevant Component direction by tailoring the "TRA Guidance" as appropriate.

14.59.F. In accordance with *DoD TRA Guidance*, prepared by the ASD (R&E), dated April 2011, revision posted 13 May 2011:

- TRAs that must be submitted to ASD (R&E) are required only for MDAPs that require certification under *10 United States Code (U.S.C.) §2366b* or other provisions of law, or when otherwise directed by the MDA.
- Generally, TRAs are not required for MDAPs at MS C.
- MDAs for non-ACAT I programs should consider requiring TRAs for those programs when technological risk is present.

14.59.G. In accordance with USD (AT&L) memo titled *For Secretaries of the Military Departments, Subject: Improving Milestone Effectiveness*, dated 23 June 2011:

- A preliminary version of the TRA final report will be presented at the pre-MS B MDA Review prior to RFP release for the EMD phase.

14.59.H. In accordance with a Deputy Assistant Secretary of the Navy (DASN) for Research, Development, Test and Evaluation (RDT&E) memo titled *TRAs at MS C*, dated, 19 June 2012:

- Consistent with current ASD (R&E) policy and with the continuing effort to streamline the acquisition process, effective immediately, Assistant Secretary of the Navy for Research, Development and Acquisition (ASD (RD&A)), will no longer require a TRA as part of a MDAP MS C review.
- Non-MDAP programs should conduct TRAs in accordance with current SECNAVINST 5000.2E guidance. (Note that all non-MDAP programs will continue to require MS C TRAs consistent with SECNAVINST 5000.2E.)

14.60. POC: Jennifer Kirkwood, AIR-4.5E, ITRO Lead (301) 342-9107. Dr. Edward J. Copeland, Technical Director Avionics, Sensors, and E\*Warfare Department (AIR-4.5), NAVAIR Fellow (301) 342-9154.

## CHAPTER XV: OTHER KEY TOPICS

### PART A: TEAMING

15.1. Purpose. Teaming refers to the cooperation of Government entities/individuals, including Program/Project/Acquisition Manager (PM/AM), the Contracting Officer, the Defense Contract Audit Agency (DCAA), the Defense Contract Management Agency (DCMA), AIR-4.2 cost estimators, and other activities such as the Navy Price Fighters, to support a procurement from the planning phase through the negotiation and award phases. Teaming enables concurrent versus serial completion of required efforts, including those associated with proposal analysis. For sole source procurements, teaming may also involve the contractor/ subcontractor(s) for the effort. The goal of teaming is to work together to minimize workload redundancy, improve quality and cycle times, and ensure a fair and reasonable price.

15.2. Discussion. Teaming is useful throughout the acquisition process as it enables stakeholders to be dedicated to the procurement process and to work hand-in-hand with others thus minimizing the duplication of effort and maximizing efficiencies. Recent experience on one of NAVAIR's ACAT 1D sole source procurements has demonstrated the benefits of teaming to complete proposal analysis. Through teaming of the Government stakeholders with the contractor and subcontractors, DCAA's analysis of subcontractor proposals was able to commence prior to formal receipt of the contractor proposal, resulting in significant cycle time reductions. In general, when proposal analysis is conducted using teaming, details such as the extent of assistance required, the specific proposal areas for which assistance is needed, a realistic review schedule, and the information necessary to perform the review are discussed by the team members early in the planning phase. Frequent communication among the team is required throughout the process to enable issues to be identified and resolved without major impacts to the procurement schedule.

15.3. POC: The cognizant program procuring contracting officer (PCO) or AIR-2.1.1, Contract Policy Management Division, (301) 757-8953

## CHAPTER XV: OTHER KEY TOPICS

### PART B: ADVISORY AND ASSISTANCE SERVICES

#### 15.4. Source Documentation:

OMB Circular Number A-11 (Aug 12), Section 83  
DoD FMR 7000.14R Volume 2B (Chapter 19)  
FAR Subpart 37.2  
AIR-7.6 memo 7000 Ser AIR-7.6.2.1/290 of 9 Dec 99  
AIR-10.0 memo 7000 Ser AIR-10.3CM/09-006 of 28 Apr 09

15.5. Definition. Advisory and Assistance Services (A&AS), previously referred to as Consulting Services, Contracted Advisory and Assistance Services, and Contractor Support Services, are 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. The products of A&AS may take the form of information, advice, opinions, alternatives, analyses, evaluations, recommendations, training, and technical support.

15.6. 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 the customer order). WCF activities are only responsible for A&AS associated with overhead (i.e., indirect) functions.

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

15.7.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.

15.7.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.

15.7.C. Engineering and Technical Services (ETS). Contractual services that take the form of advice, assistance, training, or hands-on training necessary to maintain and operate fielded weapon systems, equipment, and

components at design or required levels of effectiveness. 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 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.

15.8. 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 procured; 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.

15.9. POC:

Jennifer Glass, AIR-10.3, (301) 757-7801 (Policy/PB-15 Budget Exhibit)

Alicia Weeks, AIR-10.3, (301) 757-7781 (Policy/PB-15 Budget Exhibit)

Heather McGuire, AIR-10.3, (301) 757-7807 (Policy)

## CHAPTER XV: OTHER KEY TOPICS

### PART C: SMALL BUSINESS UTILIZATION POLICY AND PROCEDURES

#### 15.10. Purpose:

15.10.A. The Small Business Act, Public Law 85-536, as amended, states that “It is the declared policy of the Congress that the Government should aid, counsel, assist, and protect, insofar as is possible, the interests of small-business concerns in order to preserve free competitive enterprise, to insure that a fair proportion of the total purchases and contracts or subcontracts for property and services for the Government (including but not limited to contracts or subcontracts for maintenance, repair, and construction) be placed with small business enterprises...., and to maintain and strengthen the overall economy of the Nation.” This statement also includes contracts and subcontracts for subsystems, assemblies, components, and related services for major systems. Heads of contracting activities are responsible for effectively implementing the small business programs within their activities, including achieving small business program targets.

15.10.B. The Act requires each agency with contracting authority to establish an Office of Small Business Programs (OSBP). The NAVAIR OSBP head is appointed by the Commander, NAVAIR, or his Deputy and is responsible for carrying out the functions and duties in sections 8, 15, and 31 of the Small Business Act. The OSBP cooperates and consults on a regular basis with the Small Business Administration (SBA) in carrying out NAVAIR’s functions and duties regarding the Act. Small Business Professionals make recommendations in accordance with agency procedures as to whether a particular acquisition should be awarded as a small business set-aside, as a Service-Disabled Veteran-Owned Small Business set-aside, as a Section 8(a) award, as a HUBZone set-aside, or as a Woman-Owned Small Business set-aside. Contracting activity Small Business Professionals perform this function by: 1) reviewing and making recommendations for all acquisitions over \$3,000; 2) making the review before issuance of the synopsis and documenting it on a DD Form 2579, Small Business Coordination Record; and 3) referring recommendations that have been rejected by the contracting officer to the SBA Procurement Center Representative (PCR).

15.10.C. Section 15 of the Small Business Act states that each contract for the purchase of goods and services that has an anticipated value greater than \$3,000 but not greater than \$150,000 shall be reserved exclusively for small business concerns unless the contracting officer is unable to obtain offers from two or more small business concerns that are competitive with market prices and are competitive with regard to the quality and delivery of the goods or services being purchased.

#### 15.11. Source Documentation and Guidance:

NAVAIRINST 4380.4A - Naval Air Systems Command Small Business Program  
NAVAIR OSBP Community of Interest (COI) website at <https://mynavair.navair.navy.mil/osbp>  
NAVAIRINST 4200.36E - Acquisition Plans  
Contracts Competency Instruction (CCI) 4200.42C - Procedure for Review and Approval of  
Small Business Subcontracting Plans  
NAVAIRINST 4200.37B - The Procurement Initiation Document Process  
SECNAVINST 4380.8C - Implementation of the Department of the Navy Small Business Program  
NAVAIR OSBP public website at <http://www.navair.navy.mil/osbp/>  
Sources Sought Guidebook located on NAVAIR OSBP COI and Acquisition Management System  
Public Law 85-536, as amended, The Small Business Act  
Section 1207 of Public Law 99-661, National Defense Authorization Act for FY87  
Title 13, Code of Federal Regulations, Business Credit and Assistance  
Title 15, United States Code, Section 631, Declaration of Policy on Aid to Small Business  
Federal Acquisition Regulation (FAR)  
Defense Federal Acquisition Supplement (DFARS)  
Navy Marine Corps Acquisition Regulation (NMCARS)

#### 15.12. Small Business Programs:

The Department of the Navy is required by statute to implement several basic small business programs: Small Business, Women-Owned Small Business (WOSB) Small Disadvantaged Business (SDB), Small Disadvantaged Business 8(a) Certified (8(a), Historically Underutilized Business Zone (HUBZone) Veteran-Owned Small Business (VOSB) Service-Disabled Veteran-Owned Small Business (SDVOSB). For more information, including a Fact Sheet on each category of small business, visit the NAVAIR OSBP COI.

A business concern may meet the requirements of multiple programs at the same time with the Navy receiving credit towards their small business targets under all applicable programs. Small Businesses must be located in the United States, organized for profit, including affiliates is independently owned & operated, not dominant in field of operations in which it is bidding on Government contracts, and meet the SBA's size standards included in the solicitation.

The size standard is based upon the North American Industrial Classification Standard (NAICS) assigned to the specific procurement and is dependent upon the product/service being purchased. The Contracting Officer determines the appropriate NAICS code and related small business size standard, in coordination with the requiring office, NAVAIR Small Business Deputy and the SBA PCR. The NAVAIR Small Business Deputy and SBA PCR should be involved in this discussion early in the acquisition process. The NAICS manual is available online at [www.census.gov/epcd/www/naics.html](http://www.census.gov/epcd/www/naics.html).

#### 15.13. NAVAIR Executive Small Business Council:

NAVAIR's Executive Small Business Council (ESBC), headed by the NAVAIR Commander, was established with a vision of enabling NAVAIR to provide the Warfighter with creative, affordable solutions brought to them through small business. The ESBC's mission is to ensure small businesses have the maximum practicable opportunity to participate in NAVAIR procurements, both as prime and subcontractors. The Council's objectives are:

1. Improve workforce awareness and initiate manager, supervisor and team lead accountability for NAVAIR small business contract participation.
2. Improve opportunities for small business participation as prime and subcontractors in NAVAIR contracts.
3. Institutionalize a culture that leverages and values small business participation in NAVAIR contract awards.
4. Provide guidance, resourcing and barrier removal for established teams (Performance Analysis, Process and Communication/Best Practices).

Each Command, Competency and Program Executive Office (PEO) has a representative on the Council. In addition, there are opportunities to participate in special projects in support of the ESBC. Contact your Council representative or the NAVAIR OSBP to learn more.

#### 15.14. Small Business Goals/Targets:

Government wide small business goals are established each fiscal year by the President. Notwithstanding these government-wide goals, each procuring agency will have annual targets that represent the maximum practicable opportunity for small business participation as prime contractors. Each fiscal year, the NAVAIR OSBP negotiates small business targets with the Department of the Navy's OSBP. The NAVAIR OSBP Associate Director negotiates targets with NAVAIR's Business Units. NAVAIR's targets and performance data are available on the NAVAIR OSBP COI as well as the NAVAIR OSBP public web site. Achieving NAVAIR's targets takes teamwork and is the responsibility of all NAVAIR acquisition personnel.

NAVAIR's OSBP manages the activity's small business functions, including providing periodic reports to the Commander/Commanding Officer on overall small business program implementation at the activity. They also assist and advise contracting and requiring office personnel, to include PEO and Competency leadership on small business program-related regulatory, policy and directive requirements. The NAVAIR OSBP establishes processes and procedures for the Command's small business program.

By reviewing proposed contracting actions, reviewing acquisition plans and acquisition strategy documents, participating in source selections, and reviewing subcontracting plans, the NAVAIR OSBP works to ensure that small businesses are provided the maximum practicable opportunity within NAVAIR acquisitions.



#### 15.15. Acquisition Planning:

15.15.A. Acquisition planners, to the maximum extent practicable, are required to structure contract requirements to facilitate competition by and among small business concerns as prime contractors, and avoid unnecessary and unjustified bundling that precludes small business participation as prime contractors (see NAVAIRINST 4200.36E, FAR 7.107 and 15 U.S.C. 631(j)). At NAVAIR, examination of potential breakout opportunities is especially important when developing acquisition plans. To meet this requirement, the NAVAIR OSBP should be a participant in the development of Acquisition Strategies and is a required reviewer of Acquisition Plans. The OSBP is also available to assist with Market Research as required by FAR Part 10. Website resources available to locate small businesses are at the NAVAIR OSBP public website and the NAVAIR OSBP COI website.

15.15.B. For Competitive Acquisitions that are not set-aside for small business, DFARS 215.304 requires the extent of participation of small businesses in performance of the contract be addressed in source selection. Your OSBP can assist you with the appropriate language, which will be tailored for individual procurements, for your Source Selection Plan and RFP.

15.15. C. The use of technologies developed under Small Business Innovative Research (SBIR) programs should be utilized to the maximum extent practicable, in order to leverage NAVAIR investment in these technologies and enable successful transition to production.

#### 15.16. Market Research:

Market research is a process of collecting and analyzing information to gain insight concerning the capabilities within industry, to include small businesses, to satisfy requirements. Market research is important because sound fundamental market awareness often identifies new suppliers with different capabilities. New suppliers increase competition which lowers cost and improves program performance. Per FAR Part 10 market research must be conducted for each procurement. NAVAIR offers a course in market research that covers successful methods of market research. Contact your local training coordinator for more information. Additional information on market research, to include a Guidebook on Communication with Industry and a Sources Sought Guidebook, can be found on the NAVAIR OSBP COI.

#### 15.17. Small Business Set-Asides:

The term “set-aside for small business” means the reserving of an acquisition exclusively for participation by small business concerns. Set asides may be total or partial. Set-asides are available for SB, WOSB, HUBZone and SDVOSB concerns. Regulatory coverage of small business set-asides is found at [FAR Subpart 19.5](#).

#### 15.18. Small Business Subcontracting Program:

15.18A. The Small Business Subcontracting Program is another means for supporting the small business industrial base with increased opportunities for participation in procurement by various socio-economic groups. For more information, including a Fact Sheet entitled DoD Subcontracting Program: the Basics, visit the OSBP COI.

15.18.B. FAR 19.7 requires that an acceptable subcontracting plan be submitted to the Government for all contract actions with large business concerns that exceed \$650,000 (inclusive of options). The PCO is responsible for reviewing subcontracting plans as specified in FAR 19.705-4 Reviewing the Subcontracting Plan. The Subcontracting Plan must then be routed to the Defense Contract Management Agency, NAVAIR OSBP and the SBA PCR for their review and concurrence. Finally, the contract file must be documented to reflect the review and the PCO’s final decision relative to an acceptable subcontracting plan.

15.18.C. NAVAIR CCI 4200.42C identifies the procedures for review and approval of subcontracting plans. Routing and approval of the subcontracting plan, and subcontracting plan checklist should be initiated by the PCO as soon as proposals are received in order for all team members to have adequate time for proper review.

15.18.D. If it is determined that there are no subcontracting opportunities available within the procurement and that a subcontracting plan is not required, a determination signed at a level above the PCO must be placed in the contract file in accordance with FAR 19.705.2(c). This determination shall be made on page three of the subcontracting plan checklist after coordination with the NAVAIR OSBP and SBA PCR.

15.18.E The requiring organization (Program Office or Competency) is responsible for monitoring the prime contractor's performance under the subcontracting plan incorporated into their contract. This ongoing evaluation should be used to determine reasonability of proposed goals on future similar contracts, and also to support the Contractor Performance Assessment Reporting System (CPARS) evaluation of Small Business Utilization. Guidance for this evaluation may be found on the NAVAIR OSBP COI.

15.19. Lessons Learned:

- Acquisition Plans that are not reviewed by the NAVAIR OSBP often have missing or inadequate language addressing small business participation in the procurement. The earlier the OSBP is brought into the procurement strategy, the easier and quicker it is for procurement documents to be reviewed. It will also reduce the risk of delays during Navy and OSD level Peer Reviews.
- Market Research (as required by FAR Part 10) must be conducted and documented in order to support the selected acquisition strategy. Too often this critical activity is not thorough enough, and as a result, competitions are reduced, acquisitions are delayed and the likelihood of protests increases. Market Research Training is available on the NAVAIR OSBP COI.
- Industry Days and Sources Sought Synopses are good tools to assist with market research, and should be done early in the procurement cycle. New small businesses enter the marketplace every day. Just because a small business was not found the last time the procurement was competed does not mean that a small business is not available now. A Sources Sought Guidebook is available on the NAVAIR OSBP COI.
- The Small Business Coordination Record DD Form 2579 must be completed prior to synopsis of a requirement (NAVAIRINST 4380.4). Time is often wasted if an improper NAICS code is selected or if a competitive requirement is synopsized as full and open competition, and then determined to be set-aside for small business. Another synopsis would be required to correct these errors.
- The NAVAIR OSBP can provide advice on filling out the Small Business portion of the Contractor Performance Assessment Reporting System (CPARS). There is also a useful training presentation on this topic located on the NAVAIR OSBP COI.

15.20. POC: Kenneth Carkhuff, Acting Associate Director, NAVAIR OSBP, AIR 09D, (301) 757-9087

## CHAPTER XV: OTHER KEY TOPICS

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

#### 15.21. Source Documentation:

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

**MIL-HDBK-881**, Work Breakdown Structure

Federal Acquisition Regulations/Defense Federal Acquisition Regulations Supplement (**FAR/DFARS**)

15.22. Purpose. The Statement of Work (SOW) 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.

#### 15.23. Guidance

15.23.A. 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 Plan (SEP), 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 4120.9B addresses preparation of program unique specifications for NAVAIR programs.

15.23.B. 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.

15.23.C. 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.

15.24. 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.

15.25. 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 Offerors 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.

15.26. 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.

15.27. Available Training Courses:

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)

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

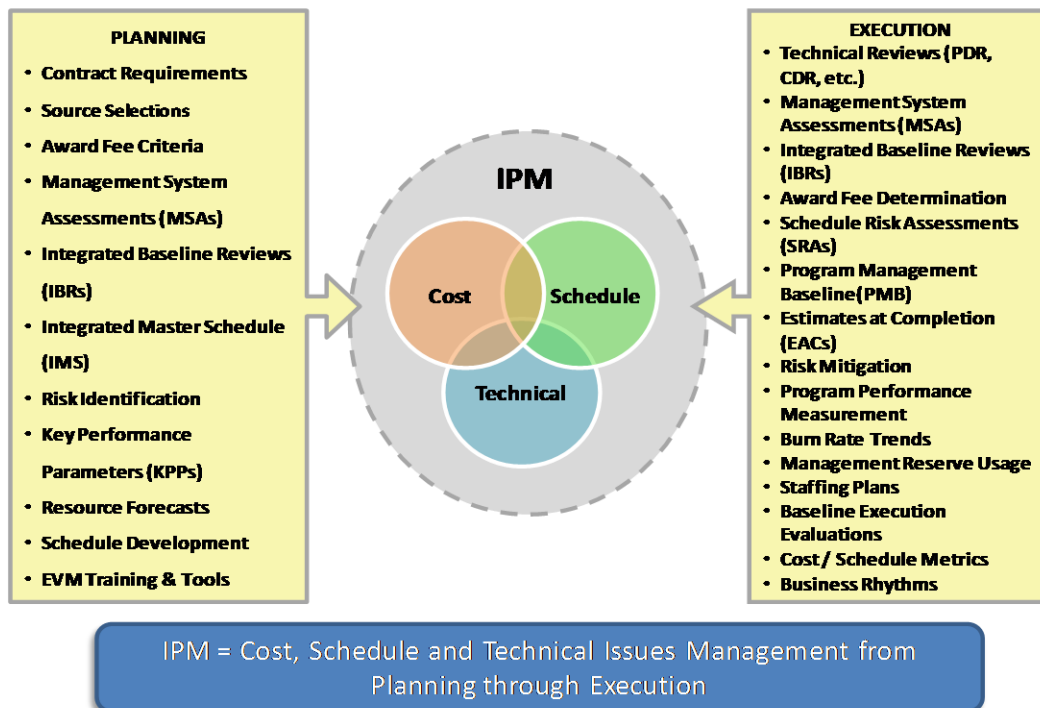
## CHAPTER XV: OTHER KEY TOPICS

### PART E: INTEGRATED PROJECT MANAGEMENT/EARNED VALUE MANAGEMENT

15.29. Discussion. Integrated Project Management (IPM)/Earned Value Management (EVM) is a systematic approach that integrates the various management subsystems to facilitate the completion of projects within cost, schedule and scope constraints regardless of whether it is contractor or (in-house) effort. An EVM System incorporates best business practices that impact all of an organization's subsystems needed to manage and gauge the health of a project. After the management processes are in place, IPM/EVM provides project managers integrated visibility into a project's cost, schedule and technical progress (see "Integrated Project Management" chart). Implementation of EVM should be on projects that are over twelve months in duration, non level-of-effort type work, and over \$20M. Efforts greater than \$50M require the use of a formerly validated EVM system in accordance with Electronics Industries Alliance (EIA) Standard-748. In general EVM is not implemented on Firm Fixed Price efforts; however, if the program manager for a Firm Fixed Price effort believes there is sufficient risk they may choose to require using EVM. The main deliverable reports from contractors for EVM is the Contract Performance Report and the Integrated Master Schedule. An Estimating Technical Assurance Board (ETAB) process has been established to provide credible/defendable estimate inputs for Estimates at Completion (EACs) developed by NAVAIR. The determination of the need for an ETAB will be driven by the visibility and/or risk of the contract. Conducting an ETAB is also based on a joint decision between Program Executive Office (PEO) and AIR-4.2. It is recommended as a best practice to coordinate the completion of EACs in support of the budgetary cycle. Results from the EAC may impact funding decisions and this data is more useful prior to finalized budgets. On 20 February 2012, the NAVAIR Commander identified EVM as a mandatory best practice to improve affordability and speed to the fleet.

15.30. POC: Reginald A. Goodman, AIR-4.2.3, (301) 342-2455

### INTEGRATED PROJECT MANAGEMENT (IPM)



## CHAPTER XV: OTHER KEY TOPICS

### PART F: ENVIRONMENT, SAFETY AND OCCUPATIONAL HEALTH AND ENERGY

15.31. Purpose. This section identifies NAVAIR expertise and resources available to support the integration of environment, safety and occupational health (ESOH) and energy requirements into a program's acquisition life cycle. It is also intended to help acquisition managers understand the ESOH requirements that exist in the systems engineering process.

15.32. Source Documents:

DoDI 5000.02, Operation of the Defense Acquisition System, of 07 January 2015

SECNAVINST 5000.2E, Department of the Navy Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System (JCIDS) of 01 September 2011

SECNAVINST 5090.6A, Environmental Planning for Department of the Navy Actions of 26 April 2004

OPNAVINST 5090.1D, Environmental Readiness Program of 10 January 2014

OPNAV M-5090.1, Environmental Readiness Program Manual (Chapters 10 and 11) of 10 January 2014

42 U.S.C. 4321-4347, National Environmental Policy Act (NEPA) of 1969 and 40 CFR Part 1500 et seq., Council of Environmental Quality (CEQ) - Regulations for Implementing NEPA

32 CFR Part 775, Policies and Responsibilities for Implementation of the National Environmental Policy Act Within the Department of the Navy of 23 February 2004

Assistant Secretary of the Navy (Research, Development and Acquisition) "Energy Evaluation Factors in the Acquisition Process and Energy Considerations in Acquisition Plans" of 12 September 2013

NAVAIRINST 5090.3, Environmental Planning for NAVAIR Actions of 18 June 2007

NAVAIR Energy Strategy of July 2012

NAVAIR Environmental Policy Statement of 29 June 2011

15.33. 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. Department of Defense Instruction (DoDI) 5000.02 requires PMs to conduct a programmatic ESOH evaluation (PESHE) and develop a National Environmental Policy Act (NEPA) Compliance Schedule as part of the acquisition strategy to ensure that impacts are identified and managed or mitigated. PMs are also required to identify energy performance criteria during system development, to include a Key Performance Parameter (KPP) and calculation of the Fully Burdened Cost of Energy (FBCE).

15.34. Resources

15.34.A The Environmental and Energy Programs Department (AIR-1.6) is the Command's technical focal point for development and evaluation of environmental requirements and energy considerations (E2) associated with the systems engineering lifecycle, and ensures that acquisition PMs understand and comply with associated statutes, regulations, and guidance. AIR-1.6's charter is to support the Naval Aviation Enterprise (NAE) mission by providing Program Executive Offices (PEOs) and Fleet Managers with environmental subject matter expertise, policies, products, services, and tools to plan for/execute E2 requirements.

15.34.B. AIR-1.6 is comprised of Expense Operating Budget (EOB), Navy Working Capital Fund (NWCF), and Contractor Support Services (CSS) staff members who:

- Develop, review, coordinate responses, and promulgate internal/external E2 policy/guidance;
- Perform technical reviews of program acquisition documentation and certify E2 compliance;
- Participate in Systems Engineering Technical Reviews (SETR) events for ESOH components;
- Develop tools and training to promote Command compliance and stewardship; and,
- Participate on various stakeholder working groups to standardize E2 integration into acquisition program processes.

15.34.C. Energy: The Secretary of the Navy and Chief of Naval Operations established energy goals specifically focused at the growing cost of fossil fuel and rising demand for alternative energy sources. NAVAIR established an Energy Strategy that addresses SECNAV's energy goals and objectives. NAVAIR also has established a NAVAIR Energy Team (NET) aimed at supporting both Command and PEO energy needs. At a minimum, acquisition PMs can expect to see energy KPP and FBCE requirements.

#### 15.35. Policy and Programs

15.35.A. AIR-1.6 promulgates statutory and regulatory policy, and issues supporting E2 guidance impacting NAVAIR acquisition programs. Policies are developed and coordinated with PEOs and/or NAVAIR acquisition staffs via the PEO Acquisition Code Meetings.

15.35.B. AIR-1.6, in conjunction with the Office of Counsel (AIR-11.4), provides technical and legal support to PEOs and acquisition programs to ensure compliance with E2 laws and regulations, specifically in the development of NEPA documents including Environmental Impact Statements (EIS), Environmental Assessments (EA) and Records of Categorical Exclusion (CATEX). AIR-1.6 acts as liaison with the Chief of Naval Operations Energy and Environmental Readiness Division for adherence to Navy E2 policies and procedures.

#### 15.36. AIR-1.6 Products, Tools, and Services

15.36.A. To ensure effective ESOH risk analysis and management for acquisition programs, AIR-1.6 employs the following tools:

- PESHE Document Authorizing Tool (DAT). A web-based application to assist acquisition PMs and ESOH coordinators with E2 life cycle planning and development of PESHE documents required at MS B, C, and FRP. The tool provides a standardized template and modules for continuous input of technical risks, NEPA compliance schedule, and a planning/execution self-assessment. PESHE DAT also serves as a repository of PESHEs developed within the tool. The PESHE template meets requirements to identify planning and ESOH risks in the following areas: a) NEPA, b) Environmental Compliance, c) Safety and Health, d) Hazardous Materials, e) Pollution Prevention, f) Explosive Safety, and g) Energy Compliance.
- 18-Month Calendar. AIR-1.6 uses a rolling, 18-month calendar to monitor and track Command ESOH activities and compliance, including but not limited to SETR and major test events.
- Acquisition Management System (AMS) Knowledge Management (KM) Portal. The PESHE/Environmental Business Process 'Silver Bar' is used to capture and store up-to-date E2 information, including but not limited to frequently-asked questions (FAQs), policy and guidance documents, training materials, and lessons learned/best practices.

#### 15.36.B. How to Acquire AIR-1.6 Products and Services

Upon program initiation or significant restructure, preparation for milestone decision, Class I Engineering Change Proposal (ECP), or Block Upgrade, Integrated Product Team (IPT) Leads, ESOH Coordinators and/or PMs are strongly encouraged to contact the POCs listed below to schedule an Environmental Planning Meeting (EPM). EPMs are used to establish an overall environmental strategy for acquisition programs, including but not limited to:

- Access to AIR-1.6 tools/data sources;
- E2 information exchange with the program (e.g. current ESOH requirements, HM usage, etc.);
- Review of pertinent program documentation (e.g. Integrated Master Schedule (IMS), Systems Engineering Plan (SEP), Test and Evaluation Master Plan (TEMP), flight test schedules, etc.); and,
- Evaluation of environmental staffing, tools, and other resource requirements.

Output of the EPM should be a program ESOH Plan of Action and Milestones (POA&M), establishing the timeline for development of requisite environmental documents (PESHE, NEPA compliance schedule), and insertion of energy considerations (e.g. eKPP, FBCE in the AoA) as part of the overall program IMS.

15.37. POCs: Herman Varmall, Environmental and Energy Programs Department Head, (301) 757-2155  
[Herman.varmall@navy.mil](mailto:Herman.varmall@navy.mil)

Nicholas Paraskevas, NEPA Program Manager, (301) 757-2140  
[nicholas.paraskevas@navy.mil](mailto:nicholas.paraskevas@navy.mil)

Paige Lehr, Policy and Training Program Manager, (301) 757-2139  
[Paige.lehr@navy.mil](mailto:Paige.lehr@navy.mil)

Robert Hicks, PESHE and ESOH Integration, (301) 757-2148  
[robert.hicks@navy.mil](mailto:robert.hicks@navy.mil)



## CHAPTER XV: OTHER KEY TOPICS

### PART G: CORE LOGISTICS CAPABILITIES, TITLE 10 U.S. CODE, SECTION 2464

#### 15.38. Purpose

15.38.A. Congress' intent is to provide a strike-proof workforce to maintain depot-level maintenance and repair capability during peacetime for warfighter readiness that supports Joint Chief of Staff (JCS) contingency operations and National Defense. Naval Aviation must maintain a Core logistics capability that provides a ready and controlled source of technical competence and resources necessary to execute the strategic, contingency and emergency plans prepared by the Department of Defense.

15.38.B. Title 10 U.S. Code, Section 2464 requires that sufficient Core workload, expressed in direct labor hours (DLHs), ie touch labor, represent the minimum amount of maintenance/repair capability that the DoD Components must maintain in organic depot facilities to ensure contingency operations are not compromised due to the lack of essential depot-level repair support.

15.38.C. Elements of Title 10 U.S. Code, Section 2464 Core statute were added to Title 10 U.S. Code, Section 2366a and Title 10 U.S. Code, Section 2366b via the FY12 National Defense Authorization Act (NDAA) as additional statutory acquisition certification requirements at Milestones (MS) A and B, and prior to entry into LRIP contracts (Public Law 112-81). This enables Program Managers to positively affect the sustainment of the platform(s), systems and/or components during the acquisition phases in obtaining the best depot maintenance and repair solution for their weapon system.

#### 15.39. Discussion

15.39.A. Title 10, U. S. Code, Section 2464 requires the 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.

15.39.B. Title 10, U. S. Code, Section 2464 exclusions apply to systems and equipment under special access programs, nuclear aircraft carriers, and commercial items. The term "commercial items" are defined in the statute as "an end item, assembly, subassembly or part sold or leased in substantial quantities to the general public and purchased without modification in the same form that they are sold in the commercial marketplace, or with minor modifications to meet Federal Government requirements".

15.39.C. Title 10, U. S. Code, Section 2464 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 (JCS) (including establishment of an organic depot maintenance capability not later than four years after achieving Initial Operational Capability (IOC)).

15.39.D. NAVAIR (AIR-6.7.7.2) conducts a non-economic based Core Logistics Analysis (CLA) to provide an early assessment of Systems and Depot-Level Repairables (DLRs), identified via the Level of Repair Analysis (LORA), for their potential to generate Core capability requirements. The establishment of required Core capability at an organic depot facility needs to be planned and budgeted by Program Managers (PMs). This early identification of potential Core capability requirements partially supports the Program's compliance with Title 10 U.S. Code, Section 2366a and Title 10 U.S. Code, Section 2366b. As systems and/or DLRs are identified and submitted by the Program, via the Industrial Assessment (IA) form, AIR-6.7.7.2 will assess the DLRs through a decision logic tree for Core capability requirements and a memorandum detailing the results of the Core determinations will be sent to the Programs. Regardless of the Core/non-Core capability requirements determination, the DLRs are required to proceed to the Depot Maintenance Inter-service (DMI)/Depot Source of Repair (DSOR) process in AIR-6.7.7.1 for depot assignment. (See Part M)

15.39.E. To comply with statutory and DoDI 5000.02 requirements, a CLA is conducted prior to MS A certification to determine the Core applicability of the system, with the results documented in the Preliminary Industrial Assessment (PIA) memorandum to Program leadership. As the design evolves and DLRs become known close to Preliminary Design Review (PDR), an estimate of Core logistics capability and the associated sustaining workloads shall be conducted for MS B certification. The estimate, performed in accordance with the DoDI 4151.20 methodology, quantitates how much Core capability workload is initially projected to sustain the capability of the identified depot-level Core requirements. The result of this analysis is a refinement of the PIA, and will be

documented in an Industrial Assessment (IA) memorandum to Program leadership prior to MS B. Once the system design matures and stabilizes closer to Critical Design Review (CDR), a detailed Core analysis, as well as the associated logistics capabilities and the associated sustaining workloads, will be updated and the results will be documented in a memorandum that will be issued to the Program at least six months prior to LRIP contract award, or MS C if the two events are scheduled closely.

15.39.F. Core is capability, not location; capability of the public/organic artisans in terms of direct labor hours, equipment, and facilities needed to accomplish the Program required depot-level maintenance and repair; and the sufficient workloads calculated to sustain that capability by maintaining the artisans' skills and ensuring the availability of the 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 since the Core or non-Core determination has a bearing on the maintenance support concept and follow-on budget exhibits. Disregard for the Title 10 requirements could render a Program non-compliant with the statutes and can impact the Milestone Decision Authority (MDA) approval to proceed to the next milestone without proper depot sustainment planning.

15.40. POC: Mai-Liem Slade, AIR-6.7.7.2, (301) 995-1935 or liem.slade@navy.mil

## CHAPTER XV: OTHER KEY TOPICS

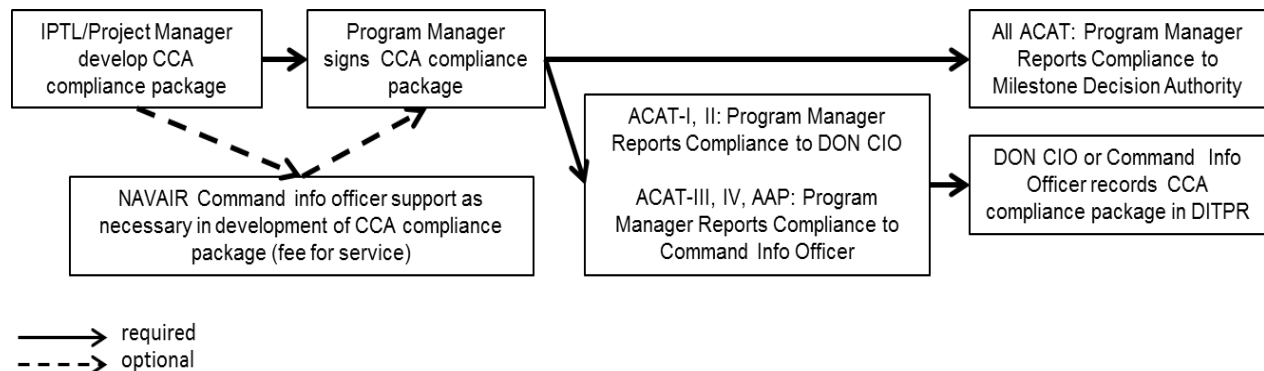
### PART H: CLINGER-COHEN COMPLIANCE AND NAVAIR INFORMATION TECHNOLOGY (IT) APPROVAL PROCESS

15.41. Clinger Cohen Act (CCA) compliance is acquisition documentation required for certain milestones in the acquisition lifecycle. Per DoD Instruction (DoDI) 5000.02 (7 Jan 15), CCA is statutory for all programs that acquire information technology and regulatory for all others. At the top level, it is a summary that demonstrates the program's documentation complies with the CCA.

15.42. DoDI 5000.02 requires that all acquisition programs develop a CCA compliance package for Milestone (MS) A, MS B, MS C, and for the Full Rate Production/Full Deployment life cycle events. CCA compliance is also required prior to contract award for that particular acquisition phase. The approved CCA package should be good for the entire acquisition phase in most cases. If a program requires an Acquisition Program Baseline (APB) update, the program office should also review the CCA certification package and determine if an update is required as well.

15.43. The program office is responsible for developing the CCA package just as they responsible for developing any other program documentation. The Clinger-Cohen Act (CCA) Compliance Table is derived from DoDI 5000.02 Enclosure 1 Table 9. The artifacts are program documents that speak to each of the 11 elements of CCA represented in Table 9. These requirements will be satisfied to the maximum extent practicable through documentation developed under the Joint Capabilities Integration and Development System and the Defense Acquisition System. The CCA compliance table lists acquisition documents typically cited for each element. However, other documents, actions, and/or events may be cited in lieu of, or in addition to, those listed above. Program documentation cited in Table 9 should be as close to final approval as possible. It is recommended that all cited documentation be at a very stable configuration, at a minimum, at the program manager level or higher. This will help avoid any rework with the CCA compliance letter if there are any substantial changes in the supporting documentation.

15.44. In accordance with DoDI 5000.02 (7 Jan 15), there is no longer approval of the CCA package. The Program Manager reports compliance to the Milestone Decision Authority (MDA) and Component Chief Information Officer or their designee. It is also recommended that the program's Procuring Contracting Officer (PCO) be included as a "copy to" on compliance letters to the MDA and appropriate CIO. For Major Defense Acquisition Programs (MDAP) MDAP, Major Automated Information System (MAIS) and ACAT-II programs, the Department of the Navy Chief Information Officer (DON CIO) is the recommended CCA compliance reporting office. For ACAT III, IVT, IVM, and AAP, programs, the NAVAIR Command Information Officer (AIR-7.2) is the recommended compliance reporting office. To report compliance, the program manager prepares a table similar to Table 9, Enclosure 1 of DoDI 5000.02 to indicate which documents demonstrate compliance with CCA requirements. The compliance letter and table demonstrating CCA compliance should be maintained and archived with all other program documentation. The graphic below shows the CCA Process Map.



15.45. For more information, please refer to the Acquisition Management System Knowledge Management Portal <https://myteam.navair.navy.mil/corpapps/ams/home/iacc/SitePages/default.aspx> for training information and CCA

compliance templates.

15.46. Responsibility for IT Oversight. Responsibility for Information Technology (IT) oversight is delineated in DoDI 5000.02, Operation of the Defense Acquisition System, Encl. 5 (IT Considerations), and SECNAVINST 5000.2E, Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System, Chapter 3 (IT Considerations).

15.47. NAVAIR Responsibility for IT Management, Approval, and Oversight of IT Acquisitions. NAVAIR office of Command Information Officer has been tasked with ensuring all IT procurements reported to Program Budget Information System-IT (PBIS-IT) or procuring DON Enterprise License Agreement (ELA) comply with NAVAIR, DoD, DON and Navy statutory and regulatory requirements. Compliance is managed via the Navy Information Dominance Approval System (NAV-IDAS), which is a CAC-enabled, Web-based, workflow tool managed by the office of the Deputy Department of the Navy Chief Information Officer for Navy (DDCIO(N)). Information Technology Procurement Requests (ITPRs) are processed in NAV-IDAS to ensure compliance in the areas of Clinger-Cohen Act (CCA), Cloud Computing, Enterprise Architecture (EA), Cybersecurity (CS), Multi-function Device (MFD), Section 508, Budget/PBIS-IT, DADMS, DITPR-DON, Enterprise License Agreement/Enterprise Software Initiative (ESL/ESI), Functional Area Manager (FAM), Office of the Secretary of Defense (OSD) certification, and the National Defense Authorization Act FY12 (NDAA-12). The NAV-IDAS URL is <https://navidas.navy.mil>.

15.47.A. Authority. On 1 October 2011, Space and Ware Command Headquarters San Diego was designated by the CNO as the single Information Technology Acquisition Approval Process for the Navy enterprise. ITAAP ensures effective and efficient expenditure of funding to acquire IT capabilities, prevent duplicative investments, provide visibility on all Navy IT-related expenditures, and ultimately achieve strategic sourcing for IT procurements. On 25 October 2011, the DON CIO designated DDCIO Navy as the Navy's Information Technology Expenditure Authority to promote effective and efficient expenditure oversight. On 15 November 2011, NAVADMIN 346/11 "Navy Information Technology Procurement for Approval and Oversight" was released to establish a single IT Procurement Review and oversight process to support the Navy IT way ahead and IT efficiencies efforts. NAVADMIN 327/12 "Information Technology Procurement Request Approval Process – Revised" was released in November 2012 amplifying policy for IT Procurement Request and the approval process. NAVADMIN, 295/13 "Information Technology Procurement Request Approval Process Fiscal Year 2014 Guidance" was released November 2013. The latest NAVADMIN, 177/14 "Information Technology Procurement Request Approval Process Fiscal Year 2015 Guidance" was released In August 2014.

15.47.B. What Requires an ITPR. The following applies to all IT assets including hardware, software, maintenance, contract support, and telecommunication services that are reported in the Program Budget Information System-IT (PBIS-IT) and resourced with Navy appropriated and non-appropriated funds. For ITPRs less than \$500K, the Echelon II Command Information Officer (CIO) retains discretion to set a local threshold amount for assigned Echelon III and below Commands. The ITAAP governance body will review all ITPRs of \$500K or greater and forward to DDCIO (N) for approval. ITPRs submitted for \$20M or greater require OPNAV N80 staff review. N80 shall, in coordination with DDCIO (N), recommend final approval or disapproval. If further review is required, OPNAV N80 shall present the request to the Resources Requirement Review Board (R3B) for a final procurement decision.

Procurement request must be submitted electronically via NAV-IDAS for:

- 1) Business Mission Area Programs and Non- Programs of Record software, hardware, maintenance and support services;
- 2) Fleet/Outside the Continental U.S. (OCONUS) network-centric IT assets (i.e., consolidated afloat network enterprise services (CANES) and OCONUS Navy enterprise network) including all support service contracts regardless of contract value;
- 3) Next Generation (NGEN) program management and network IT infrastructure;
- 4) Cryptologic (unclassified) IT systems including support service contracts regardless of contract value;
- 5) IT assets procurement using Military Intelligence Program (MIP) funds;
- 6) IT for industrial/base operating support (i.e., heating, ventilation, air conditioning, perimeter security, and anti-terrorism force protection) including all support service contracts regardless of contract value;

- 7) Ashore excepted network infrastructure assets including all support service contracts regardless of contract value;
- 8) Commercial-Off-the-Shelf and Government-Modified-Off-the-Shelf software;
- 9) Telecommunications, commercially supported handheld wireless communications devices, non-tactical radios and telecommunication service support contracts regardless of contract value;
- 10) Business IT that supports oversight and program management operations of program executive office, program manager warfare, or program manager air; and weapons systems support (i.e., portals, hardware, and software tools, engineering services, financial management, installation, and support service contracts regardless of contract value);
- 11) Research, Development, Test and Evaluation (RDTE) laboratory network infrastructure that supports weapon system replication, trainers, ranges, and simulators, including all service and staff support contracts regardless of contract value;
- 12) Small Business Innovative Research (SBIR) pilots/proofs of concept; and,
- 13) Bureau of Medicine and Surgery shipboard IT assets that support fleet force health protection operations, including all staff and service support contracts regardless of contract value.

Commands acting as executive agents for Department of Defense programs using non-Navy budget dollars to procure IT hardware, software, maintenance, support, or telecommunications in support of other DoD components or non-DoD agency programs *may* submit an ITPR for tracking purposes only. Expenditures for such requests will not be reported in the IT expenditure reporting summary.

15.47.C. What Does Not Require an ITPR Approval. The following are exempt/not included in the process:

- 1) Weapons and platform IT designated systems not reported in PBIS-IT (e.g., Command, Control, Computer, Communications, Intelligence, Surveillance, and Reconnaissance).
- 2) Expendables (e.g., paper, ink, toner, compact disc, digital video disc media, etc.)
- 3) NGEN priced and un-price contract line item numbers not associated with NGEN program management.
- 4) IT assets procured with National Intelligence Program (NIP) funds.
- 5) Consumable spare parts for computers (i.e., motherboards, removable internal/external disk drives, etc.).
- 6) Personnel IT training and subscriptions not reported in the IT budget.

ITPR Approval can be obtained in two ways:

- 1) ITPR request for an individual IT product or service via the NAV-IDAS tool at <https://navidas.navy.mil>. An account is required to submit an ITPR.
- 2) ITPR request for an IT Spend Plan submitted for annual consolidated projected IT procurements via the NAV-IDAS tool at <https://navidas.navy.mil>. *IT Spend Plans are the recommended approach because they reduce numerous individual ITPR Approvals.*

#### 15.47.D. Risks

- Contracts will not process IT-related procurements without NAVAIR office of Command Information Officer IT Approval.
- Lack of IT Approval may result in withholding or loss of funding, loss or delay of contract award and schedule delays until the program has obtained approval.
- Lack of IT Approval may result in disconnection from the Navy network environment.
- Noncompliance may result in Anti-Deficiency Act violation.

15.47.E. Instruction for Obtaining ITPR Approval. The NAV-IDAS tool, including all supporting documentation and user information is located on the NAV-IDAS Web site: <https://navidas.navy.mil>. All questions related to the NAV-IDAS tool and process should be directed to the NAVAIR National Help Desk at 301-342-3104 or 888-292-5919.

15.47.F. ITPR Fee. The ITPR process is a fee-based service. On 15 Nov 04, the Council of Competencies and Business Units (CCBU) and Council of Program Executive Officers (CPEO) agreed that NAVAIR office of Command Information Officer support functions are a critical part of the acquisition process in order to ensure all IT programs and capabilities meet Federal, DoD, and DON legal and regulatory requirements. As such, the CCBU/CPEO approved a model to run the ITPR portion of the Command Information Officer functions as a fee-for-service.

The following types of procurements are exempt from the ITPR Approval fee in FY16; ***however, Program Managers are still required to submit the procurement through the ITPR Approval process:***

- P-Card purchases
- Capital Improvement Program (CIP)(NAWCAD)
- MRTFB Institutional (NAWCAD)
- Procurements funded with CPP and NAWCAD NWCF overhead funds (NAWCAD)

15.47.G. IT Approval Authority Thresholds and Points of Contact. NAVAIR CIO has delegated IT Approval authority to local IT POCs at each site up to \$25,000. A current listing of site IT POCs is available on the NAVAIR Community of Interest within MyNAVAIR at <https://mynavair.navair.navy.mil/CIO>. Further, NAVAIR has designated Customer Service Representatives (CSRs) to assist with the processing of ITPRs. Contact information for NAV-IDAS CSRs is located on the NAV-IDAS Contact Us page at the following URL: <https://navidas.navy.mil/About/Contacts.aspx>

All ITPRs shall be submitted through NAV-IDAS. Furthermore, Deputy CIO for Information Resources Management (IRM) staff will review and approve all IT-related procurements entered in Navy ERP.

#### 15.48. Most Important Items to Remember

15.48.A. The Program Manager is responsible for submitting either an IT Spend or an Individual ITPR. IT POCs and Contracting Officers should ensure all IT procurements have proper ITPR approval and any IT-related contract should not be executed without proper ITPR approval. All Individual Work Plans (IWP) requests containing IT-related support services should not be approved without proper ITPR approval. If a contract contains IT resources (computer hardware, software, hardware maintenance, support services or telecommunications) it MUST receive ITPR approval prior to contract award. Failure to do so will result in the illegal award of an IT contract.

15.48.B. Prior to awarding an IT contract, Program Manager should 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 visit the DoD/DON web site at <http://www.esi.mil/contentview.aspx?id=604>.

15.48.C. Per ASN directive of 19 Oct 00 (available on the NAVAIR Office of CIO web site), IT contracts valued at \$250K or greater cannot be awarded without prior review/approval by a Flag/SES rank individual or his/her designated delegate.

15.49. POC: Information Resources Management Office, [NAVAIR\\_IRM@navy.mil](mailto:NAVAIR_IRM@navy.mil).

## CHAPTER XV: OTHER KEY TOPICS

### PART I: PERFORMANCE-BASED SERVICE ACQUISITION (PBSA)

#### 15.50. Source Documents:

Public Law 106-398, section 821

FAR 2.101, 37.102, 37.6, 7.105, 46.103, and 46.401(a)

Seven Steps to Performance-Based Service Acquisition: [http://159.142.160.6/comp/seven\\_steps/home.html](http://159.142.160.6/comp/seven_steps/home.html)

DFARS 237.170-2

NMCARS 5237.170-2(a)

NAVAIR Instruction 4200.62

#### 15.51. Discussion

15.51.A. 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. When acquiring services through a contract or task order that is not performance based, the rationale shall be documented in the contract file. Per DFARS 237.170-2, ASN (RDA) approval is required for non-performance-based acquisitions exceeding \$85.5M.

15.51.B. 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.

15.51.C. 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.

15.51.D. 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:

- a) A firm-fixed price performance-based contract or task order;
- b) A performance-based contract or task order that is not firm-fixed price; and,
- c) A contract or task order that is not performance-based.

15.51.E. In July 2003, the Office of Federal Procurement Policy (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 the 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).

15.51.F. 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.

15.51.G. 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, the Defense Acquisition University (DAU) offers Continuous Learning Course (CLC) Performance-Based Services Acquisition (CLC 013).

See <http://icatalog.dau.mil/>. In addition, OFPP maintains the “Seven Steps to Performance-Based Services Acquisition” [http://159.142.160.6/comp/seven\\_steps/home.html](http://159.142.160.6/comp/seven_steps/home.html), 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. Check out the “Library” for guidance and links to samples and examples.

15.52. POC: AIR-2.1.1.1, (301) 757-8953



## CHAPTER XV: OTHER KEY TOPICS

### PART J: MANAGEMENT AND OVERSIGHT PROCESS FOR THE ACQUISITION OF SERVICES (MOPAS) 2

#### 15.53. Background

MOPAS' major requirement is to develop an acquisition strategy document for non-program service acquisitions - this document is scalable based on the magnitude of the acquisition. Post award requirements are to ensure identification of these purchases (for review) and to ensure oversight of contractor performance through execution reviews.

15.53.A. Section 812 of the FY06 NDAA required USD (AT&L) to issue policies, procedures, and best practices for acquisition planning; solicitation and contract award; requirements development and management; contract tracking and oversight; performance evaluation and risk management associated with the acquisition of services.

15.53.B. OSD (AT&L) memo of 2 Oct 06 imposed on the military services this new congressional mandate, updating and superseding previous policy. DASN (ACQ) memo of 1 Dec 06 issued the DON Management and Oversight Process for the Acquisition of Services (Revised) (MOPAS 2). The DON MOPAS 2 retained the earlier acquisition management structure of the original DON MOPAS issued in 2003. The DON MOPAS 2 is implemented by NAVAIRINST 4200.62. In general, MOPAS policy requires an acquisition planning document, often referred to as a service acquisition strategy (AS) or MOPAS document, for all acquisitions of services exceeding \$150,000 except that the DON MOPAS 2/NAVAIR MOPAS 2 do not apply to major and non-major defense acquisition and information technology programs that are managed and reviewed under DoD/DON 5000 series documents. OSD 2 Oct 06 policy memo explicitly states that services acquisitions for such programs will be reviewed and approved within that (DoD/DON 5000 series documents) management structure. Hence, a program's services acquisitions should be planned within the program's Acquisition Strategy and approved by the program's Milestone Decision Authority. If not included in program level documentation, a standalone service AS is required for every services acquisition exceeding \$150,000.

15.53.C. SECNAVINST 5000.2E, Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System, incorporated the DON MOPAS requirements into Chapter 7, Acquisition of Services.

15.53.D. NAVAIRINST 4200.36E, Acquisition Plans (APs), address planning requirements for services acquisitions. Acquisitions of services that are part of a weapons system acquisition program or automated information systems (AIS) managed in accordance with DoDI 5000.02 and SECNAVINST 5000.2E shall be reviewed and approved as part of that program management process. Acquisition of services tied to programs that are not managed in accordance with DoDI 5000.02 and SECNAVINST 5000.2E, or have achieved full operational capability or have not received previous milestone reviews are still subject to the requirements of USD(AT&L) memo of 2 Oct 06, Acquisition of Services, DASN (ACQ) memo of 1 Dec 06, Acquisition of Services, and NAVAIRINST 4200.62. Approval of acquisitions of services not managed in accordance with DoD 5000.02 and SECNAVINST 5000.2E shall be obtained by: 1) developing a new, combined service AS and AP if the acquisition is \$50M or more; 2) updating an existing program AP/AS; or 3) developing a new, stand-alone service AS in accordance with MOPAS 2 requirements.

15.54. Purpose. MOPAS is intended to ensure that the acquisition of services within DON are strategic in nature, represent sound business practices, and comply with applicable laws, regulations, directives, and other requirements. A major objective is to promote performance based services acquisitions (see Chapter XV, Part I of this Guide) on a broader scale for small dollar value services acquisitions that are not a part of a major program. As such, DoD excluded services acquisitions that are managed as part of a weapon acquisition program or an automated information system being reviewed and approved under DoDI 5000.02 from complying with the detailed requirements of the MOPAS policy, but improved planning and oversight for the acquisition of services is a primary focus area of DoD efficiency objectives.

15.55. POC: Cognizant program contracting officer or AIR-2.1.1, (301) 757-8953.

## CHAPTER XV: OTHER KEY TOPICS

### PART K: TWO PASS/ SIX GATE PROCESS

#### 15.56. Source Documents:

DODD 5000.1

DoDI 5000.02

SECNAVINST 5000.2E

SECNAVINST 5420.188F

Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3170.01I, Joint Capabilities Integration and Development System, of 23 January 2015

Vice Chief of Naval Operations Memorandum 5420N09, Resources and Requirements Review Board (R3B) Charter of 25 July 2008

Commandant of the Marine Corps (CMC) Policy Memorandum 1-02, Marine Requirements Oversight Council (MROC) of 17 Jan 02

Under Secretary of Defense (AT&L) Memorandum, Configuration Steering Boards, of 30 Jul 07

Goldwater-Nichols Department of Defense Reorganization Act of 1986, PL 99-433, of 1 Oct 86

#### 15.57. Purpose

The Department of the Navy (DON) Requirements and Acquisition Process Improvements establishes a review process to improve governance and insight into the development, establishment, and execution of acquisition programs in the DON. The goal of the review process is to ensure alignment between Service-generated capability requirements and acquisition as well as improving senior leadership decision-making through better understanding of risks and costs throughout a program's development cycle. The Acquisition Process Improvements establishes a disciplined and integrated process for requirements and acquisition decision-making within DON. It will endorse or approve key Joint Capabilities Integration and Development System (JCIDS) and acquisition documents, and facilitate decisions regarding required Navy and Marine Corps capabilities and acquisition of corresponding materiel solutions.

#### 15.58. Discussion

The process will be implemented in an integrated, collaborative environment that includes participation by appropriate elements from the Office of the SECNAV, the Office of the Chief of Naval Operations (OPNAV), the Headquarters Marine Corps (HQMC), and activities involved in developing JCIDS and acquisition documents.

This applies to all pre-Major Defense Acquisition Program (MDAP) programs, all MDAP (Acquisition Category (ACAT) I) programs, all pre-Major Automated Information System (MAIS) programs, all MAIS (ACAT IA) programs, and selected ACAT II programs. The Gate reviews themselves and Service Milestone Program Decision Meetings (PDMs) or Program Reviews (PR) should be combined when appropriate as determined by the Secretary of the Navy (SECNAV), Chief of Naval Operations (CNO), Commandant of the Marine Corps (CMC) or designee. If Gate reviews and PDMs or PRs are combined, the acquisition requirements including statutory and regulatory documentation shall be satisfied and an Acquisition Decision Memorandum shall be issued by the Milestone Decision Authority.

#### 15.59. Gate Review Process

Pass 1. Pass 1 is led by CNO or CMC, and encompasses three requirements Gates. Pass 1 includes Gates 1, 2, and 3. Pass 1 is a process that starts prior to Material Development Decision (MDD), continues through the Materiel Solution Analysis Phase, and ends after Gate 3. All Pass 1 Gate reviews will review program health for satisfactory cost, risks, and budget adequacy.

Pass 2. Pass 2 is led by CAE except Gate 6 capability production document (CPD) chaired by CNO or CMC, and encompasses three acquisition Gates. Pass 2 includes Gates 4, 5, and 6. Pass 2 starts after Gate 3 and ends after Milestone B during the initial portion of the Engineering and Manufacturing Development (EMD) Phase. Follow-on Gate 6 reviews will occur during the pre- and post Milestone C, Full Rate Production (FRP) Decision Review (DR),

Sustainment and annual sufficiency reviews. All Pass 2 Gates reviews will review program health for satisfactory cost, risks, and budget adequacy.

15.60. Responsibilities

All DON organizations shall ensure successful achievement of all DON Requirements/Acquisition Gates for all pre-MDAP programs, all MDAP (ACAT I) programs, all pre-MAIS programs, all MAIS (ACAT IA) programs, and selected ACAT II programs.

15.61. Source Guidance

Guidance on DON Requirements and Acquisition Process Improvements can be found in SECNAVNOTE 5000, dated 26 February 2008.

15.62. POC: Lola Scott, AIR-1.1, (301) 757-7228

## CHAPTER XV: OTHER KEY TOPICS

### PART L: REVIEW FOR COMPLIANCE WITH ARMS CONTROL AGREEMENTS

#### 15.63. Source Documents:

DoD Directive 5000.01 of 12 May 2003  
DoD Directive 2060.1 of 9 Jan 01  
SECNAVINST 5000.2E  
SECNAVINST 5710.23C  
SECNAVINST 5420.188F

15.64. Purpose All DoD activities shall be fully compliant with international arms control treaties, agreements and U.S. Government policies. ASN (RDA) is responsible for DON arms control compliance. Arms control compliance requirements, obligations and constraints shall be considered as an integral part of DON [NAVAIR] acquisition processes and operations.

#### 15.65. Discussion

15.65.A. DON Program Managers, Program Executive Offices, and operational commanders face increasing scrutiny, both at home and abroad, regarding the compliance of their programs with international arms control treaties and agreements. It is DON policy that all DON [NAVAIR] programs and activities be fully compliant with such treaties and agreements.

15.65.B. A program may raise or appear to raise compliance concerns that could inadvertently waste valuable resources or even trigger a serious international incident if not properly addressed. Early identification of and response to arms control concerns is imperative to reduce programmatic risk.

15.65.C. ASN(RDA) designated the Director, Strategic Systems Programs (DIRSSP) as the Executive Agent for all Navy and Marine Corps arms control compliance and implementation functions. Under DIRSSP, the Naval Treaty Implementation Program (NTIP) is responsible for administering these functions. All systems developed or acquired by DON [NAVAIR] shall be reviewed by the DIRSSP via NTIP, with the advice of Navy Office of General Counsel, to ensure compliance with arms control agreements. The Compliance Assessment Program (CAP) is a component of NTIP, providing direct assistance at no cost to Program Managers by identifying and effectively responding to any arms control compliance concerns.

15.65.D. CAP supports the DON [NAVAIR] Program Manager by:

- Providing arms control treaty expertise to identify and mitigate program risk.
- Conducting comprehensive arms control compliance assessments of DON programs and activities at every stage of the acquisition life cycle, from research, development and acquisition to deployment at no cost to the program office.
- Conducting these assessments using existing program technical documentation, whenever possible, to minimize the burden on the Program Manager.

15.66. More information can be found at the NTIP Web site <http://www.ntip.navy.mil>, or contact Molly Brown, SPNT303 at: (202) 433-6824 or [SPNT303@ssp.navy.mil](mailto:SPNT303@ssp.navy.mil).

## CHAPTER XV: OTHER KEY TOPICS

### PART M: JOINT DEPOT MAINTENANCE PROGRAM (JDM)/ DEPOT SOURCE OF REPAIR (DSOR), OPNAVINST 4790.14B

15.67. Background. The Joint Depot Maintenance (JDM) program began back in 1974 to focus on consolidating commonly used systems and equipment to eliminate unnecessary duplication of depot capability. As the program continued into the 1980's, the focus was redirected from review of postured workloads to review of new acquisitions to achieve efficient and effective use of depot capability. The benefits of the Depot Maintenance Interservice (DMI)/Depot Source of Repair (DSOR) decision process are a solid and auditable process for DSOR Decisions, potential to minimize the unnecessary duplication of depot capability, and the potential to substantially reduce costs associated with depot stand-up.

15.68. Purpose. The Department of Defense (DoD) policy requires the program managers use the most effective sources of support for depot maintenance, organic or commercial, consistent with statutory and regulatory requirements and required military capability. These goals can be obtained through the DMI/DSOR decision process.

#### 15.69. Discussion

15.69.A. The governing directive for the JDM Program is OPNAVINST 4790.14B Joint Depot Maintenance Program. This instruction establishes policy and procedures for implementing the JDM Program and DMI/DSOR decision process uniformly in the Department of the Navy and in accordance with applicable policies of DoDD 4151.18, Maintenance of Military Materiel and DoDI 5000.02, Operation of the Defense Acquisition System for the Navy.

15.69.B. The DMI/DSOR decision process is a mandatory activity in logistics support planning for systems and equipment that will require depot maintenance. The DSOR decision process can and shall be initiated after a Core Determination has been rendered, to identified organic depot capability requirements, in accordance with Title 10 USC 2464.

15.69.C. The DMI/DSOR decision process is in compliance with DoDD 4151.18 by requiring all weapon systems, end items, systems, subsystems, equipment, or components with depot maintenance requirements, as defined by Title 10 USC 2460. Excluded from this process are hull, mechanical and electrical (HM&E) programs for ships and submarines. The OPNAVINST 4790.14B requirement for performing the DMI/DSOR decision process is applicable regardless of whether the Core Determination process determined there are organic depot capability requirements or not (i.e. requirement for performing the DMI/DSOR decision process is not dependent on whether it is determined Core or non-Core). The process must be performed if the planned depot maintenance meets any of the following criteria:

- a) New acquisitions, including modifications to existing items, regardless of the investment required.
- b) Existing depot repair programs planned for transition from contract to organic support, organic to contract support, or from organic to organic support, regardless of the investment required or the value of the program.
- c) Existing inter-Service depot repair program relationships planned for termination, regardless of reason, investment and cost required, or the value of the program.
- d) Existing depot repair programs for which a planned expansion of capability requires an additional capital expenditure of \$1.5 million or more.
- e) Existing depot repair programs planned for relocation (organic to organic), if the associated total expenditure required is \$1.5 million or more.
- f) Hull, Mechanical, and Electrical (HM&E) programs for ships and submarines are excluded from this process; however, shipboard electronics and ordnance are not.
- g) Programs with depot-level repairable (DLR) that go through a base realignment and closure (BRAC), or are moved by higher level direction will submit the DMI candidate information template to the Navy MISMO to maintain appropriate record keeping.

15.70. In compliance with DoDI 5000.02, DSOR decisions are to be completed No Later Than (NLT) 90 days after the Critical Design Review (CDR).

15.71. Commitment of funds leading to the establishment of a depot- capability shall not be made prior to the joint Service DSOR assignment decision in accordance with OPNAVINST 4790.14B.

15.72. POC: Dennis Steiger, AIR-6.7.7.1, (301) 995-1818 or [dennis.steiger@navy.mil](mailto:dennis.steiger@navy.mil).

## LIST OF ABBREVIATIONS AND ACRONYMS

|                     |  |
|---------------------|--|
| 3D                  | Deactivation, Demilitarization and Disposal  |
| A&AS                | Advisory and Assistance Services   |
| ACAT                | Acquisition Category   |
| ACC                 | Acquisition Community Connection   |
| ACO                 | Administrative Contracting Officer   |
| ADM                 | Acquisition Decision Memorandum  |
| AKSS                | Acquisition Knowledge Sharing System   |
| ALH                 | Acquisition Logistics Handbook   |
| ALSP                | Acquisition Logistics Support Plan   |
| AM                  | Acquisition Manager  |
| AMPS                | Afloat Master Planning System  |
| A <sub>o</sub>      | Operational Availability   |
| AoA                 | Analysis of Alternatives   |
| A <sub>m</sub>      | Materiel Availability  |
| AP                  | Acquisition Plan   |
| AAP                 | Abbreviated Acquisition Program  |
| AMS                 | Acquisition Management System  |
| AMPS                | Afloat Master Planning System  |
| ANSI                | American National Standards Institute  |
| APB                 | Acquisition Program Baseline   |
| APEO                | Assistant Program Executive Officer  |
| APEO (E)            | Assistant Program Executive Officer (Engineering)                                    |
| APEO(L)             | Assistant Program Executive Officer (Logistics)                                      |
| APML                | Assistant Program Manager for Logistics  |
| APMSE               | Assistant Program Manager for Systems & Engineering                                  |
| APMT&E              | Assistant Program Manager for Test & Evaluation                                      |
| APN                 | Aircraft Procurement, Navy   |
| ARB                 | Acquisition Review Board   |
| AS                  | Acquisition Strategy   |
| ASN(FM&C)           | Assistant Secretary of the Navy (Financial Management & Comptroller)                 |
| ASN(RD&A)           | Assistant Secretary of the Navy (Research, Development & Acquisition)                |
| ASN (RD&A)<br>CHENG | Assistant Secretary of the Navy (Research, Development & Acquisition) Chief Engineer |
| ASPRO               | Acquisition Systems Protection Officer   |
| ASR                 | Acquisition Strategy Report  |
| ASSIST              | Acquisition Streamlining & Standardization Information System                        |
| ASW                 | Anti-Surveillance Warfare  |
| ATC                 | Air Traffic Control  |
| AT&L                | Acquisition, Technology and Logistics  |
| ATWAP               | Acquisition Workforce Tuition Assistance Program                                     |
| BCA                 | Business Case Analyses   |
| BCP                 | Budget Change Proposal   |
| BES                 | Budget Estimate Submission   |
| BF                  | Battle Force   |
| BFI                 | Battle Force Interoperability  |
| BFIT                | Battle Force Interoperability Test   |
| BOA                 | Basic Ordering Agreement   |
| BPA                 | Blanket Purchase Agreement   |
| BRAC                | Base Relocation & Closure  |
| BRB                 | Baseline Review Board  |
| CAE                 | Component Acquisition Executive (same as SAE)  |
| CAC                 | Common Access Card   |
| CAO                 | Competency Aligned Organization  |
| CAP                 | Compliance Assessment Program  |

|              |   |
|--------------|---|
| CAPS & LIMS  | Capabilities and Limitations  |
| CARD         | Cost Analysis Requirements Description  |
| CARS         | Consolidated Acquisition Reporting System   |
| CASREP       | Casualty Report   |
| CASS         | Consolidated Automated Support System   |
| CBT          | Computer Based Training   |
| CCA          | Clinger-Cohen Act   |
| CCB          | Change Control Board or Configuration Control Board                                       |
| CCBU         | Council of Competencies and Business Units  |
| CCR          | Central Contractor Registration   |
| CC/S/A       | Combat Command/Staffs/Agencies  |
| CD           | Compact Disk  |
| CDD          | Capability Development Document   |
| CDR          | Critical Design Review  |
| CDRL         | Contract Data Requirements List   |
| CE           | Concept Exploration   |
| CFE          | Contractor Furnished Equipment  |
| CFFC         | Commander, Fleet Forces Command   |
| CHSENG       | Chief Systems Engineer  |
| CI           | Configuration Items   |
| CI           | Counterintelligence   |
| CIEL         | Common Information Element List   |
| CIO          | Chief Information Officer   |
| CICA         | Competition in Contracting Act  |
| CJCS         | Chairman of the Joint Chiefs of Staff   |
| CJCSI        | Chairman of the Joint Chiefs of Staff Instruction   |
| CJCSM        | Chairman of the Joint Chiefs of Staff Manual  |
| CL           | Continuous Learning   |
| CLA          | Core Logistics Analysis   |
| CLC          | Continuous Learning Courses   |
| CLIN         | Contract Line Item Number   |
| CM           | Configuration Management  |
| CMC          | Commandant of the Marine Corps  |
| CMP          | Configuration Management Plan   |
| CNAF         | Commander, Naval Air Forces   |
| CNATRA       | Chief of Naval Air Training   |
| CNO          | Chief of Naval Operations   |
| COAL         | Common Operational Activities List  |
| COE          | Center of Excellence  |
| COI          | Communities of Interest   |
| COMOPTEVFOR  | Commander, Operational Test and Evaluation Force  |
| COMNAVRESFOR | Commander, Naval Reserve Forces   |
| CONL         | Common Operation Node List  |
| CONOPS       | Concept of Operations   |
| COTS         | Commercial-Off-The-Shelf  |
| CPARS        | Contractor Performance Assessment Reporting System  |
| CPEO         | Council of Program Executive Officers   |
| CPD          | Capability Production Document (formerly part of Operational Requirements Document (ORD)) |
| CLF          | Commander in Chief, Atlantic Fleet  |
| CPF          | Commander-in-Chief, U.S. Pacific Fleet  |
| CPI          | Critical Program Information  |
| CRM          | Cross Reference Matrix  |
| CS           | Consulting Services   |
|              | Computer Software   |
| CSA          | Configuration Status Accounting   |
| CSB          | Configuration Steering Board  |
| CSG          | Carrier Strike Group  |



|           |   |
|-----------|---|
| CSI/CIM   | Critical Safety Item and Critical Item Management   |
| CSIT      | Combat System Interoperability Test   |
| CSFL      | Common Systems Function List  |
| CSL       | Common System List  |
| CSNL      | Common System Node List   |
| CSTAR     | Capstone System Threat Assessment Report  |
| CTE       | Critical Technology Elements  |
| CUI       | Controlled Unclassified Information   |
| CWP       | Contractor Work Plan  |
| CY        | Calendar Year   |
| C4I       | Command, Control, Communications, Computers, and Intelligence   |
| C4ISR     | C4I Support and Reconnaissance  |
| C5I       | Command, Control, Communications, Computers, Ships Combat System and Intelligence   |
| C5IMP     | Command, Control, Communications, Computers, Ships Combat System and Intelligence<br>Moderization Plan  |
| D         | Depot   |
| DAB       | Defense Acquisition Board   |
| DAE       | Defense Acquisition Executive   |
| DAG       | Defense Acquisition Guide   |
| DAMIR     | Defense Acquisition Management Information Retrieval  |
| DAP       | Defense Acquisition Portal  |
| DASD(MR)  | Deputy Assistant Secretary of Defense (Materiel Readiness)  |
| DASN      | Deputy Assistant Secretary of the Navy  |
| DASN(ACQ) | Deputy Assistant Secretary for Acquisition Management   |
| DASN(AP)  | Deputy Assistant Secretary of the Navy (Acquisition & Procurement)  |
| DAU       | Defense Acquisition University  |
| DAWIA     | Defense Acquisition Workforce Improvement Act   |
| DCAA      | Defense Contract Audit Agency   |
| DCMA      | Defense Contracts Management Agency   |
| DCNO      | Deputy Chief of Naval Operations  |
| DDA       | Designated Disclosure Authority   |
| DEP       | Distributed Engineering Board   |
| DER       | Data Exchange Requirement   |
| D&F       | Determination and Finding   |
| DFARS     | Defense Federal Acquisition Regulation Supplement   |
| DGSIT     | Deploying Group System Integration Test   |
| DIACAP    | DoD Information Assurance Certification and Accreditation Process   |
| DID       | Data Item Description   |
| DISA      | Defense Information System Agency   |
| DITPR-DON | Department of Defense Information Technology Portfolio Repository-Department of the Navy  |
| DITSCAP   | Department of Defense Information Technology Security Certification and Accreditation<br>Process (DIACAP replaced the former process, known as DITSCAP) |
| DLA       | Defense Logistics Agency  |
| DMI       | Depot Maintenance Interservice  |
| DMR       | Defense Management Report   |
| DNET      | Defense Network   |
| DoD       | Department of Defense   |
| DoDAF     | Department of Defense Architecture Framework  |
| DoDD      | Department of Defense Directive   |
| DoDI      | Department of Defense Instruction   |
| DoDIG     | Department of Defense Office of Inspector General   |
| DOL       | Director of Logistics   |
| DON       | Department of the Navy  |
| DOORS     | Data Object Oriented Repository System  |
| DOT&E     | Director, Operational Test & Evaluation   |
| DPAP      | Defense Procurement and Acquisition Policy  |
| DPPG      | Defense Program and Planning Guidance   |
| DR        | Decision Review   |

|           |   |
|-----------|---|
| DRB       | Defense Resources Board/Design Review Board         |
| DRPM      | Direct Reporting Program Manager                    |
| DRRA      | Data Rights Requirements Analysis                   |
| DRRB      | Data Requirements Review Board                      |
| DSOR      | Depot Source of Repair                              |
| DT        | Developmental Testing                               |
| DT&E      | Development Test & Evaluation                       |
| EA        | Economy Act   |
| EAC       | Estimates at Completion                             |
| EACB      | Enterprise Architecture Coordination Board          |
| ECCB      | Electronic Configuration Control Board              |
| ECP       | Engineering Change Proposal                         |
| EDT       | Externally Directed Teams                           |
| eDACM     | Electronic Defense Acquisition Career Manager       |
| EEC       | Environmental Enabling Capabilities                 |
| EEC2      | Range Sustainment                                   |
| EEC3      | Weapon System Sustainment                           |
| EEC4      | Ship-to-shore Interface; Air and Port Operations    |
| EEC5      | Regulatory and Base Operations                      |
| EIA       | Electronic Industries Alliance                      |
| EMD       | Engineering & Manufacturing Development (also E&MD) |
| EMI       | Electromagnetic Interference                        |
| EO        | Executive Order                                     |
| EOB       | Expense Operating Budget                            |
| ERP       | Enterprise Resource Planning                        |
| ESA       | Environmental System Allocation                     |
| ESG       | Expeditionary Strike Group                          |
| ESH       | Environmental Safety, Health                        |
| ESOH      | Environmental Safety and Occupational Health        |
| ESR       | Executive Strategy Review                           |
| ET        | Enterprise Team                                     |
| ETAB      | Estimating Technical Assurance Board                |
| ETS       | Engineering and Technical Services                  |
| EVM       | Earned Value Management                             |
| EVMS      | Earned Value Management System                      |
| FAQ       | Frequently Asked Questions                          |
| FAR       | Federal Acquisition Regulations                     |
| FC        | Flight Clearance                                    |
| FCRR      | Final Certification Readiness Review                |
| FDNF      | Forward Deployed Naval Forces                       |
| FedBizOPs | Federal Business Opportunities.                     |
| FLTCOM    | Fleet Commander                                     |
| FMB       | Financial Management and Budget                     |
| FMS       | Foreign Military Sales                              |
| FOCSR     | Full Operational Capability Supportability Review   |
| FOM       | Figure of Merit                                     |
| FORCenet  | US Navy Enterprise Network                          |
| FRC       | Fleet Readiness Center                              |
| FRP       | Full Rate Production                                |
| FST       | Fleet Support Team                                  |
| FY        | Fiscal Year   |
| FYDP      | Future Year Defense Program                         |
| F3I       | Form, Fit, Function Interface                       |
| GAO       | General Accounting Office                           |
| GENSER    | General Service                                     |
| GFE       | Government Furnished Equipment                      |
| GFI       | Government Furnished Information                    |
| GFP       | Government Furnished Property                       |

|          |   |
|----------|---|
| GSA      | Government Services Administration                                    |
| GSE      | Ground Support Equipment  |
| HAT      | Hazardous Material Authorized Use List Analysis Tool                  |
| HBCU/MI  | Historically Black College and University/Minority Institutions       |
| HM       | Hazardous Materials   |
| HMAUL    | Hazardous Material Authorized Use List                                |
| HM&E     | Hull, Mechanical and Electrical                                       |
| HQMC     | Headquarters Marine Corps   |
| HSI      | Human-System Integration  |
| HUBZone  | Historically Underutilized Business Zone                              |
| HW       | Hazardous Waste   |
| HWIL     | Hardware in the Loop  |
| I        | Intermediate  |
| IA       | Information Assurance   |
| IAS      | Information Assurance Strategy  |
| IAW      | In Accordance With  |
| IBR      | Integrated Baseline Review  |
| ICD      | Initial Capabilities Document (formerly Mission Need Statement (MNS)) |
| ICE      | Independent Cost Estimate   |
| ICRR     | Initial Certification Readiness Review                                |
| IDIQ     | Indefinite Delivery & Indefinite Quantity                             |
| IEEE/EIA | Electrical and Electronic Engineers/Electronic Industries Alliance    |
| IER      | Information Exchange Requirement                                      |
| IFF      | Identification Friend or Foe  |
| IIWG     | Integration and Interoperability Working Group                        |
| I&L      | Installation and Logistics  |
| ILA      | Independent Logistics Assessment                                      |
| ILS      | Integrated Logistics Support  |
| IMP      | Integrated Master Plan  |
| IMS      | Integrated Master Schedule  |
| IOC      | Initial Operating Capability  |
| IOCSR    | Initial Operating Capability Supportability Review                    |
| IP       | Intellectual Property   |
| IPCD     | Initial Platform Certification Decision                               |
| IPM      | Initial Planning Meeting  |
| IPPD     | Integrated Product and Process Development                            |
| IPR      | Interdepartmental Purchase Request                                    |
| IPT      | Integrated Program Team/Integrated Product Team                       |
| IPTL     | Integrated Program Team Lead/Integrated Product Team Lead             |
| IPS      | Integrated Program Schedule   |
| IPS      | Integrated Logistics Support  |
| IRM      | Information Resource Management                                       |
| ISP      | Information Support Plan  |
| IT       | Information Technology  |
| IWP      | Individual Work Plans   |
| J&A      | Justification & Approval  |
| JCD      | Joint Capabilities Document   |
| JCIDS    | Joint Capabilities Integration & Development System                   |
| JCPAT-E  | Joint C4I Program Assessment Tool - Empowered                         |
| JCS      | Joint Chiefs of Staff   |
| JDM      | Joint Depot Maintenance   |
| JITC     | Joint Interoperability Test Command                                   |
| JPD      | Joint Planning Document   |
| JPG      | Joint Planning Guidance   |
| JROC     | Joint Requirements Oversight Council                                  |
| KM/DS    | Knowledge Management/Decision Support                                 |
| KMS      | Knowledge Management System   |
| KPP      | Key Performance Parameters  |

|              |  |
|--------------|--|
| KSA          | Key System Attribute   |
|              | Key Support Areas  |
| LA           | Logistics Assessment   |
| LAN          | Local Area Network   |
| LCC          | Life Cycle Cost  |
| LCCE         | Life Cycle Cost Estimate   |
| LCCSP        | Life Cycle Sustainment Plan                                      |
| LEM          | Logistics Element Manager  |
| LICN         | Local Item Control Number  |
| LMI          | Logistics Management Information                                 |
| LM           | Logistics Manager  |
| LOA          | Line of Accounting   |
| LRB          | Legal Review Board   |
| LRFS         | Logistics Requirements Funding Summary                           |
| LRIP         | Low Rate Initial Production                                      |
| LSA          | Logistics Support Analysis                                       |
| M&S          | Modeling & Simulation  |
| MAIS         | Major Automated Information System                               |
| MARCORSYSCOM | Marine Corps Systems Command                                     |
| MC/ME        | Mission Critical/Mission Essential                               |
| MCOTEA       | Marine Corps Operational Test & Evaluation Agency                |
| MDA          | Milestone Decision Authority                                     |
| MDD          | Material Development Decision                                    |
| MDAPS        | Major Defense Acquisition Program                                |
| ME           | Manufacturing Engineering  |
| MEU          | Marine Expeditionary Unit  |
| MGFEL        | Master Government Furnished Equipment List                       |
| MID          | Management Initiative Decision                                   |
| MILSTRIP     | Military Standard Requisitioning and Issue Procedures            |
| MIPR         | Military Interdepartmental Purchase Request                      |
| MIWRG        | Mine Warfare Readiness Group                                     |
| MNS          | Mission Need Statement   |
| MOA/U        | Memorandum of Agreement/Understanding                            |
| MOPAS        | Management and Oversight Process for the Acquisition of Services |
| MRL/MRA      | Manufacturing Readiness Level and Assessments                    |
| MROC         | Marine Requirements Oversight Council                            |
| MS           | Milestone  |
|              | Mission Support  |
| MSA          | Management System Assessment                                     |
| MSS          | Management and Professional Support Services                     |
| MW           | Modernization Window   |
| NAICS        | North American Industrial Classification Standard                |
| NAMP         | Naval Aviation Maintenance Procedure                             |
| NAVAIR       | Naval Air Systems Command  |
| NAVAIRHQ     | Naval Air System Command Headquarters                            |
| NAVAIRINST   | Naval Air Systems Command Instruction                            |
| NAVAIRSYSCOM | Naval Air Systems Command  |
| NAVCOMPT     | NAVAIR Comptroller   |
| NAVICP       | Naval Inventory Control Point                                    |
| NAVSEA       | Naval Sea Systems Command  |
| NAVSUP       | Naval Supply Systems Command                                     |
| NAWC         | Naval Air Warfare Center   |
| NAWCAD       | Naval Air Warfare Center Aircraft Division                       |
| NAWCWD       | Naval Air Warfare Center Weapons Division                        |
| NCEE         | Naval Collaborative Engineering Environment                      |
| NCCM         | Naval Networks and FORCENet C5I Modernization Conference         |
| NCTSI        | Navy Center for Tactical Systems Interoperability                |
| NCW          | Network Centric Warfare  |

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| NDA        | National Defense Authorization Act   |
| NDE-NM     | Navy Data Management-Navy Modernization  |
| NDI        | Non-Developmental Item   |
| NEPA       | National Environmental Policy Act  |
| NETWARCOM  | Naval Network Warfare Command  |
| NFHP       | Navy Flying Hour Program   |
| NKO        | Navy Knowledge Online  |
| NICN       | National Identification Control Number   |
| NIIN       | National Item Identification Number  |
| NIPRNET    | Unclassified but Sensitive Internet Protocol Router Network                        |
| NMCARS     | Navy Marine Corps Acquisition Regulation Supplement                                |
| NMCI       | Navy-Marine Corps Intranet   |
| NMS        | National Military Strategy   |
| NNFE       | Naval Network and ForceNet Enterprise  |
| NR         | Non-Recurring  |
| NR-KPP     | Net-Ready Key Performance Parameter  |
| NSERC      | Naval Systems Engineering Resource Center  |
| NSN        | National Stock Number  |
| NSS        | National Security Systems  |
| NTIP       | Naval Treaty Implementation Program  |
| NWCF       | Navy Working Capital Fund  |
| O          | Organizational   |
| OAG        | Operational Advisory Group   |
| OAR        | Open Air Range   |
| OASD       | Office of the Assistant Secretary of Defense                                       |
| OASD(A&I)  | Office of the Assistant Secretary of Defense (Architecture and Interoperability)   |
| OASD(NII)  | Office of the Assistant Secretary of Defense (Network and Information Integration) |
| OASD(RD&A) | Office of the Assistant Secretary of Defense (Research, Development & Acquisition) |
| OCSR       | Organizational Computer Security Representative                                    |
| ODS        | Ozone Depleting Substance  |
| OEM        | Original Equipment Manufacturer  |
| OFPP       | Office of Federal Procurement Policy   |
| O&MN       | Operations & Maintenance Navy (appropriation) (O&MNR is O&M for the Naval Reserve) |
| OMB        | Office of Management and Budget  |
| OPN        | Other Procurement, Navy  |
| OPNAV      | Office of the Chief of Naval Operations  |
| OPR        | Office of Primary Responsibility   |
| OPSEC      | Operation Security   |
| OR         | Operational Requirement  |
| ORD        | Operational Requirements Document  |
| OSBP       | Office of Small Business Programs  |
| OSD        | Office of the Secretary of Defense   |
| OSIP       | Operational Safety Improvement Program   |
| O&S        | Operational and Support  |
| OT         | Operational Testing  |
| OTA        | Operational Test Agency  |
| OT&E       | Operational Test & Evaluation  |
| OTRR       | Operational Test Readiness Review  |
| OV         | Operational View   |
| PACMEF     | Pacific Fleet Middle East Force  |
| PB         | Presidential Budget  |
| PBA        | Performance Based Agreement  |
| PBCLS      | Performance Based contractor logistics support                                     |
| PBD        | Program Budget Decision  |
| PBL        | Product Baseline   |
|            | Performance Based Logistics  |
| PBSA       | Performance Based Service Acquisition  |
| PANMC      | Procurement of Ammo, Navy and Marine Corps   |

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| PCA       | Physical Configuration Audit   |
| PCD       | Platform Certification Decision  |
| PCO       | Procurement Contracting Officer  |
| PCP       | Program Change Proposal  |
| PCR       | Procurement Center Representative                                      |
| PDM       | Program Decision Meeting   |
| PDM       | Program Decision Memorandum  |
| PDR       | Preliminary Design Review  |
| PDF       | Portable Document Format   |
| PEO       | Program Executive Officer  |
| PEO(A)    | Program Executive Officer Assault and Special Mission                  |
| PEO(T)    | Program Executive Officer Tactical Aircraft Programs                   |
| PEO(U&W)  | Program Executive Officer Unmanned Aviation and Strike Weapons         |
| PEO(JSF)  | Program Executive Officer Joint Strike Fighter                         |
| PESHE     | Programmatic Environmental, Safety, and Occupational Health Evaluation |
| PESHE DAT | PESHE Document Authoring Tool  |
| PFCP      | Program Funding Change Proposal  |
| PGI       | Procedures, Guidance and Information                                   |
| PHST      | Packaging, Handling, Storage, and Transportation                       |
| PID       | Procurement Initiation Document  |
| PM        | Program Manager  |
| PMA       | Program Manager, Air   |
| PMB       | Performance Measurement Baseline                                       |
| PMS       | Program Manager Ship   |
| PMT       | Procurement Management Tool  |
| PN        | Procurement Number   |
| PO        | Project Order  |
| POA&M     | Plan of Actions & Milestones   |
| POC       | Points of Contact  |
| POM       | Program Objectives Memorandum  |
| POPL      | Program Office Protection Lead   |
| PoPs      | Probability of Program Success   |
| PPA       | Procurement Planning Agreement   |
| PPBE      | Planning, Programming & Budgeting and Execution                        |
| PPBS      | Planning, Programming, and Budgeting System                            |
| PPIP      | Program Protection Implementation Plan                                 |
| PPC       | Procurement Planning Conference  |
| PPL       | Preferred Product List   |
| PPP       | Program Protection Plan  |
| PR        | Procurement Request  |
|           | Program Review   |
| PSI       | Product Support Integrator   |
| PSM       | Process Safety Manager   |
| PSP       | Product Support Provider   |
| PST       | Product Support Team   |
| PT        | Procurement Team   |
| P2        | Pollution Prevention   |
| QA        | Quality Assurance  |
| QASP      | Quality Assurance Surveillance Plan                                    |
| QDR       | Quadrennial Defense Review   |
| QDR       | Quality Deficiency Report  |
| QPL       | Qualified Parts List   |
| RAMECS    | Rapid Action Minor Engineering Changes                                 |
| R&D       | Research and Development   |
| RCP       | Request for Contractual Procurement                                    |
| RDA       | Research Development and Acquisition                                   |
| RDC       | Rapid Deployment Capability  |
| RDT&E     | Research, Development, Test & Evaluation                               |

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|--------------|---|
| RDT&E,N      | Research, Development, Test & Evaluation Navy (appropriation)   |
| RFD          | Request for Minor & Major Deviation                             |
| RFI          | Request for Information   |
| RFM          | Requiring Financial Manager                                     |
| RFP          | Request for Proposal  |
| RM           | Requiring Manager   |
| RM           | Risk Management   |
| RMB          | Risk Management Board   |
| RMP          | Risk Management Plan  |
| RMD          | Resource Management Decision                                    |
| R&M          | Reliability and Maintainability                                 |
| ROM          | Rough Order of Magnitude  |
| ROR          | Repair of Repairables   |
| RSS          | Really Simple Syndication                                       |
| R3B          | Requirements Resources Review Board                             |
| SA           | Supportability Analysis   |
| SAE          | Service Acquisition Executive                                   |
| SAMP         | Single Acquisition Management Plan                              |
| SAS          | Supportability Analysis Summaries                               |
| SB           | Small Business  |
| SBA          | Small Business Administration                                   |
| SBIR         | Small Business Incentive Research                               |
| SCD          | Ship Change Document  |
| SCM          | Supply Chain Management   |
| SD&D         | System Development & Demonstration                              |
| SDREN        | Secret Defense Research and Engineering Network                 |
| SDVOSB       | Service Disabled Veteran Owned Small Business                   |
| SE           | Systems Engineering   |
| SECNAV       | Secretary of the Navy   |
| SECNAVINST   | Secretary of the Navy Instruction                               |
| SEI          | Software Engineering Institute                                  |
| SEMP         | System Engineering Management Plan                              |
| SEP          | Systems Engineering Plan  |
| SERC         | System Engineering Resource Center                              |
| SES          | Senior Executive Service  |
| SETR         | System Engineering Technical Review                             |
| SHIPALT      | Ship Alterations  |
| SID          | Ship Installation Drawing                                       |
| SIPRNET      | Secure Internet Protocol Network                                |
| SIS          | Software Intensive System                                       |
| SME          | Subject Matter Expert   |
| SOF          | Statement of Functionality                                      |
| SOO          | Statement of Objectives   |
| SORA         | Source of Repair Analysis                                       |
| SOVT         | System Operational Verification Testing                         |
| SOW          | Statement of Work   |
| SPAWARSYSCOM | Space and Naval Warfare Systems Command                         |
| SPG          | Strategic Planning Guidance                                     |
| SPI/IDM      | Strategic Planning Imperatives for Industrial Depot Maintenance |
| SPP          | Sponsor Program Proposal  |
| SPS          | Standard Procurement System                                     |
| SQL          | Structured Query Language                                       |
| SQT&E        | Software Qualification Test & Evaluation                        |
| SRA          | Scheduled Risk Assessment                                       |
| SRR          | Systems Requirements Review                                     |
| SSA          | Source Selection Authority                                      |
| SSAC         | Source Selection Advisory Council                               |
| SSEB         | Source Selection Evaluation Board                               |

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| SSIL      | System/Subsystem Interface List  |
| SSO       | Source Selection Office  |
| SSP       | Source Selection Plan  |
| SV        | Systems & Services View  |
| SWP       | Standard Work Package  |
| SYSCOM    | Systems Command  |
| TAA       | Team Assignment Agreement  |
| TADIL     | Tactical Data Link   |
| TCD       | Target Configuration Date  |
| TD        | Technical Directive  |
|           | Technology Development   |
| TDP       | Technical Data Package   |
|           | Technology Development Phase   |
| TDS       | Technology Development Strategy  |
| T&E       | Test and Evaluation  |
| TEIN      | Test and Evaluation Identification Number  |
| TEMP      | Test and Evaluation Master Plan  |
| TISP      | Tailored Information Support Plan  |
| TLCM      | Total Life Cycle Management  |
| TR        | Trouble Report   |
| TYCOMs    | Type Commanders (Commander in Chief, U.S. Atlantic Fleet;<br>Commander in Chief, U.S. Pacific Fleet; and Commander in<br>Chief, U.S. Naval Forces, Europe) |
| USD(AT&L) | Under Secretary of Defense (Acquisition, Technology, & Logistics)  |
| USMC      | United States Marine Corps   |
| VE        | Value Engineering  |
| VECP      | Value Engineering Change Proposal  |
| VOSB      | Veteran Owned Small Business   |
| WBS       | Work Breakdown Structure   |
| WCF       | Working Capital Fund   |
| WIPT      | Working Integrated Product Team  |
|           | Working-level Integrated Product Team  |
| WOSB      | Woman-Owned Small Business   |
| WPN       | Weapons Procurement, Navy  |
| WR        | Work Request   |
| WSESRB    | Weapons System Explosive Review Board  |
| WSI2T     | Weapons System Integration and Interoperability Testing  |