



Acquisition Directorate

Major Systems Acquisition Manual (MSAM)

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COMDTINST M5000.10C

January 30, 2013

COMMANDANT INSTRUCTION MANUAL 5000.10C

Subj: MAJOR SYSTEMS ACQUISITION MANUAL (MSAM)

Ref: (a) Department of Homeland Security Acquisition Management Directive DHS 102-01 (b) Department of Homeland Security Acquisition Management Instruction/Guidebook DHS 102-01-001

- 1. PURPOSE. To establish policy, procedures and provide guidance for the implementation of the Department of Homeland Security (DHS) Acquisition Management and Review Process detailed in Reference (a).
2. ACTION. All Coast Guard unit commanders, commanding officers, officers-in-charge, deputy/assistant commandants, and chiefs of headquarters staff elements shall comply with the provisions of this Manual. Internet release authorized.
3. DIRECTIVES AFFECTED. The Major Systems Acquisition Manual (MSAM), COMDTINST M5000.10B, is cancelled.
4. DISCUSSION. This Manual defines the policy and process for major systems acquisition projects. Detailed procedures are provided for applying a uniform and disciplined approach to acquisition planning and project management from mission analysis and requirements generation through design, development, production, and deployment.
5. PROCEDURE.
a. Individual major acquisition projects should implement policy changes introduced in this Manual prior to their next formal Acquisition Decision Event, but not later than six months from the date of this Manual. Documents already in concurrent clearance review may continue without implementation of policy changes unless they are needed for compliance with Reference (a) or as required by law.

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Table with 26 columns (a-z) and 8 rows (A-H). Cell B-a contains 'X'.

NON-STANDARD DISTRIBUTION:

- b. Requests for exceptions to this Manual shall be submitted through the Coast Guard Acquisition Review Board Executive Secretary, Commandant (CG-924). Requests shall contain sufficient detail to clearly explain the basis of the request, policies to be waived, and the recommended alternative action. Waivers of policy will be approved by Commandant (CG-9).

6. MAJOR CHANGES.

- a. The purpose of this revision is to align Coast Guard major acquisition policy with DHS acquisition management policy and processes established in References (a) and (b) to continuously improve the policies and procedures applicable to major acquisitions.
- b. The MSAM Handbook (Appendix A) is no longer included as part of this Manual. The MSAM Handbook contains, as before, guidance and templates for MSAM documentation, as well as guidance on delivering acquisition project briefings for Coast Guard and DHS annual reviews and Acquisition Decision Event (ADE) reviews. The MSAM Handbook is available at the Office of Acquisition Support (CG-924) CGPortal page: <https://cgportal2.uscg.mil/units/cg9/2/4/AcqSupportCentral/Pages/default.aspx>.

7. REQUEST FOR CHANGES. This Manual and the MSAM Handbook are under continual review and will be updated as necessary. Recommendations for improvement or corrections to this Manual and/or the MSAM Handbook shall be submitted directly to Commandant (CG-924).

8. DISCLAIMER. This document is intended to provide operational requirements for Coast Guard personnel and is not intended to nor does it impose legally-binding requirements on any party outside the Coast Guard.

9. RECORDS MANAGEMENT CONSIDERATIONS. This Manual has been thoroughly reviewed during the directives clearance process, and it has been determined there are no further records scheduling requirements, in accordance with Federal Records Act, 44 U.S.C. 3101 et seq., National Agency for Records Administration (NARA) requirements, and Information and Life Cycle Management Manual, COMDTINST M5212.12 (series). This policy does not have any significant or substantial change to existing records management requirements.

10. ENVIRONMENTAL ASPECT AND IMPACT CONSIDERATIONS. Environmental considerations under the National Environmental Policy Act (NEPA) were examined in the development of this Manual. This Manual includes preparation of acquisition documents that implement, without substantive change, the applicable Commandant Instruction or other Federal agency regulations, procedures, manuals, and other guidance documents. It is categorically excluded from further NEPA analysis and documentation requirements under Categorical Exclusion 33 as published in NEPA Implementing Procedures and Policy for Considering Environmental Impacts, COMDTINST M16475.1 (series). An Environmental Checklist and Categorical Exclusion Determination are not required.

11. FORMS/REPORTS. The forms referenced in this Manual are available in USCG Electronic Forms on the Standard Workstation or on the Internet: <http://www.uscg.mil/forms/>; CGPortal at <https://cgportal.uscg.mil/delivery/Satellite/uscg/References>; and Intranet at <http://cgweb.comdt.uscg.mil/CGForms>.

J. H. Korn /s/
Assistant Commandant for Acquisition

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CHAPTER 1: INTRODUCTION**A. Manual Organization**

This Manual documents the process and identifies the procedures for implementing Reference (a). Major System Acquisition procedures are outlined in Chapters 1 through 8 of this Manual.

Chapter 1: Introduction

This introductory Chapter lays out the organization of this Manual and provides an overview of the Coast Guard Acquisition Directorate (CG-9). This Chapter also spells out the roles and responsibilities of key acquisition members and outlines the acquisition work force training and certification requirements.

Chapter 2: Major Systems Acquisition Management

This Chapter discusses the process governing Coast Guard Major Systems Acquisitions.

Chapter 3: Systems Engineering Life Cycle

This Chapter highlights the process and requirements of the Systems Engineering Life Cycle (SELC) framework to efficiently and effectively develop and deliver new capabilities to operational users. The SELC guides the definition, execution, and management of an interdisciplinary set of tasks and formal reviews required to plan, define, design, develop, implement, operate and dispose of systems.

Chapter 4: Requirements Generation

This Chapter addresses the activities that are conducted to assess mission areas and identify mission needs prior to the designation of the project as a Major System Acquisition. It also addresses the requirements definition process conducted once a project has been so designated.

Chapter 5: Project Management Planning

This Chapter discusses the documents that are required as a part of the Major Systems Acquisition management process.

Chapter 6: Capital Investment Planning

This Chapter provides an overview of the Coast Guard Planning, Programming, Budgeting, and Execution process (PPBE); the OMB Exhibit 300; and an overview of the DHS investment review process.

Chapter 7: Reports and Reviews

This Chapter identifies the specific reports and reviews that are required as part of the knowledge-based management process to keep senior management aware of project performance.

Chapter 8: Document Review and Approval Process

This Chapter promulgates guidance on developing Major Systems Acquisition documentation and preparation for Coast Guard and DHS review and approval processes.

NOTE: The MSAM Handbook (Appendix A) is no longer included as part of this Manual. The MSAM Handbook contains as before, guidance and templates for MSAM documentation, as well as guidance on delivering briefings for Coast Guard and DHS annual reviews and ADE reviews. The MSAM Handbook is available at the Office of Acquisition Support (CG-924) CGPortal page:

<https://cgportal2.uscg.mil/units/cg9/2/4/AcqSupportCentral/Pages/default.aspx>

B. Coast Guard Acquisition Directorate

The Coast Guard Acquisition Directorate (CG-9) was established in July 2007 with the merger of the former Coast Guard Acquisition Directorate (G-A) and the Coast Guard Deepwater Directorate (G-D). Commandant (CG-9) was formed to provide a single point of management and to act as the systems integrator for all Coast Guard Major Systems Acquisitions. Commandant (CG-9) also ensures that the processes and procedures identified in this Manual are properly leveraged to obtain capable, supportable, affordable and sustainable systems. In support of this objective, the Assistant Commandant for Acquisition, also known as the Chief Acquisition Officer (CAO), has defined the Directorate's Mission and Vision as follows:

Mission

Acquire and deliver more capable, interoperable assets and systems, and high quality, timely services that support Coast Guard forces in executing missions effectively and efficiently.

Vision

The Coast Guard will be a model of acquisition excellence in government.

1. Major Systems Acquisition Manual Objectives

Major acquisition assets and systems are acquired using a disciplined project management approach and structured methodology derived from the processes and procedures detailed in this Manual and the MSAM Handbook.

This Manual defines the policies and procedures for Project Managers (PMs) and their staffs to plan, coordinate, and execute major systems acquisition projects.

Objectives
Reduce the acquisition cycle to field useable, affordable, sustainable, and technically mature discrete segments of capability
Manage major acquisition projects using a systems engineering approach that

Objectives
optimizes total system performance and minimizes total ownership costs
Develop cost estimates that document realistic life cycle costs with sufficient accuracy, rigor and confidence to enhance our credibility with DHS, Congress, and the American taxpayer
Reestablish Coast Guard technical authority and practice to serve as system integrator for all acquisition projects
Develop major systems acquisition processes and procedures that are flexible, responsive, and allow PMs to exercise innovation and creativity to deliver systems, products, and services to our customers in a timely manner
Align Coast Guard major acquisition process with the DHS acquisition management policy established in Reference (a)

2. Acquisition Knowledge

The websites below provide up-to-date acquisition information useful to the acquisition workforce:

- Federal Acquisition Regulations (FAR), specifically including FAR Part 34, Major System Acquisition: <http://www.acquisition.gov/far/>;
- Department of Defense (DOD) Acquisition, Technology and Logistics (AT&L) Portal: <https://dap.dau.mil>;
- DHS Connect: <http://dhsconnect.dhs.gov/org/comp/mgmt/parm/Pages/default.aspx>; and
- Office of Acquisition Support (CG-924) Coast Guard Portal site: <https://cgportal2.uscg.mil/units/cg9/2/4/AcqSupportCentral/Pages/default.aspx>.

C. Coast Guard Acquisition Team

Coast Guard Acquisition includes the conceptualization, initiation, design, development, integration, testing, contracting, production, deployment or fielding, logistics support, modification and disposal of systems, equipment, and services to satisfy approved needs intended for use in support of assigned missions. Members of the *Coast Guard Acquisition Team*, include, but are not limited to:

- Individuals in an acquisition billet;
- Individuals who are substantially involved in defining, determining, and managing requirements;
- Individuals involved in acquisition planning and strategy;
- Individuals who participate in the process of establishing the business relationship to obtain needed products and services, (e.g., contracting process, those involved in the solicitation, evaluation and award of acquisition contracts);

- Individuals who manage the process after business arrangements have been made to ensure that the Coast Guard's needs are met (e.g., human system integration, testing and evaluating, managing and monitoring the manufacturing and production activities, auditing, contract administration, performance management and evaluation, logistics support, etc.);
- Individuals who arrange disposal of any residual items after work is complete, (e.g., property management/disposal);
- Individuals who support the business processes of the above listed activities (e.g., technical authority, operational authority, project legal counsel or other subject matter experts); and
- Individuals who directly manage those involved in any of the above activities.

Key billets that are part of the acquisition team include those that are involved in the following functions as they relate to acquisition projects:

- Program and project management;
- Systems planning, research, development, and engineering;
- Procurement, including contracting;
- Business, cost estimating, and financial management;
- Industrial and contract property management;
- Facilities engineering;
- Life cycle logistics;
- Information technology;
- Production, quality and manufacturing;
- Testing and evaluation; and
- Configuration management.

The *Coast Guard Acquisition Team* will support the mission needs of the Coast Guard through the direction of PM/PgMs to deliver effective and affordable systems, equipment, and services to our users by:

- Engaging the fleet and sponsors in a collaborative discussion of requirements (capability, cost and schedule) for all options before spending tax dollars;
- Conducting market research and developing requirements with market awareness;
- Clearly defining, in conjunction with the Sponsor (or Sponsor's Representative), the strategy, concepts, capabilities, concept of operations, and requirements;
- Understanding the users' operational concepts;
- Adhering to the acquisition policies, processes and procedures published by the Coast Guard and DHS;

- Prioritizing solutions which guarantee interoperability, reduce total ownership costs, and enhance operational efficiency;
- Accurately pricing projects and insisting the project and budget reflect realistic costs, recognizing technical and integration risks;
- Being accountable and delivering to realistic schedules and approved budgets;
- Responding appropriately to Sponsor requirements within the boundaries of applicable law, regulations, policies, directives, and procedures;
- Using disciplined, tailored management practices which appropriately document acquisition requirements and approvals;
- Planning for and addressing test and evaluation, logistics, systems engineering, and other competencies commensurate with complexity, dollar value and risk; and
- Obtaining and maintaining the appropriate level of training, experience and acquisition certification.

D. Coast Guard Acquisition Leadership Team

The *Coast Guard Acquisition Leadership Team* consists of the Commandant, the Vice Commandant in the role of Component Acquisition Executive (CAE), the Deputy Commandant for Mission Support (DCMS), the Deputy Commandant for Operations (DCO), the Assistant Commandants, the Head of Contracting Activity (HCA), and the senior staff of Coast Guard Directorates, assigned field activities and commands. Commanders and senior staffs of the Coast Guard Force Readiness Command, as well as subordinate field and support activities, provide invaluable input via operational requirements and feedback on operational performance, and contribute to the development of a professional, experienced acquisition workforce via acquisition experience tours of duty for operational personnel.

ADE Briefings are presented to the *Coast Guard Acquisition Leadership Team* through the Executive Oversight Council (EOC) for review followed by a DCMS/DCO review prior to presentation at the Coast Guard Acquisition Review Board (CG ARB). Annual Reviews are presented to the EOC and CG ARB. All ADE and Annual Review Briefings are scheduled by the EOC and CG ARB Executive Secretary, Commandant (CG-924). This relationship is shown in **Figure 1 Coast Guard Acquisition Review Organization**. Additional discussion about the acquisition review process is found in Chapter 7.

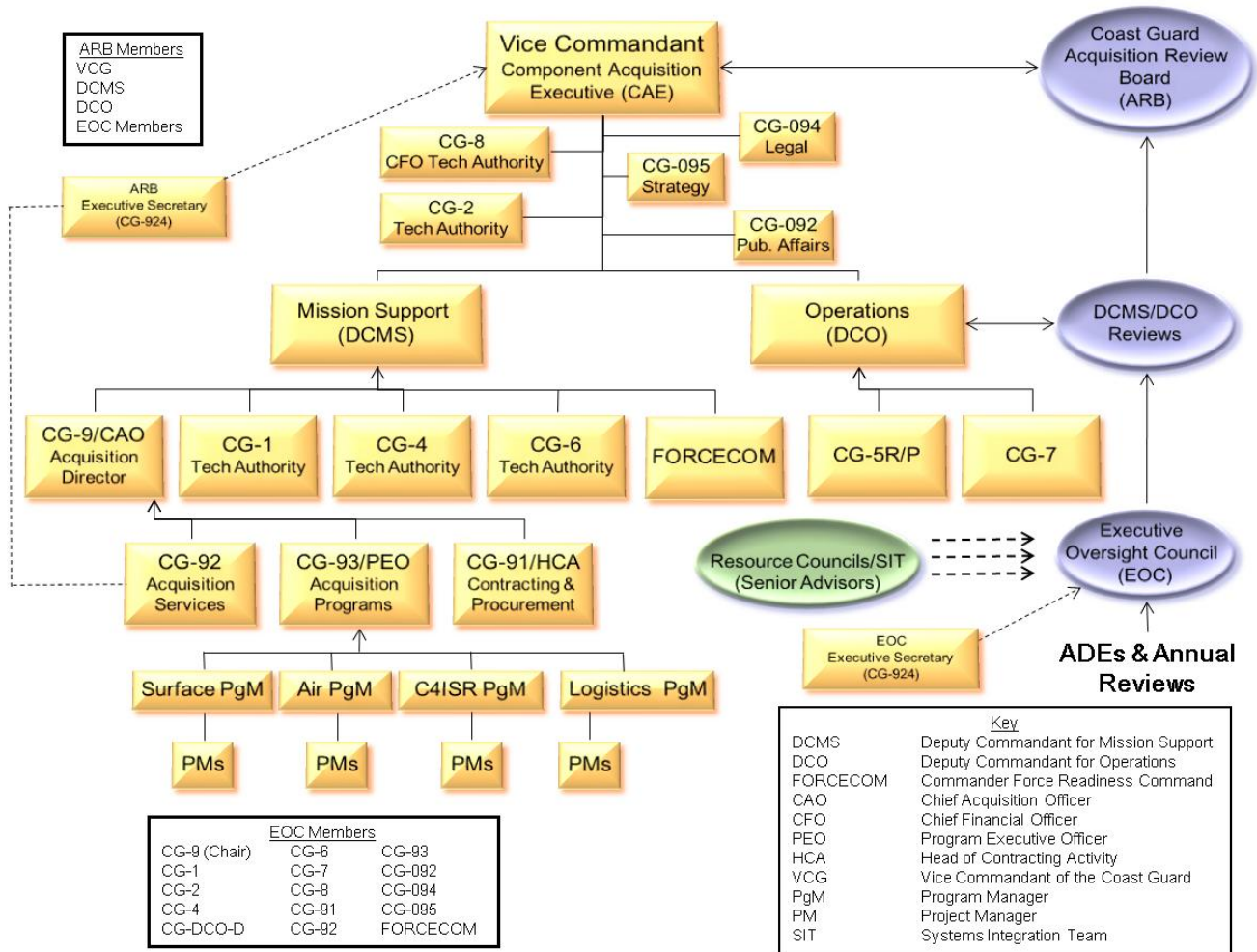


Figure 1 Coast Guard Acquisition Review Organization

E. Acquisition Workforce Training and Certification

PMs assigned to manage any DHS Level 1, 2, or 3 acquisitions (as defined in **Table 1 PM Certification Levels**) shall be certified at a level commensurate with the responsibilities of the acquisition being managed.

The Acquisition Directorate’s Standard Operating Procedure SOP-9-5 (series), Non-Contracting Acquisition Workforce Certifications, provides specific policies and provides procedures and guidance for obtaining Acquisition Workforce Certifications for non-contracting acquisition career fields.

Table 1 PM Certification Levels

DHS Acquisition Level	Life Cycle Cost ¹	PM Certification Level
1	≥ \$1B	III (Senior)
2	< \$1B ≥ \$300M	II (Mid)
3	< \$300M	I (Entry)

¹Life Cycle Cost (LCC) includes Total Acquisition Cost (TAC) plus operation and maintenance costs in constant year 2009 dollars.

An Acquisition Workforce Certification Board (AWCB) has been established to act as the certifying authority for individuals who meet the standards (experience, education, and training) established for a career level (I-Basic, II-Intermediate, or III-Advanced) in the non-contracting acquisition career fields listed below.

The Procurement Policy and Systems Division, (CG-9132) provides review and endorsement to DHS on certifications for the following acquisition career fields:

- Contracting Officers Representative (COR), and
- FAC-C (Federal Acquisition Certification in Contracting) Certification.

The Coast Guard AWCB provides review and endorsement to DHS, who is the certifying authority for the following acquisition career fields: Cost Estimation;

- Life Cycle Logistics;
- Program Financial Management;
- Acquisition Program Manager;
- Systems Engineering; and
- Test and Evaluation.

For more information on acquisition certification, see DHS Acquisition Workforce Policy #064-04 (series), or refer to DHS Connect:

<http://dhsconnect.dhs.gov/org/comp/mgmt/cpo/paw/Pages/CertificationPrograms.aspx>.

The Coast Guard AWCB establishes certification standards for the following acquisition career fields:

- Facilities Engineering;
- Information Technology;
- Production, Quality And Manufacturing; and
- Requirements Management.

Further information on the acquisition career field is available on the Coast Guard Acquisition Workforce Central Acquisition Workforce Certifications CGPortal page:

<https://cgportal.uscg.mil/ctl/uzx90o>.

F. PM Authority and Responsibility

The PM is the chartered individual who has responsibility and authority to accomplish project objectives for developing, producing, and deploying a new asset with logistics support to meet identified operational requirements. The PM is accountable for meeting established cost, schedule, and performance parameters established by the Acquisition Decision Authority (ADA), and works under the guidance and supervision of the Program Executive Officer (PEO) and portfolio Program Manager (PgM).

To fulfill this role, the PM is empowered to manage cost, schedule, and performance of the acquisition (within the bounds established by Program and Project Cost Management,

Commandant (CG-9) Policy Statement #1), and is thereby the project management authority accountable to the acquisition chain of command for meeting overall business and technical goals of their specific acquisition project. The PM is the single point of contact and single point of authority responsible for managing the asset through the acquisition process of design, development, production, and deployment.

The PM is the key individual for acquisition project execution. PMs are accountable for the successful execution of their projects. PMs' span of control is such that they must be autonomous, trained, resourced, empowered, and accountable to senior management for the effort. This all encompassing level of authority and responsibility is the foundation for the Coast Guard's PM-centric acquisition execution model.

Level 1 and Level 2 acquisition projects are considered major acquisition projects. In the Coast Guard, individual major acquisition projects are managed by Coast Guard PMs chartered by the DCMS.

The PM shall:

- Develop acquisition project documents;
- Be accountable and responsible for the planning, organization, execution, and coordination of the acquisition project assigned in accordance with approved charters and applicable acquisition policies and procedures, including those outlined in this Manual;
- Be responsible for defining, planning, and executing the acquisition project within the established cost, schedule, and performance constraints;
- Apply risk management practices in accordance with those outlined in this Manual and Project Risk Management and Risk Reporting, Commandant (CG-9) SOP-9-7;
- Represents the project throughout the planning, programming and budgeting process;
- Manage and control the execution of the project;
- Identify, track, manage, and resolve issues;
- Disseminate project information to all stakeholders - collect and report on metrics to give a sense of project progress;
- Manage scope to ensure delivery of agreed upon requirements;
- Capture lessons learned throughout the entirety of the project and document them in the Acquisition Lessons Learned Database, found at: <http://hqsms-spweb-001:113/ALLDB/default.aspx>;
- Coordinate with Asset Project Office (APO) for development and delivery of logistics analysis and products;
- Coordinate with APO to transition assets into a product line;
- Leverage the APO to transition an asset class from acquisition to sustainment;
- Establish CM processes in the areas of Configuration Identification, Change Management, Configuration Status Accounting, and Configuration Verification and

- Audit. Chair the Configuration Control Board (CCB) for changes to allocated specifications or product baseline;
- Organize and lead project matrix teams and integrated product teams (IPTs) as required;
 - Execute the core processes and activities as consistent with this Manual and project phase, with participation from appropriate stakeholders, including Sponsors, Technical Authorities, other members of the Acquisition and Support Directorates. These include: Project Management, Systems Engineering, Acquisition Logistics, Test and Evaluation, and Enterprise Architecture activities;
 - Manage project resources (funds and personnel) using sound business practices and maintain a project financial plan that ensures a complete audit trail of project funds. Ensure project financial resource management is in compliance with the Financial Resource Management Manual (FRMM), COMDTINST M7100.3 (series), and Obligation Planning Review Process and Timeline, Commandant (CG-9) SOP-9-16;
 - Act as the focal point for reporting Project specific information. Develop Project reports and briefings, to include: Weekly/Monthly/Quarterly Project Reports, Annual Reviews, Decision Milestone Reviews, updates to DHS Next Generation Periodic Reporting System (nPRS) and Investment Management System (IMS) tools, and Information Briefs;
 - Serve as principal advisor to all formal Project-Specific Source Selection activities;
 - Participate in negotiations and draft Memorandums of Understanding (MOUs) for Inter-Agency Support Agreements;
 - Verify appropriate funding guidance for the use of MOUs and be responsible for MOU administration and execution;
 - Serve as the Project Office lead for Project Resident Offices (PROs) established to deliver the assigned assets; and
 - Provide appropriate documentation to support valuation and capitalization of acquired assets for Chief Financial Officer (CFO) compliance.

G. Contracting Officer Authority and Responsibility

The Contracting Officer has a unique role and responsibility in supporting project execution. In particular, the Contracting Officer:

- Acts as the sole Government authority to enter into, administer, or terminate contracts and make related determinations and findings;
- Ensures performance of all necessary actions for effective contracting, ensures compliance with the terms of the contract, and safeguards the interest of the United States in its contractual relationships;
- Ensures that all requirements of law, executive orders, directives, regulations, and all other applicable procedures, including clearances and approvals, and ethics have been met;

- Ensures that sufficient funds are available for obligation;
- Ensures that contractors receive impartial, fair, and equitable treatment;
- Requests and considers the advice of subject matter experts in audit, law, engineering, information security, transportation, and other fields, as appropriate; and
- Ensures that contracts are structured properly to allow for effective valuation and capitalization of each Coast Guard asset produced under contracts.

The proper exercise of this expertise requires the ability to act independently without improper influence on business decisions. The functional independence of the Contracting Officer is important to the success of any project. The Contracting Officer's ability to exercise independent business and professional judgment will result in excellent customer service to the PM and facilitate timely and accurate documentation resulting in a successful contract award and ultimately, a successful program. Therefore, Contracting Officers should be identified early in the acquisition process to ensure they are part of the acquisition team from the beginning.

H. Program Manager Authority and Responsibility

The Program Manager (PgM) is the individual who has responsibility and authority to determine the strategic vision of a program (in this context, a specific portfolio of functionally similar systems). The PgM is responsible for establishing a portfolio focus across projects within the portfolio. The PgM is accountable for establishing starts and closeouts, and communication with entities outside Commandant (CG-9). The PgM reports directly to the PEO.

The Coast Guard Acquisition Directorate (CG-9) assigns PgMs to provide integrated program management of Surface, Aviation, and Command, Control, Communications, Computers and Information Technology (C4IT) major acquisition (Level 1 and 2 acquisitions) portfolios.

The role of the Logistics PgM is fulfilled by the PEO Special Assistant for Acquisition Logistics, Commandant (CG-93AL).

PgMs are responsible for:

- Directing/managing a group or portfolio of related capability Projects (i.e., Surface, Air, C4IT);
- Applying sound risk-based decision making and portfolio analysis practices to balance the many factors that influence Program cost, schedule, and performance in order to support and meet overarching Coast Guard mission goals and objectives;
- Taking advantage of commonality and other synergies across projects within a respective portfolio, and working with other PgMs to seek efficiencies between portfolios;

- Providing input to the Commandant (CG-9) Acquisition Lessons Learned Database system, found at: <http://hqsms-spweb-001:113/ALLDB/default.aspx>, and incorporating best practices into follow-on acquisition projects;
- Developing, coordinating and representing the Program business case and Program performance metrics;
- Establishing a forum for Cross-Project collaboration and issue resolution, and sharing of lessons learned;
- Providing oversight, direction, guidance, and support to the acquisition PMs within the Program;
- Facilitating regular and direct access to the Program Executive Office (PEO) for all PMs;
- Managing Program workforce resources;
- Coordinating with Commandant (CG-91) and Commandant (CG-92) to provide contracting, technical, workforce, and business management support for PMs;
- Supporting Sponsor's Representative on requirements development (Preliminary Operational Requirements Document (P-ORD), Operational Requirements Document (ORD)) and Concept of Operations (CONOPS) development to ensure that acquisition considerations are included prior to the assignment of a PM;
- Coordinating the Acquisition, Construction & Improvement (AC&I) portion of funding for P-ORD, ORD and CONOPS development, including funding for feasibility studies, trade-off analyses and documentation support;
- Ensuring PMs and their teams acquire or hold appropriate certifications for the duties assigned;
- Managing a geographically dispersed workforce;
- Supervising direct-report Project leads;
- Providing oversight for all Program related plans and documentation to ensure compliance with this Manual;
- Liaison with Sponsors, Technical Authorities (TAs), other members of the Acquisition Directorate, and Support Directorates for their appropriate participation in Project Management, Systems Engineering (including systems integration), Logistics, Test and Evaluation, and Enterprise Architecture activities;
- Developing Program vision and direction and establishing a communication plan to communicate a clear and compelling vision for the Program;
- Providing clear goals and objectives to the PMs, and keeping Program and Project team members focused on Program vision and goals as they deal with challenges and change;
- Tracking and ensuring PMs meet Acquisition Program Baseline (APB) parameters within approved budgets and cost, schedule and performance parameters and report adverse trends;

- Monitoring the planning, programming, and budgeting efforts for the Program;
- Ensuring the submission of appropriate requests for resources needed to develop, acquire, and support acquisition Projects;
- Coordinating with Commandant (CG-928) throughout the process and providing financial documents to ensure a complete audit trail of Program funds;
- Ensuring the submission of all required financial reports and data to ensure the Program is efficiently and effectively managed and supported;
- Ensuring the Program is responsive to the requirements that are placed on it by organizations within and outside the Coast Guard;
- Acting as the authoritative and principal source of information for internal and external inquiries and briefings on programmatic issues;
- Reporting progress to Coast Guard executive leadership;
- Developing and coordinating external Program responses to inquiries from Congress, DHS, GAO, congressional testimonies, presentations, data calls, etc.;
- Maintaining liaison with DHS, DOD and other non-Coast Guard organizations as appropriate;
- Building relationships with other Programs;
- Exercise control of Component Approval authority of portfolio reporting responsibilities with the DHS nPRS;
- Supporting the Sponsor's Representative develop the initial Exhibit 300 for a new start project; and
- Briefing the Assistant Commandant for Acquisition (CG-9) on a new start project's initial acquisition strategy, prior to ADE-1.

I. Program Executive Officer

The PEO has overarching responsibility for acquisition project management and execution. This includes the oversight of all Coast Guard major acquisition projects to modernize, recapitalize and sustain Surface, Air, C4ISR assets and Logistics for the Coast Guard's multiple maritime missions. Projects are grouped into three major portfolios (Air, Surface and C4ISR); each led by a PgM who reports directly to the Deputy PEO and PEO. Within each portfolio, PMs are responsible to the PEO through their respective PgMs for the cost, schedule and performance of their projects and the establishment of a sustained logistics support capability for the asset being acquired.

An Asset Project Office (APO) has been established under the PEO to provide logistics planning and analysis support to each project, assist with the integration of logistics into product development and to facilitate the transition of sustainment responsibility to the appropriate CG Logistics/Service Center after initial deployment. While the Project Manager is responsible for overall project performance, including logistics related efforts, the APO acts as an extension of the PM's staff to coordinate and execute these activities in accordance with the CG logistics business model.

Under the general direction and supervision of the Assistant Commandant for Acquisition, the PEO:

- Oversees acquisition, integration and delivery of assets and systems. Ensures development, maintenance, and/or compliance with all program-related plans and existing directives. Maintains complete, up-to-date documentation of actions and decisions;
- Provides direction and guidance for Acquisition PgMs and PMs to define and best satisfy program cost, schedule, and performance objectives while identifying and managing risk throughout the acquisition life cycle;
- Through the APO, ensures that the PM is supported in executing all logistics related efforts in accordance with the CG logistics business model;
- Ensures that PgMs liaise with Sponsors, TAs and Support Directorates in appropriate MSAM phase activities;
- Consults with the Director of Contracting and Procurement Commandant (CG-91) in matters relating to acquisition strategy, competition, and contract management. Ensure Acquisition PgMs have full Contracting Officer support to successfully execute acquisition programs;
- Consults with the Director of Acquisition Services Commandant (CG-92) in matters related to workforce management; international sales; research, development, testing and evaluation; and all resource management matters; and acquisition support and governance;
- Ensures Acquisition PgMs have full access to all required support services to successfully execute acquisition programs including, but not limited to: required funding to execute their Programs; contractor support services; cross-domain integration support; information management tools and data; real-time metrics of cost, schedule, and program performance; workforce training and staffing; business management support to oversee cost and schedule; communication product support; administrative support; work spaces and equipment required for duties and workforce professional credentialing and certification;
- Reviews and approves financial plans for Commandant (CG-93) programs. Ensures information is provided to Commandant (CG-928), the Sponsor and Support Program Directors for development of funding and other resource requests;
- Acts as the principle Coast Guard spokesperson for all acquisition program status and execution related issues;
- Coordinates with Sponsors who will continue to serve as the spokesperson for current and projected operations and operational requirements;
- Provides effective internal communications to keep personnel properly informed of Program developments and issues;

- Serves as one of the principal Coast Guard contacts for senior representatives from industry and government agencies for the conduct of Acquisition Project Management activities;
- Presses acquisition reform and promotes best practices and lessons learned, optimizing matrix team participation and employing integrated product teams;
- Aligns efforts with Commandant (CG-92), Sponsors, and Support Program Directors to address and resolve issues of mutual concern;
- Approves negotiations and MOUs for Inter-Agency Support Agreements related to Major System Acquisitions; and
- Ensures compliance with DHS and Coast Guard policy and standard operating procedures for major acquisition projects.

J. Sponsor and Sponsor's Representative

The Sponsor is the identified organizational element that develops and documents the business case, defines and validates functional requirements, and accepts capability needed to support Coast Guard mission or business performance. For enterprise systems (as identified by the C4IT Enterprise Architecture), the Sponsor shall be at an organizational element level. The Sponsor shall collaborate with the Director of Acquisition Programs and the TAs to ensure alignment and compliance with this Manual and SELC policies and practices. For SELC reviews of Coast Guard projects, the Sponsor is also known as the Lead Operational authority.

The Sponsor has the following responsibilities:

- Work with Commandant (DCO-81) and Commandant (CG-5R/P) in planning and conducting Mission Analysis and in creating the Mission Analysis Report (MAR);
- Defining, maintaining, evaluating, and articulating organizational and program goals and requirements through development of the Mission Need Statement (MNS), CONOPS, P-ORD and the ORD;
- Acquiring, through planning and programming, the necessary resources to fully implement and support the needed capability, considering total operating costs and the entire life cycle of the system;
- Coordinating, assimilating, and providing end user input to the appropriate phase of the SELC;
- Identifying and facilitating the resolution of issues tied to requirements and needs;
- Defining, tracking, and evaluating performance measures;
- Developing, updating, and establishing program doctrine, policies, and associated concepts of operations, including operational or end user operational training requirements;
- Coordinating with Commandant (CG-6) for identification and designation of an Asset Manager for every C4IT project;
- Fulfilling the planning, programming, and budgeting functions of the Sponsor's organization;

- Developing acceptance criteria (including performance) for capabilities and systems
- Conducting annual Operational Analysis (OA) on individual assets in accordance with DHS Operational Analysis Guidance to determine the ability of current assets to meet required performance, supportability and cost goals.

The Sponsor's Representative is designated by the Sponsor. The Sponsor's Representative shall collaborate with the PM and SELC technical experts as well as customers, users, and stakeholders, to ensure alignment and compliance with this Manual and SELC policy and practice to deliver successful, supportable, and easy-to-use systems.

The Sponsor's Representative has the following responsibilities:

- Coordinating concept approval for development of any new or existing system with the Mission Program Manager, representatives of the TAs and the Sponsor;
- Articulating requirements for the Sponsor, users, customers, and stakeholders;
- Assisting in the development of, and/or validation of business process changes;
- Working with the Asset Manager from Commandant (CG-6) to ensure that any new or existing C4IT system aligns with the Enterprise Architecture;
- Developing cost estimates in collaboration with the PgM, PM, Asset Manager, users, stakeholders and technical authority representatives;
- Work with Commandant (CG-1B3) and Force Readiness Command, Commandant (FC-T), in defining crew performance requirements, and request analysis to determine appropriate performance support & training.
- Communicating and resolving issues identified with system development, operation, or support;
- Processing and relaying change requests, input, and feedback from users, customers, and stakeholders; and
- Collaborating in the development of a systems engineering lifecycle tailoring plan for each project.

K. Technical Authorities

The Commandant has designated TAs to serve as the Coast Guard's authoritative experts in providing the authority, responsibility, and accountability to establish, monitor, and approve technical standards, tools, and processes, and certify projects in conformance with statute, policy, requirements, architectures, and standards.

Commandant (CG-1) is designated as the TA for Human Systems Integration (HSI), the human component of the system design process, and ensures systems are designed, produced, supported, fielded, and modernized through a complete and careful integration of the human component, including manpower, personnel, training, system safety and occupational health, human factors engineering, habitability, and personnel survivability. CG-1 TA, COMDTINST 4700.5 (series) applies.

Commandant (CG-2) is designated as the TA for intelligence systems and capabilities, associated SCI networks, communications and spaces. Commandant (CG-2) Memorandum, Decision Memo – Intelligence Support to Acquisitions, SSIC# 3810 dated 28 February 2011

approved by the VCG on 31 May 2011, applies.

Commandant (CG-4) is designated as the TA for the design, construction, maintenance, logistics support, and configuration management of Coast Guard systems and assets, excluding Coast Guard Command, Control, Communications, Computers, and Information Technology (C4IT) Systems. CG-4 TA, COMDTINST 4700.4 (series), applies.

Commandant (CG-6) is designated as the TA for the design, development, deployment, security, protection, and maintenance of all Coast Guard C4IT systems and assets. C4IT Systems Development Life Cycle (SDLC), COMDTINST 5230.66 (series), applies.

Commandant (CG-8) is designated as the TA for Financial Management. CFO TA, COMDTINST 5402.3 (series), applies.

TA processes and the associated certifications are an essential aspect of an independent TA, providing objective evidence of effective, efficient, and affordable systems engineering.

L. Systems Integration Team

The Systems Integration Team (SIT) is a cross-directorate, cross-enterprise O-6/GS-15 level team whose primary purpose is to support the EOC with the management of issues and provide a forum to discuss and resolve project issues that directly or indirectly impact cross-directorate stakeholders. The SIT provides individual projects and Resource Councils (RC) the opportunity to elevate cross-programmatic issues and pursue collaborative solutions to achieve mutually beneficial results in a timely manner.

The SIT will be chaired by the Deputy Assistant Commandant for Capabilities (CG-7D). Specifically, the SIT will:

- Serve as a forum to discuss and work emergent cross-domain issues;
- Address issues as tasked by the EOC chair;
- Provide coordinated recommendations to the EOC;
- Coordinate resolution of cross-programmatic issues raised by RCs;
- Meet as needed to address specific issues; and
- Meet quarterly to review RC minutes to ensure cross-programmatic issues are appropriately recognized.

Note: There are currently five RCs formally chartered. Each one reports directly to the EOC for issues within their capability and through the SIT for all cross-programmatic issues.

M. Chief Acquisition Officer

The Assistant Commandant for Acquisition, Commandant (CG-9), is chartered by the CAE

as the Coast Guard Chief Acquisition Officer (CAO). The CAO sets the strategic direction for Coast Guard acquisitions and oversees the effective execution of all acquisition related functions.

Specifically, the CAO will:

- Report directly to the CAE on matters pertaining to acquisition roles and responsibilities;
- Serve as the primary representative for the Coast Guard at DHS CAE council;
- Develop and approve Coast Guard acquisition policies and processes to ensure effective management and appropriate oversight of Coast Guard acquisitions;
- Use functional experts to promote the use of systems acquisition best practices and to provide/oversee the independent review and assessment of acquisition programs and projects. For more information on these independent reviews, see chapter five of this manual.
- Monitor the performance of acquisition programs and projects through the use of rigorous cost, schedule and performance metrics and advise the Commandant, through the chain of command, on the appropriate business strategies to best execute Coast Guard acquisition projects;
- Ensure compliance with all applicable acquisition laws and policies including the Coast Guard Authorization Act of 2010;
- Serve as the ADA for ADE-2 and ADE-3 for non-major acquisition projects;
- Charter non-major acquisition project managers;
- Serve as a member of the CG ARB;
- Serve as the chair of the EOC (with the exception of non-major IT projects for which Commandant (CG-6) is the chair).
- Design policies and processes to ensure that the best qualified persons are selected for Acquisition Management positions (e.g., PMs and PgMs);
- Ensure that Acquisition personnel, other than contracting personnel, but including PgMs, meet the DHS mandatory education, training, and experience standards established for an Acquisition career level (Levels I, II, and III) in an Acquisition career field;

N. Executive Oversight Council

The EOC is a Flag/SES-level forum that monitors major risks, addresses emergent issues, and provides direction to cross-directorate teams as required to support successful execution of major acquisition projects. The EOC is chaired by the Assistant Commandant for

Acquisition for all major acquisition and non-major non-IT related acquisition reviews. The EOC is chaired by the Coast Guard Chief Information Officer, Commandant (CG-6) for all non-major IT related acquisition reviews. The Coast Guard Assistant Commandant for Capability (CG-7) serves as the EOC Chair for the annual portfolio review. The chair of the EOC may rotate to the sponsor or a technical authority depending on the nature of the given review. The EOC is responsible for integration of Coast Guard systems acquisition across all mission and functional domains. The EOC Coast Guard-wide integration function embodies the Coast Guard initiative to assume the systems integrator role.

The EOC includes key stakeholders whose function is to review changes to requirements or resources that have the potential to result in significant performance, cost, and/or schedule changes.

The EOC is responsible for helping major acquisition projects successfully manage to their approved baselines. The EOC will monitor major risks and serve as a focal point to discuss and resolve emergent issues that may hinder the effective management of major acquisitions.

Specifically the EOC will:

- Monitor major risks and approve mitigation plans to balance cost, schedule and performance tradeoffs;
- Synchronize projects with planning, programming, budgeting and execution milestones to align them for successful completion of key milestones and ADEs, and provide input to the CG ARB;
- Address and resolve cross-sponsor and cross-enterprise issues;
- Control requirements creep by reviewing proposed changes to requirements and technical configuration that could increase cost and schedule;
- Provide a forum for the CAO, PEO, and CIO to raise issues; identify programmatic support needs; or, to propose cost, schedule, and performance tradeoffs;
- Provide a forum for the TAs and Sponsor to raise and discuss issues related to major acquisitions;
- Review de-scoping of requirements or adjustments to technical baselines in response to funding constraints;
- Serve as a review board for proposed acquisition strategies and prioritizing new starts;
- Provide coordinated guidance to staffs;
- When appropriate, make vetted recommendations to the CAE through DCMS and DCO;
- Resolve disputes by consensus. If disputes remain unresolved after 90 days, document the issue providing a detailed description and rationale underlying the decision to the Commandant for reporting to the appropriate congressional committees in accordance with HR 3619 Sec 401(e); and

- Conduct an annual review to assess and oversee acquisitions collectively as a balanced long-term and affordable portfolio consisting of a balanced mix of assets that optimizes Coast Guard mission execution.

O. Component Acquisition Executive

The Component Acquisition Executive (CAE) is the senior acquisition official within the Coast Guard. The CAE is responsible for implementation, management, and oversight of Coast Guard acquisition processes, and coordinating those processes with the contracting and procurement processes of the Head of Contracting Activity (HCA).

Responsibilities of the CAE include:

- Establishing acquisition processes within the Coast Guard;
- Aligning and managing the Coast Guard acquisition portfolio in compliance with applicable DHS and Coast Guard regulations and policies and consistent with DHS missions and strategic goals;
- Participating in DHS ARBs for Level 1 and 2 acquisitions within the Coast Guard portfolio, or designating an alternate to participate;
- Submitting all Level 1 and 2 acquisitions through the Acquisition Review Process, including Level 1 and 2 joint/consolidated investments for which the Coast Guard is the designated lead;
- Executing (ADA) responsibilities for Component Level 1 and Level 2 acquisitions when delegated by the DHS USM, who serves as the DHS Chief Acquisition Officer (CAO);
- Reviewing Operational Test & Evaluation (OT&E) reports presented by the Operational Test Agency (OTA);
- Executing ADA responsibilities for Component Level 3 acquisitions and establishing Component Level 3 acquisition policies and procedures that support the spirit and intent of Reference (a); Assisting the USM and DHS Chief Procurement Officer (CPO) in developing, implementing, and evaluating Acquisition policies, programs, and services by providing resources (e.g., for integrated process teams), input, and advice; and
- Advising the USM and DHS CPO on the mission, priorities, initiatives, and acquisition program needs of the Component, and immediately notifying the USM and DHS CPO of acquisition management developments that may have a significant impact on DHS or Component acquisition and contracting activities.

NOTE: Per DHS Memorandum for the Secretary, Departmental Designations Chart, approved by the Secretary of DHS, dated 04 April 2011, the USM is designated as the DHS Chief Acquisition Officer.

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CHAPTER 2: MAJOR SYSTEMS ACQUISITION MANAGEMENT

A. Major Systems Acquisition Process

The Coast Guard’s major systems acquisition process implements the capital asset acquisition policy embodied in the FAR, OMB Circular A-11, and Reference (a).

1. Major Systems Acquisition Management

This Chapter discusses the process governing Coast Guard Major Systems Acquisitions. It provides definitions of acquisition categories, acquisition phases, and principal decision milestones.

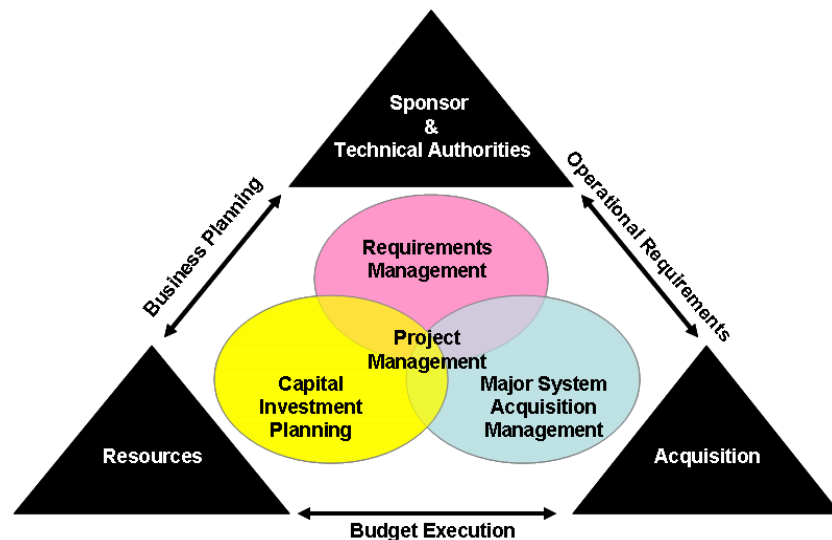


Figure 2 Management Interfaces

PMs are required to integrate the three primary management areas shown in **Figure 2 Management Interfaces** into a coherent strategy to achieve specific cost, schedule, and performance parameters for their assigned projects.

Requirements Management is the “Sponsor and Technical Authority managed” process with the Sponsor defining mission needs and translating them into Sponsor requirements and the TA ensuring proper Coast Guard technical standards and resources are incorporated. Business planning will identify the deficiencies (gaps) that exist between current Coast Guard functional capabilities and the required capabilities of current or projected missions. The Sponsor is responsible for developing a MNS, derived from business planning activities that describes specific functional capabilities required to accomplish Coast Guard missions that can only be met with new, modified or additional materiel solutions. The Sponsor is responsible for developing a CONOPS that describes a proposed asset, system or capability in terms of the user needs it will fulfill; the environment in which it will operate; its relationship to existing assets or systems; and the ways it will be used. The Sponsor identifies and refines specific asset or systems requirements and articulates them in the ORD.

Major System Acquisition Management is the “PM-owned” process of planning project

activities and organizing a project staff to achieve cost, schedule, and performance requirements identified in the ORD and funded in the budget.

Capital Investment Planning is the planning, programming, budgeting, and execution process that is a calendar-driven fiscal process and owned by the Assistant Commandant for Resources (CG-8). Capital investment planning has two interdependent functions - providing project budget planning (for funding and personnel) and establishing affordability constraints. Project resource planning and management is coordinated by the PM in collaboration with the Sponsor, TAs and the Commandant (CG-8) staff.

2. Major System Acquisitions

Major System Acquisitions include equipment, services, and intellectual property (e.g., software, data, etc.) that are acquired by the Coast Guard through purchase, construction, manufacture, lease, or exchange and may also include improvements, modifications, replacements, or major repairs. A complete system includes processes and people; integration, testing, logistics, and training as well as the human operator, maintainer, supporter and trainer who are all components of the overall system.

Reference (a) provides governing guidance and knowledge-based management requirements for oversight of DHS acquisitions. Based on Project Life Cycle Cost Estimates (LCCEs), acquisitions are categorized into Acquisition Levels requiring differing levels of oversight. The Project LCCE includes all costs associated with the acquisition of the overall system over its life from project initiation to asset or system disposal. DHS Levels 1 and 2 are Major System Acquisitions and Level 3s are Non-Major Acquisitions. The DHS acquisition levels and ADAs determined by the LCC of the projects (in constant year 2009 dollars) are as follows:

Level 1¹ (Major)	LCC: At or above \$1 billion ADA: Deputy Secretary (S2), or USM upon designation by the S2
Level 2 (Major)	LCC: \$300 million or more, but less than \$1 billion ADA: USM or the CAE upon designation by the USM
Level 3 (Non-Major)	LCC: Less than \$300 million ADA: CAE

Initially, an acquisition is assigned a level based on its estimated total LCC, but it may be changed to a higher or lower level for one of the following reasons:

- Importance to DHS' strategic and performance plans disproportionate to its size;
- High executive visibility;
- Impacts more than one DHS Component or has significant program, project or policy implications; or
- Other reasons, as determined by the Deputy Secretary, DHS USM, or ADA.

¹ All Acquisition Level 1 projects require Project LCCE's to be approved by DHS PARM

Where acquisition decision authority is delegated to the CAE, the Coast Guard ADA is defined as the chair of the CG ARB as provided in **Table 2 CG ARB Chair**.

Table 2 CG ARB Chair

Major					
ADE	0	1	2A/2B/2C	3	4(CG Only)
Level 1	DCMS	CAE	CAE ¹	CAE ¹	DCMS
Level 2	DCMS	CAE	DCMS	DCMS	DCMS
Non-Major ^{2, 3}					
ADE	1		2	3	
Level 3	DCMS		CAO (CG-9)/CIO (CG-6)	CAO (CG-9)/CIO (CG-6)	

¹ CAE will chair the CG ARB whenever DHS ADA is S2, but otherwise may delegate to DCMS for ADE-2A/2B/2C and ADE-3.

² Non-Major Acquisitions are governed by COMDTINST M5000.11 (series) Non-Major Acquisition Process.

³ CG-9 is the Chair for Non-Major (Non-IT). CG-6 is the Chair for Non-Major (IT).

All decisions are documented in an Acquisition Decision Memorandum (ADM) with copies to senior level decision authorities where decision authority has been delegated.

3. Major Systems Acquisition Process Structure

The major systems acquisition process, for the Coast Guard, is based upon the DHS Directive 102-01. As shown in **Figure 3 Major Systems Acquisition Life Cycle Framework**, the overall acquisition lifecycle is composed of a pre-acquisition phase (Project Identification) and four distinct acquisition phases: Need; Analyze/Select; Obtain; and Produce/Deploy/Support. The Coast Guard transitions support following Production/Deployment at ADE-4. For this reason, this document will identify the fourth phase as Produce/Deploy and Support.

The transition from one phase to the next occurs with approval of an ADE. The appropriate Coast Guard ADA for ADEs is specified in **Table 2 CG ARB Chair**. Indicated by a triangle (▲) in **Figure 3 Major Systems Acquisition Life Cycle Framework**, ADEs are critical knowledge-based decision points throughout the acquisition life cycle process that require assessment of project readiness and risk before formal authorization to proceed to the subsequent phase. Any deviation from this knowledge-based acquisition process must be documented in the Acquisition Strategy approved by the CAE and DHS ADA at ADE-1.

The major systems acquisition life cycle is intended to be flexible and may be tailored, with the ADA's approval, to meet the specific circumstances of each acquisition project.

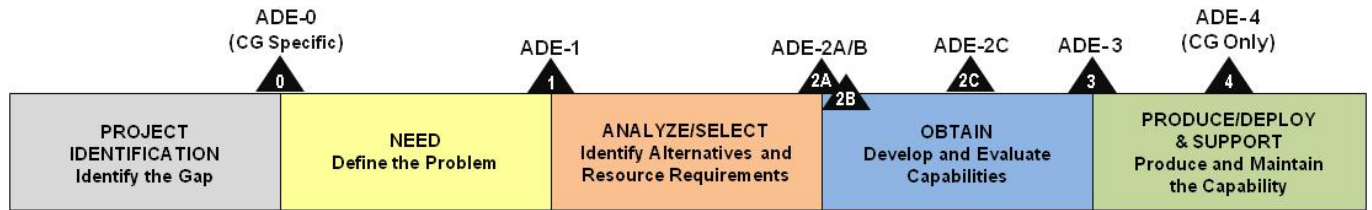


Figure 3 Major Systems Acquisition Life Cycle Framework

4. Major Acquisition Phases

- Project Identification Phase:** Before a major systems acquisition formally begins, a capability gap must be identified. As part of pre-acquisition activities, Coast Guard Mission Analyses (MA) and Operational Analyses (OA) are performed by Office of Performance Management and Assessment (DCO-81), Commandant (CG-5R/P), and the operating program Sponsor to identify Coast Guard capability gaps. These analyses must include integration with Coast Guard TAs – Commandants (CG-1, CG-2, CG-4, CG-6 and CG-8), and Coast Guard Force Readiness Command (FORCECOM) – to ensure the inclusion of mission support needs as well as mission capabilities and affordability. The result of this ongoing MA is a MAR. The MAR is endorsed at ADE-0 with direction to proceed with the development of a MNS and a CONOPS.

NOTE: DHS has the specific component (i.e., Coast Guard) act as ADA for ADE-0

- Need Phase:** During the Need Phase, the completed and DCO approved MAR is used to develop a MNS and CONOPS that describe specific functional capabilities required to address specific capability gaps in Coast Guard mission performance. In addition, initial project management documentation, including the Capability Development Plan (CDP), initial Acquisition Strategy (AStr), and an initial Exhibit 300 business case, are developed. The Need Phase culminates with the ADE-1 review.
- Analyze/Select Phase:** The Analyze/Select Phase identifies and explores alternatives through an Alternatives Analysis (AA) to fill validated user mission capability gaps identified in the MNS. The CONOPS is used to support the AA. Feasible alternatives are evaluated and system requirements are identified (ORD) to jointly provide a basis for assessing the relative merits (e.g., advantages and disadvantages, degree of risk, LCC, and detailed cost-benefit) of the alternatives and ultimately determine a preferred solution. An Acquisition Plan (AP) provides the specific details of information contained in the AStr. A Project Life Cycle Cost Estimate (PLCCE) is developed for the selected alternative. Logistics support planning (Integrated Logistics Support Plan) and test planning (Test and Evaluation Master Plan) are performed for the preferred solution culminating in the initial definition of the project's cost, schedule, and performance baseline (Acquisition Program Baseline). Typically the Analyze/Select Phase concludes with a combined ADE-2A/ADE-2B review, unless a project is managed in discrete segments, in which case, each subsequent discrete segment will go through an individual ADE-2B.
- Obtain Phase:** The Obtain Phase of the acquisition is focused on demonstrating

feasibility of the preferred alternative and refining the solution prior to a full production commitment. During this phase, essential systems engineering activities are performed, project test plans are implemented, and integrated logistics support is accomplished and refined as the project design evolves. The Obtain Phase also includes preparation of the Project Management Data Sheet (PMDS) for submission to Commandant (CG-8) describing the project funding, types of assets, asset delivery schedule, acceptance criteria and valuation criteria. If appropriate, a Low Rate Initial Production (LRIP) decision is made at ADE-2C, with overall project approval to proceed into full-rate production, deployment and support occurring at ADE-3.

- **Produce/Deploy and Support Phase:** The objective of the Produce/Deploy and Support Phase is to produce/deploy discrete segments of operational capability with established logistics support. Steady state support of the delivered capability occurs after the acquisition project has transitioned full support to the sustainment community at ADE-4. During the capability's operational life, the operating program continues operational analyses to ensure the asset or system is meeting performance, supportability, and cost goals.

NOTE: All participants and stakeholders in the acquisition process should consider and capture lessons learned throughout all phases of a project's lifecycle. This can be accomplished through IPTs or individual methods. All lessons should be entered in the Acquisition Lessons Learned Database on a regular and recurring basis.

5. Acquisition Decision Events

The CG ARB reviews major acquisition projects prior to all DHS ADEs. At each ADE review, the project must demonstrate progress, successful satisfaction of the established Exit Criteria, and a readiness to move forward to the next acquisition phase. The DHS and Coast Guard Acquisition Review Processes are explained in the Chapter 7 section on reviews.

ADEs come at the end of each phase of the acquisition process and mark the logical completion of the phase and the beginning of the next phase in the acquisition development cycle. Approval to enter into the next phase is provided from the ADA in an ADM. The specific ADEs used by DHS and the Coast Guard include:

- **ADE- 0 (Project Identification - CG Specific):** Provides authorization for a prospective project to enter into the Need Phase. It is intended to support a budgetary decision to identify and prioritize funding for a new-start project. Because of its tie to the programming/budgeting process, it is the only ADE that is calendar driven instead of event driven. Optimally, ADE-0 should occur in the late spring/summer in the calendar year to allow sufficient time to enter the CG/DHS programming process for the upcoming Resource Allocation Planning activities. The ADE-0 should include all Coast Guard new start projects and is not normally intended to be an isolated review for an individual project. ADE-0 is a Coast Guard specific review and does not go to the DHS ADA.
- **ADE-1 (Validate the Need):** The purpose of ADE-1 is to ensure alignment of needs to strategic Coast Guard and DHS direction along with adequate planning and resourcing for upcoming phases. ADE-1 validates the need for a major acquisition project and initiates the Analyze/Select Phase.

- **ADE-2A (Approve the Major Acquisition Project):** Approves the acquisition to proceed to the Obtain phase. This decision includes approval of the materiel elements of the alternative to be pursued and the initial APB for the project. It is also where the LRIP quantity is approved if LRIP is planned by the project. Regarding LRIP quantities, Reference (b) section VI.G.7 states, “Rationale for quantities greater than 10% of the full production quantities identified in the acquisition plan must be documented.”
- **ADE-2B (Approve the Discrete Segment):** ADE-2B is usually combined with ADE-2A when the project is managed as a single segment of capability or when the project’s first segment reaches ADE-2A. Subsequent segments will each go through an individual ADE-2B.
- **ADE-2C (Approve LRIP):** Approves execution of LRIP for the quantities previously approved at ADE-2A. Approval for LRIP means that the PM is authorized to commit to contract for production for a limited number of items. Prerequisites for LRIP approval include: a completed and satisfactory Critical Design Review (CDR) and a satisfactory Production Readiness Review (PRR).
- **ADE-3 (Approve Full Rate Production):** Based upon successful testing and positive test reports, production readiness, logistics readiness, and verification of sufficient production and operational resources (staffing, equipment, supplies, and funding) the ADA authorizes the project to enter the Produce/Deploy and Support Phase.
- **ADE-4 (Project Transition – CG Only):** This Coast Guard unique ADE occurs when system production is approaching completion and the acquisition project is ready to disestablish and transition the management of the delivered asset(s) to the Support Program Manager.

B. Project Identification Phase

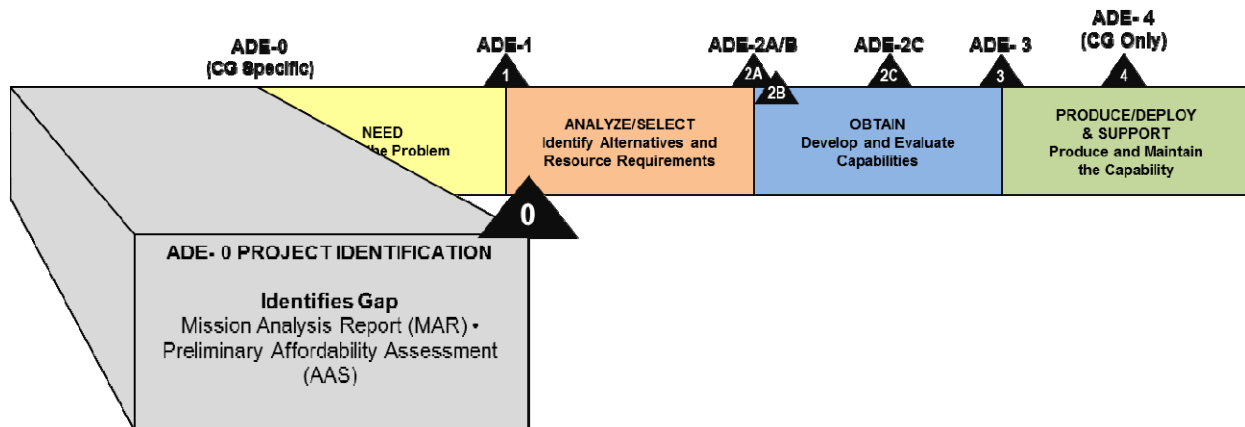


Figure 4 Project Identification Phase

The Project Identification Phase, as shown in **Figure 4 Project Identification Phase**, is a pre-acquisition phase conducted by the Coast Guard that provides a foundation for the identification of capability gaps. The Project Identification Phase may also begin as the result of a Congressional mandate, need for technology refreshment, or new technology development that provides a new capability or significant improvement in mission performance. During the Project Identification Phase, a MAR is developed by Commandant (DCO-81) with support by Commandant (CG-5R/P), the Sponsor, and FORCECOM to identify capability gaps in Coast Guard mission performance. Evaluation of Doctrine, Organization, Training, Materiel, Leadership, Personnel, and Facilities plus Regulations/Grants/Standards (DOTMLPF+R/G/S) assists in determining whether a materiel solution is needed to resolve the capability gap(s). The MAR is critical to the Sponsor's ability to effectively document and communicate its mission capability gaps in the MNS.

1. Project Identification Phase Objectives

Commandants (DCO-81) and (CG-5R/P), and the Sponsor(s) are responsible for conducting mission analyses on an ongoing basis to identify capability gaps in missions that support National, DHS, and Coast Guard strategic goals and objectives. Commandant (DCO-81) has the lead role in initiating the mission analyses with the support of technical and acquisition authorities, as needed.

The primary objective of the Project Identification Phase is to prioritize ongoing mission analyses that review or endorse emerging needs. The analyses should be capabilities oriented and should identify new requirements or gaps in Coast Guard capabilities. A secondary objective is to develop a rough-order-of-magnitude (ROM) cost estimate and associated timelines as part of an acquisition forecast to allow a preliminary affordability assessment prior to inclusion in the Capital Investment Plan (CIP).

2. Project Identification Phase Activities

Commandant (DCO-81) Project Management Activities
Initiate MA and coordinate with Commandant (CG-5R/P), TAs, Sponsor(s) and FORCECOM to identify capability gaps
Develop MARs with support from Commandant (CG-5R/P), the Sponsor(s), FORCECOM, TAs, and Acquisition Support Organizations
Sponsor's Project Management Activities
Support Commandant (DCO-81) in the mission analyses to identify capability gaps and in developing the MARs
Work with Commandant (CG-82) on a budget/program review to develop a preliminary affordability assessment
SELC Activities
Perform MA
Define the mission, identify mission objectives and accompanying functional requirements
For each functional requirement, identify the operational tasks, conditions and standards needed to achieve the requirement
Initiate integration with TAs
Review Coast Guard capabilities and associated capacities. Compare existing and programmed capabilities and capacities to mission functional requirements, tasks, conditions and standards
Describe capability gaps, overlaps or problems identified in mapping capabilities to requirements, in operational terms
Describe what additional functional areas may be involved in the problem or solution
Review, assess and prioritize potential impacts on these capability gaps or changes in DOTMLPF+R/G/S
Determine if integrated DOTMLPF+R/G/S approaches can fill capability gaps
Describe the key attributes of approaches considered to resolve gaps. Ensure purpose, tasks, conditions, and standards are addressed
Identify potential solutions to address the needs
If the Sponsor determines that the capability gap(s) can be partially or completely addressed by a potential solution based on the integrated DOTMLPF+R/G/S approach, the Sponsor will coordinate an appropriate implementation recommendation

Enterprise Architecture Activities (if applicable)

Conform to established DHS EAB strategic planning and IT guidance provided in the DHS EAB Governance Process Guide (series). Refer to DHS's website at: <http://dhsconnect.dhs.gov/org/comp/mgmt/cio/oat/Documents/EAPMO/HLS%20EA%202010/governance.htm>

3. Project Identification Phase Significant Accomplishments**Accomplishments**

Completed MAR

Development of a ROM cost estimate and preliminary affordability assessment

4. Project Identification Phase Documentation

Documentation required to enter the Need Phase is presented in **Table 3 Project Identification Phase Documentation**.

Table 3 Project Identification Phase Documentation

Document	Preparation	Review	Approval
MAR	DCO-81 or DCO Program/Mission Manager	CG-5P/R	DCO
Preliminary Affordability Assessment	Sponsor's Rep.	CG-821	CG-82

5. ADE-0 Review and Expected Outcomes**DCMS/DCO ADE-0 Review**

Early review for affordability and identification of resources needed for next phase

Direction to prepare documents such as: a Resource Proposal (RP), initial Exhibit 300, and the MNS, CONOPS, AStr, and CDP

Provides the opportunity to reprogram resources with Sponsor or PEO approval

DCMS ADE-0 Decision

Confirmation of necessary resources through budget decision

Authorization to proceed into Need Phase

C. Need Phase

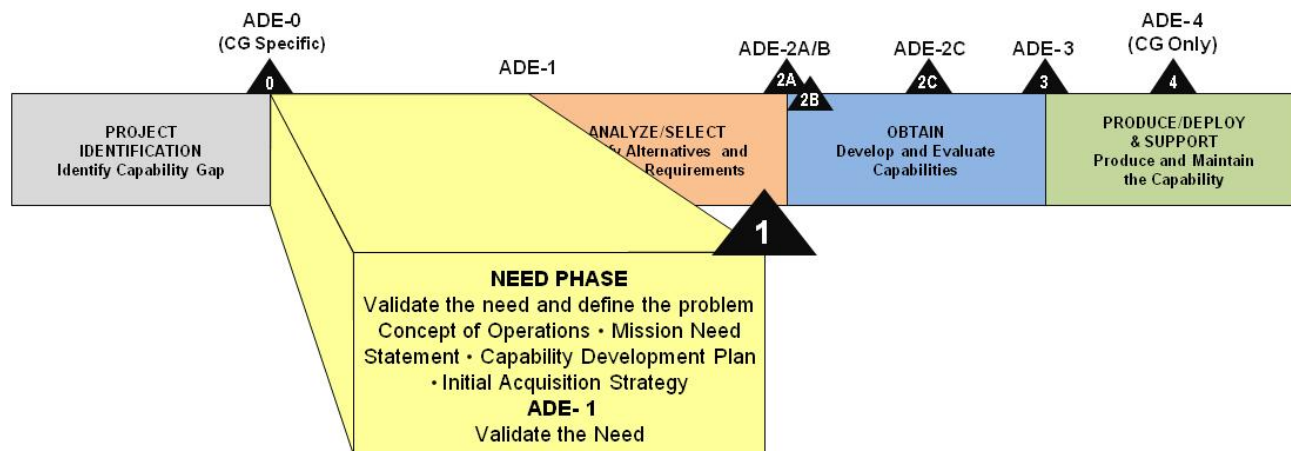


Figure 5 Need Phase

The Need Phase, as shown in **Figure 5 Need Phase**, includes activities to describe the specific functional capabilities required to address the capability gap in Coast Guard mission performance and culminates with a MNS, the CONOPS, an initial Exhibit 300, an initial AStr, and inclusion in the CIP. In assessing the need, the Coast Guard should consider the Integrated Planning Guidance (IPG) issued by the DHS Assistant Secretary for Policy and how the identified need aligns with the DHS Strategic Plan. The MNS and CDP are approved separately by the DHS ADA. The completion of this phase signifies the start of the acquisition activities by entering the Analyze/Select Phase.

1. Need Phase Objectives

The Sponsor is responsible for preparing a MNS, with support from Commandant (CG-5R/P), and appropriate input from FORCECOM and the acquisition community, TAs and industry representatives (through market research and Requests for Information (RFI)). The MNS describes the mission(s) and needed capabilities, justifies the project and sets the project boundaries.

NOTE: Reference (b) calls for development of a Component Preliminary MNS (P-MNS), to support identification of potential multi-Component or multi-Department mission need. A P-MNS is also an element of information considered in DHS Program Resource Board decisions on funding (e.g., to insert a wedge of funding for a new start in the FYHSP). In the Coast Guard, the draft MNS shall – upon signature by the Assistant Commandant for Capabilities (CG-7) – be considered a P-MNS, and submitted to DHS via Commandant (CG-924).

The CONOPS is developed by a multi-functional team, led by the Sponsor under direction of Commandant (DCO). The CONOPS provides an operational mission framework for the project.

The Sponsor is to describe:

- 1) a proposed asset or system in terms of the user needs it will fulfill;
- 2) its relationship to existing assets, systems or procedures; and
- 3) the ways it will be used.

Early user involvement in CONOPS development provides realistic operational background while extensive collaboration is applied to obtain consensus among the mission managers, Sponsor, acquirer, developer, support, and other user entities within the Coast Guard on the operational concept of a proposed system. The CONOPS is finalized in the Analyze/Select Phase (per Reference (a) and Reference (b)); however, the Coast Guard advocates early development of the CONOPS with the MNS in the Need Phase.

The CDP and initial AStr, and if needed an Acquisition Plan (AP) for any acquisitions necessary to accomplish the specified CDP activities, are prepared in the Need Phase and implemented in the Analyze/Select Phase. The CDP identifies the planned Analyze/Select Phase activities as well as defines the necessary resources to perform these activities. The CDP establishes an agreement between the acquisition project and Coast Guard and DHS leadership on the activities, and cost, schedule, and performance boundaries for the Analyze/Select Phase. The CDP will be completed by the acquisition organization prior to ADE-1 or up to 90 days after ADE-1 if a PM is not assigned until ADE-1.

The Sponsor's Representative will draft and submit the Exhibit 300 during the Need Phase.

A Preliminary AStr planning brief is to be presented to Commandant (CG-9) prior to ADE-1. The intent of this brief is to provide leadership an early assessment of reasonable acquisition approaches so that decisions can be made to align resources to a strategy that offers the best potential value to the Coast Guard. This will also provide an early opportunity to adjust the project's near term budget plan to accommodate the preferred approach. The brief must include a preliminary view of project need, cost, capability or performance and any known risks. This brief should include options for level of competition and overall contracting strategies. It should also address any resources or acquisitions necessary to accomplish the specified CDP activities during the Analyze/Select Phase. The format of the brief is at the Program Manager's (PM - if assigned) discretion. An approved version of this brief will be presented as the Preliminary AStr at ADE-1.

NOTE: Commandant (CG-7) has developed a Requirements Generation and Management Process (PUB 7-7) for use in developing the P-MNS, MNS, CONOPS, P-ORD and ORD requirements documentation for Major Systems Acquisitions; contact Commandant (CG-771) for further information.

2. Need Phase Activities

Sponsor Representative Activities

Prepare the MNS, as directed by the Sponsor

Sponsor Representative Activities
Prepare the CONOPS document, as directed by the Sponsor
Prepare initial Exhibit 300, as directed by the Sponsor
Prepare a RP for the initial project funding and staffing, as directed by the Sponsor
Update Preliminary Affordability Assessment as directed by the Sponsor
Ensure the project is included in the CIP, as directed by the Sponsor
Program/Project Management Activities
Prepare the CDP
Prepare the initial AStr (High-level statement of Need, Cost, Capability or Performance, and Risk). Provide Acquisition Strategy Brief
Human Systems Integration Activities
Identify manpower constraints of the system
Describe the human performance gaps
Define human performance initiatives
Identify manpower RP needs
Collaboratively participate in the development of the CONOPS
Include Performance Support & Training scenarios in CONOPS
Enterprise Architecture Activities (if applicable)
For IT projects only , refer to Circular No. A-11 Preparation, Submission, And Execution of the Budget (OMB Circular No. A-11), Part 7. OMB updates this guidance annually. Refer to OMB's website at: http://www.whitehouse.gov/omb/circulars_a11_current_year_a11_toc/
Conform to established DHS EAB strategic planning and IT guidance provided in the DHS Enterprise Architecture Board (EAB) Governance Process Guide (series). Refer to DHS's website at: http://dhsconnect.dhs.gov/org/comp/mgmt/cio/oat/Documents/EAPMO/HLS%20EA%202010/governance.htm
RDT&E Activities (if applicable/as needed)
Provide analytical evaluation, technology demonstration, and Modeling and Simulation (M&S) support for CONOPS development and Affordability Assessment

3. Need Phase Significant Accomplishments

Accomplishments
Defined the mission need
Defined the CONOPS
Developed Exhibit 300 to justify entry into the budget

Accomplishments
Developed the CDP and initial AStr
Obtained CAE authorization to proceed to DHS ADE-1 to obtain ADA authorization to enter the Analyze/Select Phase
Obtained ADA approval at ADE-1 to enter the Analyze/Select Phase

4. Need Phase Documentation

Documentation required for DHS ADE-1 approval is presented in **Table 4 Need Phase Documentation**.

Table 4 Need Phase Documentation

Document	Task	Preparation	Approval
Mission Need Statement	Prepare	Sponsor's Rep.	CAE/DHS ADA
Concept of Operations	Prepare	Sponsor's Rep.	Sponsor
Affordability Assessment	Prepare	Sponsor's Rep.	CG-82
Capability Development Plan	Prepare	PgM (PM - if assigned)	CG-9/DHS ADA
Preliminary Acquisition Strategy/ Brief	Prepare	PgM (PM - if assigned)	CG-9
Exhibit 300	Prepare	Sponsor	CG-82

5. ADE-1 Review and Expected Outcomes

CG ARB ADE-1 Review
Direction to assign a PM and core project team, recognizing priority and need for early project management discipline for success
CAE authorize project to proceed to DHS for ADE-1 approval to enter into the Analyze/Select Phase

DHS Acquisition Review Board ADE-1 Review
ADA approve ADE-1 for Level 1 and Level 2 acquisitions and authorize entry into the Analyze/Select Phase
ADA approve MNS (the MNS may be approved prior to ADE-1)
ADA approve CDP (at or within 90 days of ADE-1 Review)
ADA approve proposed Analyze/Select Phase Exit Criteria
ADA issues an ADM

D. Analyze/Select Phase

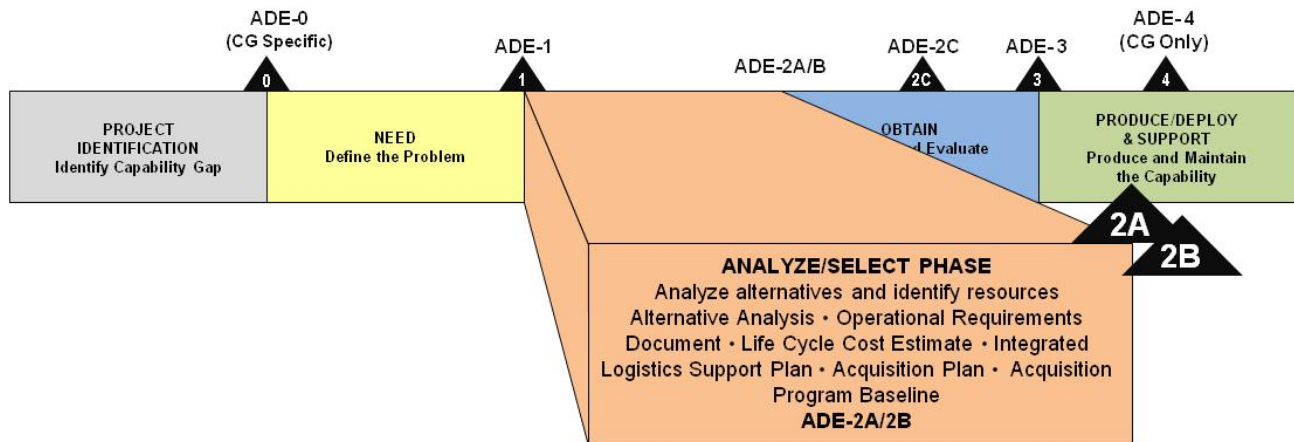


Figure 6 Analyze/Select Phase

The Analyze/Select Phase, as shown in **Figure 6 Analyze/Select Phase**, explores alternatives to fill validated user mission capability gaps in the MNS with effective, suitable and affordable materiel-based solutions. The CDP provides the overall guide and schedule for the activities to be conducted during the Analyze/Select Phase.

Alternative solutions are identified through market research and feasibility studies with emphasis placed on innovation and competition. Promising alternatives are evaluated through an AA, and a detailed Cost Estimating Baseline Document (CEBD) then a LCCE/ICE/PLCCE are developed for the preferred solution. Opportunities for tradeoffs are explored, the acquisition strategy is refined and initial logistics support and test and evaluation strategies are developed during this phase.

1. Analyze/Select Phase Objectives

The objectives of the Analyze/Select Phase are to establish the requirements, evaluate the feasibility of alternatives that will achieve the requirements, and provide a basis for assessing the relative merits (e.g., advantages and disadvantages, degree of risk, LCC, supportability, and cost-benefit) of the alternatives to determine a preferred solution. During the Analyze/Select Phase, the CEBD, LCCE and ICE are prepared for the preferred solution, and then reconciled into a final best estimate called the PLCCE. An Independent Logistics Assessment (ILA) is performed no later than two months prior to ADE-2A/2B, in accordance with Coast Guard Independent Logistics Assessment (ILA), COMDTINST 4081.19 (series). In the Analyze/Select Phase, the ILA checks acquisition plans and resource documents to ensure they will provide the required logistics support, and assesses policies and processes to ensure they will consistently produce high-quality logistics plans.

Acquisition Plan: Per Reference (b), “The Acquisition Plan (AP) is a living document used throughout the acquisition life cycle.” Therefore, the project level AP is developed during the Analyze/Select Phase to include detailed acquisition planning that supports the AStr. Refer to Reference (b) for more information on AP development. The full content of an AP is prescribed by the DHS Acquisition Planning Guide (found in DHS Acquisition Manual (HSAM) Appendix H). Generally, AP submission is covered by the

HSAM, which states, “...all Component HCAs shall submit acquisition plans to the CPO for approval not later than 45 days prior to the scheduled [Acquisition Review Board].” Refer to HSAM Subchapter 3007.103(h) (1) (ii) and (iii) and their respective sub-parts for detailed AP submission timeline requirements. HSAM Subchapter 3007.102(2) states, “No solicitations may be issued, or funds transferred within or outside the Department until an acquisition plan (AP) has been completed and approved.”

NOTE: The HSAM may be found in its entirety at:
http://www.dhs.gov/xlibrary/assets/opnbiz/cpo_hsam.pdf.

Requirements Development: During the Analyze/Select Phase, the initial concept provided in the MNS and expressed in the CONOPS is refined through a systematic requirements generation process (defined in Chapter 4), identifying alternatives, and developing a technology development strategy (if the preferred solution involves technology that is still under development) to define requirements.

Alternatives Analysis: The AA is an independent analysis which identifies and documents the most resource efficient method of satisfying an identified mission capability gap.

Logistics Support Planning: Logistics support concepts, specific logistics support requirements (i.e., metrics such as Reliability, Maintainability, Availability), and any logistics support constraints that must be satisfied are identified during the Analyze/Select Phase. Analysis support will be provided by the Acquisition Project Office (APO). The initial ILSP must be developed and approved.

Intelligence Support Planning: PMs shall work with the Sponsor and CG-2 to identify whether the project will have Critical Program Information (CPI), intelligence capabilities, or intelligence requirements. If it is determined that any of those conditions exist, an Intelligence Support Plan (ISP) will be developed in accordance with CG-2 guidance, otherwise an ISP is not required.

NOTE: Along with the ADE-2A and ADE-2B pre-brief to the EOC, the project may want to present the results of the Solutions Engineering Review (SER) to minimize the number of briefings to EOC. The SER Completion Letter (Chapter 3) may be signed at the above pre-brief to the EOC. For combined ADE-2A/2B, the project will need to also complete Planning Stage activities and the associated Project Planning Review (PPR). In this case, the project may present results of the SER and PPR to the EOC in the ADE-2A/2B pre-brief.

2. Analyze/Select Phase Activities

The approved CDP serves as the roadmap for the activities to be performed in the Analyze/Select Phase. The CDP will function as the Project SELC Tailoring Plan (PSTP) until after ADE-2A/2B. The project should notify Commandant (CG-93) and DHS Program Accountability and Risk Management (PARM) in a timely fashion of significant variances in the execution of the planned CDP events and schedule.

Specific activities and responsibilities during the Analyze/Select Phase are delineated below.

Sponsor Representative Activities
With inputs from FORCECOM and other members of the Operational Requirements Document Integrated Product Team, prepare P-ORD and ORD
Project Management Activities
Establish a project matrix/IPT team
Charter IPT
Expand details and content of the Project's AStr to develop AP
Develop the Alternatives Analysis Study Plan (AASP)
Develop Project SELC Tailoring Plan (PSTP)
Conduct the AA
Develop CEBD (foundation for LCCE)
Develop LCCE
Coordinate development of the Independent Cost Estimate (ICE)
Adjudicate differences between LCCE & ICE and develop PLCCE (single best estimate) to support APB and RAP/RAD process
Update Exhibit 300 ¹
Prepare Project Management Plan (PMP)
Prepare Risk Management Plan (RMP)
Develop Human Systems Integration Plan (HSIP), with inputs from Commandant (CG-1B3)
Prepare the Configuration Control Board (CCB) Charter
Organize the CCB
Update Affordability Assessment (AAS)
Develop APB
Identify the LRIP quantity to be approved at ADE-2A/2B (if applicable)
Work with Commandant (CG-6) to review the preferred solution and formally designate the system as a C4IT or C4IT related system if applicable
Develop Obtain Phase Exit Criteria

¹ Exhibit 300s are submitted annually in September and then rolled out to the Federal IT Dashboard in February.

SELC Activities
Conduct the AA Study Plan Review (SPR)
Assist with finalizing operational requirements
Identify major trade-off opportunities for cost, schedule and performance
Conduct market research to identify available alternatives
Conduct feasibility studies and/or cost and performance trade-off studies
Explore alternatives and assess the major strengths and weaknesses of each

SELC Activities

Assess the continued availability of materiel and manufacturing sources for each alternative to ensure long term supportability

Perform necessary research and testing to address technology maturity and identify integration and interoperability requirements to address and mitigate known risks

Conduct Technology Readiness Assessments as part of systems engineering management reviews

Initiate the NEPA process

Initiate preparation of system specification and Statement of Work (SOW) in coordination with TAs

Initiate configuration management planning

Prepare Configuration Management Plan (CMP)

Conduct the Solutions Engineering Review (SER)

Develop Project SELC Tailoring Plan

Logistics Management Activities

Initiate logistics support planning

Organize the Integrated Logistics Support Management Team

Establish support concept

Implement initial support plans

Initiate the supportability analysis

Establish maintenance concept

Prepare the ILSP

Conduct the Independent Logistics Assessment (ILA)

Human Systems Integration Activities

Initiate Human Systems Integration (HSI) planning (including Manpower, Personnel, Training, Human Factors Engineering (HFE), System Safety, Personnel Survivability, and Habitability)

Initiate studies and analyses for manpower requirements to operate, maintain, support, and instruct the system

Initiate studies and analysis for HFE design

Plan for the development of HSI, HFE and System Safety Program Plans by the contractor *

Identify HSI requirements and standards for input into requirements development, including P-ORD and ORD

Perform task analyses on legacy assets and platforms

Research lessons learned with regard to human performance issues, physiological limitations, and system safety engineering design

Human Systems Integration Activities
Document preliminary approach to Performance Support & Training solution development
Forecast high dollar/long lead time training aid and facility requirements
Identify Performance Support & Training requirements for inclusion in the ORD
* Commandant (CG-1B3) is to be contacted for format and content of the HSI, HFE, and System Safety Program Plans that need to be included in the contract. PMs are to coordinate with Commandant (CG-1B3) for a cost estimate to manage the development and implementation of the plans.

T&E Activities
Develop test strategy
Identify Operational Test Agency (OTA)
Initiate Developmental Test and Evaluation (DT&E) and Operational Test and Evaluation (OT&E) planning
Establish and charter the Test Management Oversight Team
Prepare the TEMP
Support analytical evaluation, technology demonstration, and Modeling and Simulation (M&S) activities, as needed for P-ORD and ORD development

Enterprise Architecture Activities
For IT projects only , refer to Circular No. A-11 Preparation, Submission, And Execution of the Budget (OMB Circular No. A-11), Part 7. OMB updates this guidance annually. Refer to OMB's website at: http://www.whitehouse.gov/omb/circulars_a11_current_year_a11_toc/
Conform to established DHS EAB strategic planning and IT guidance provided in the DHS Enterprise Architecture Board (EAB) Governance Process Guide (series). Refer to DHS's website at: http://dhsconnect.dhs.gov/org/comp/mgmt/cio/oat/Documents/EAPMO/HLS%20EA%202010/governance.htm

3. Analyze/Select Phase Significant Accomplishments

Accomplishments
Completed SPR
Obtained approval of AASP
Completed the AA
Completed SER
Defined the requirements for the asset or system in a P-ORD/ORD
Structured the project in fully funded discrete segments (if applicable)
Completed the CEBD/LCCE

Accomplishments
Completed the ICE
Completed PLCCE
Completed ILA (no later than 2 months prior to ADE-2A, in order to meet DHS requirements)
Satisfied Analyze/Select Phase Exit Criteria
Obtained CAE authorization to proceed to DHS ADE-2A/2B
Obtained ADA approval for the LRIP quantity (if applicable)
Obtained ADA approval of preferred alternative
Obtained ADA approval to enter Obtain Phase

4. Analyze/Select Phase Documentation

Documentation required for DHS ADE-2A/2B approval is presented in **Table 5 Analyze/Select Phase Documentation**.

Table 5 Analyze/Select Phase Documentation

Document	Task	Preparation	Approval
Manpower Estimate Report	Prepare	CG-1B3	CG-1
Human Systems Integration Plan	Prepare	PM/CG-1B3	CG-9
Alternatives Analysis Study Plan	Prepare	Study Director	CG-9
Alternatives Analysis Report	Prepare	Study Director	CAE
Operational Requirements Document	Prepare	Sponsor's Rep.	CAE/DHS ADA
Acquisition Plan	Prepare	PM/Contracting Officer	DHS OCPO \geq \$300M HCA < \$300M
Project Management Plan	Prepare	PM	CG-9
Acquisition Program Baseline	Prepare	PM	CAE/DHS ADA
Integrated Logistics Support Plan	Prepare	PM	DCMS/DHS ADA
Configuration Management Plan	Prepare	PM	CG-93
Risk Management Plan	Prepare	PM	CG-93
Test and Evaluation Master Plan	Prepare	PM	CG-9/ DHS DOT&E
PLCCE	Prepare	PM	CG-9/DHS PARM
Project SELC Tailoring Plan	Prepare	PM	CG-93/DHS ADA

Document	Task	Preparation	Approval
Affordability Assessment	Update	PM	CG-82

5. ADE-2A & ADE-2B Reviews and Expected Outcomes

Although shown in separate decision event listings below, a combined ADE-2A/2B will typically be conducted by the Coast Guard at initial entrance to the Obtain Phase. There is only one combined ADE-2A/2B for each project while there may be several follow-on ADE-2B events for individual discrete segment approvals.

CG ARB Review	Milestone	
CAE approve recommended alternative	ADE-2A	
Endorse proposed Obtain Phase Exit Criteria	ADE-2A	
CAE approve LRIP quantities	ADE-2A	
Authorize to proceed to DHS ADA	ADE-2A	
CAE approve project Discrete Segments		ADE-2B
Authorize to proceed to DHS ADA		ADE-2B

DHS Acquisition Review Board Review	Milestone	
ADA approve recommended alternative and authorize entry into Obtain Phase	ADE-2A	
ADA approve LRIP quantities, if applicable	ADE-2A	
ADA approve proposed Obtain Phase Exit Criteria and APB	ADE-2A	
ADA approve project Discrete Segments		ADE-2B
ADA issues ADM	ADE-2A	ADE-2B

E. Obtain Phase

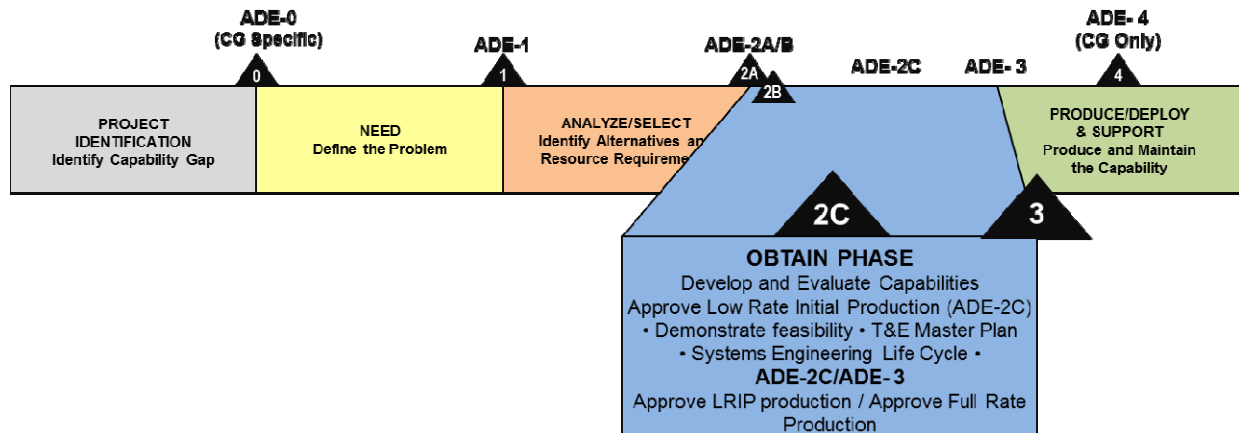


Figure 7 Obtain Phase

The Obtain Phase, as shown in **Figure 7 Obtain Phase**, is focused on demonstrating feasibility of the preferred alternative and refining the solution prior to a full production (hardware) commitment or deployment (software) decision. The purpose of the Obtain Phase is to expand the high-level requirements of the Analyze/Select Phase into specific detailed requirements producing a complete detailed specification of the capability. All requirements defined in the ORD must be satisfied by this specification. Finally, the initial capability is designed, developed, tested and produced during this phase. Although much of the area of concern in this phase addresses the equipment that will provide the capability, this phase also puts into place any required infrastructure, logistics support, and refines the CONOPS and other important elements of the overall capability. Technology demonstrators and/or system level test assets are often developed to demonstrate that the design meets the capability specifications and requirements.

Depending upon project objectives, the Obtain Phase is unique in that it may encompass multiple acquisition decision events – ADE-2B (for multiple discrete segment approvals), ADE-2C (for LRIP approval) and ADE-3 (for full-rate production approval). Following ADE-2B approval the project implements the requisite SELC activities, conducts developmental and operational testing, and matures project management documentation to support the ADE-3 decision to proceed into the Produce/Deploy and Support Phase.

1. Obtain Phase Objectives

Obtain Phase activities include developing the first system level test article for the completion of DT&E. OT&E is conducted on production representative unit(s) to confirm that the system meets requirements as described in the MNS and the ORD.

Multiple objectives must be attained during this phase, including:

- Translating the most promising design approach developed in the Analyze/Select Phase into a stable, producible, and cost effective product design;
- Determining that the detailed product design is 75-90% mature as determined by the Technical Authority prior to CDR;

- Demonstrating the manufacturing or production processes;
- Demonstrating that the product capabilities meet contract specifications, minimum acceptable operational performance requirements, system security requirements, and satisfy the mission need; and
- Determining whether the product design is mature enough to commit to full production and deployment/fielding.

Projects with Discrete Segments: The ADE-2B decision approves the expansion of the APB to include additional segments of capability laying out the cost, schedule and performance parameters for each discrete segment within the project. If applicable, the project's Initial Operational Capability (IOC) and Final Operational Capability (FOC) dates will be established at ADE-2A (in the APB schedule). While there will typically be one ADE-2A review for each project as part of a combined ADE-2A/2B decision event, there may be multiple ADE-2B segment reviews with subsequent ADE-2C and/or ADE-3 reviews for each segment depending on the discrete segment structure proposed for the project.

Low Rate Initial Production (LRIP): LRIP units required for OT&E and the initial production capability are engineered and produced during this phase. The quantity of LRIP units is approved at ADE-2A/2B and approval to commence LRIP production is achieved at ADE-2C. The DHS Instruction/Guidebook 102-01-001 section VI.G.7 states, "Rationale for quantities greater than 10% of the full production quantities identified in the acquisition plan must be documented." LRIP contract award prior to ADE-2C is not authorized unless a waiver has been granted by the Coast Guard CAO. ADE-2C will be scheduled to occur after completion of the CDR and PRR to ensure adequate system maturity and production readiness has been achieved and all significant risks are identified and adjudicated. Along with the ADE-2C pre-brief to the EOC, the project may want to present the results of the CDR and PRR, and an updated AP to minimize the number of briefs to the EOC. The approved quantity for LRIP may not be exceeded unless authorized by the ADA. Note that Full-Rate production contract award prior to ADE-3 approval is not authorized unless a waiver has been granted by the ADA.

The Obtain Phase also includes preparation of the Project Management Data Sheet (PMDS) for submission to Commandant (CG-8) describing the project funding, types of assets, asset delivery schedule, acceptance criteria and valuation criteria. Guidance on the PMDS is located in the Financial Resources Management Manual (FRMM), COMDTINST M7100.3 (series). Questions on PMDS procedures can be sent via e-mail to: HQS-PF-CIP-Projects@uscg.mil

Coast Guard Authorization Act of 2010: Safety concerns identified during DT or OT shall be communicated as soon as practicable (not later than 30 days after test completion) to the PM and CAO. Any safety concerns that are expected to be uncorrected or unmitigated prior to contract award or delivery/task order issue shall be reported to the appropriate Congressional committee(s) at least 90 days prior to award of any contract or issuance of and delivery/task order for low, initial, or full-rate production of the asset or system.

2. Obtain Phase Activities

Sponsor Representative Activities
Revalidate the mission need and the operational requirements
In coordination with FORCECOM and TAs, initiate development of the requirements for sustainment resources, both funding and personnel
Develop the sustainment RP (if appropriate)
Develop Deployment Plan (DP)
Project Management Activities
Determine full rate production quantity, develop cost and schedule milestones for useable segments
Revalidate the APB, and update AA to ensure that the mission need remains current, the project performance measures are being met, and the planned Produce/Deploy and Support Phase structure of increments of capability remains affordable within the Coast Guard capital acquisition portfolio
Submit system accreditation documentation to the Designated Approving Authority via the System Certifying Authority for Authority to Operate decision (IT only)
Obtain Frequency Assignments Authorization (IT only) /Frequency Spectrum Authorization (coordination with Commandant (CG-6) required)
Coordinate with the Sponsor to initiate deployment/fielding planning and assist in the preparation of the DP by the Sponsor
Prepare the RP and the necessary budget documentation including updated E300 to support the project as a line item in Coast Guard budget requests
Update the APB with specific Cost, Schedule and Performance objectives for Discrete Segments (if appropriate)
Update or revalidate the AStr/AP
Update the PLCCE (for major cost changes and/or for ADE-3)
Update or revalidate the TEMP
Ensure compliance with all internal Coast Guard IT requirements, in collaboration with Commandant (CG-6)
Meet Security and Privacy requirements
Meet Government Paperwork Elimination Act requirements
SELC Activities
Update the Project SELC Tailoring Plan (as necessary)
Conduct evaluations, assessments, and analyses of the performance characteristics and recommend solutions to performance problems
Finalize planned technology demonstrations or insertions
Ensure NEPA analysis is conducted in accordance with National Environmental Policy Act Implementing Procedures and Policy for Considering Environmental

SELC Activities
Impacts, COMDTINST M16475.1 (series)
Determine the design maturity of the new capability
Analyze capability design documentation, user manuals, capability specifications, and other documentation to determine the degree the capability performs its intended purpose
Implement project configuration management program through the CCB
Review and recommend for approval or disapproval, all configuration changes and proposed alterations that will modify a system's functional characteristics or operational requirements
Conduct Project Planning Review (PPR)
Conduct System Definition Review (SDR)
Monitor the Configuration Management process by working with the project configuration manager to ensure the system configuration remains in agreement with the approved configuration baseline(s) and documentation
Ensure that the Configuration Status Accounting database is current and configuration control is being exercised effectively
Monitor the IT system security process by working with the assigned Information System Security Officer to ensure the Information Assurance controls remain enforced as specified in the approved IT system security plan
Refine and mature preliminary design and conduct Preliminary Design Review (PDR)
Refine and mature detailed design and conduct CDR – an accepted Rule of Thumb is that 75-90% of required manufacturing quality drawings, software design specifications and critical analyses should be completed for CDR
Evaluate whether the capability is effectively meeting the functional requirements, is operating efficiently, and is effectively managed
Complete production design specifications
Refine integrated system test plans and conduct Integration Readiness Review (IRR)
Refine and mature initial production design/capabilities and conduct PRR
Conduct Operational Test Readiness Review (OTRR)
Conduct Operational Readiness Review (ORR)

Logistics Management Activities
Update the logistics support requirements in the ILSP for the selected alternative
Design the logistics support system
Continue the supportability analysis (as needed)
Determine maintenance levels consistent with maintenance concept through Level

Logistics Management Activities
of Repair Analysis (LORA)
Conduct Functional Configuration Audit (FCA)
Finalize supply support requirements (provisioning)
Ensure Diminishing Manufacturing Sources and Materiel Shortages (DMSMS) is addressed and perform assessments of subsystems and components to be included to ensure long term supportability and availability of materiel and manufacturing sources
Perform fitting out activities
Update and finalize supportability requirements
Provide logistics support for OT&E
Conduct Physical Configuration Audit (PCA)
Identify and establish contractor logistics support required for initial deployment
Conduct assessment of initial/subsequent logistics readiness for all logistic elements

Human Systems Integration Activities
Revalidate the HSI requirements and plans
Ensure the requirement for the HSIP, HFEP and SSPP are incorporated in the contract.
NOTE: Commandant (CG-1B3) is to be contacted for format and content of the HSIP, HFEP, and SSPP that need to be included in the contract. Commandant (CG-1B3) is to be a member of the project's RFP development team.
Ensure implementation and execution of the HSIP, HFEP and SSPPs
Provide human performance and safety data and analysis for design implications
Update studies and analyses for manpower requirements to operate, maintain, support and instruct the system
Perform simulation and prototyping
Develop Performance Support & Training Strategic Needs Assessment (SNA), including Analysis and Evaluation Plans
Determine and evaluate cognitive and physical workload
Assess human and system performance
Support test and evaluation for validation and verification of human performance and safety requirements
Develop and execute initial and interim Performance Support and Training (PS&T) solutions
Procure long lead-time, high-dollar training aids and facilities
Validate initial and interim training requirements solutions

T&E Activities
Determine if the capability meets established ORD performance thresholds
Develop detailed test plans and procedures
Conduct testing on prototype(s), engineering development model(s), first system-level test article and/or LRIP units
Conduct Security T&E, including testing, evaluating, and verifying the IT security controls (IT only)
Conduct a Risk Assessment to document the threat environment (IT only)
Conduct a Preliminary Acceptance Trial, First Article Test, or System Level Test, as applicable
Complete DT&E and subsequent Report
Participate in OTRR to confirm readiness for OT&E
Conduct OT&E, including testing, modeling (if appropriate), evaluating, and verifying the support system
Provide DT&E and OT&E test results to the CAE and to DHS ARB to support the decision to enter the Produce/Deploy and Support Phase
Plan follow-on DT&E and OT&E as indicated
Provide analytical support, as needed, for Sponsor and PM's revalidation activities

Enterprise Architecture Activities (if applicable)
For IT projects only , refer to Circular No. A-11 Preparation, Submission, And Execution of the Budget (OMB Circular No. A-11), Part 7. OMB updates this guidance annually. Refer to OMB's website at: http://www.whitehouse.gov/omb/circulars_all_current_year_all_toc/
Meet Security and Privacy requirements
Meet Government Paperwork Elimination Act requirements
Conform to established DHS EAB strategic planning and IT guidance provided in the DHS Enterprise Architecture Board (EAB) Governance Process Guide (series). Refer to DHS's website at: http://dhsconnect.dhs.gov/org/comp/mgmt/cio/oat/Documents/EAPMO/HLS%20EA%202010/governance.htm

3. Obtain Phase Significant Accomplishments

Accomplishments
Completed PPR, PDR, CDR, IRR, PRR, OTRR and ORR
Completed ADE-2C for LRIP
Satisfied Obtain Phase Exit Criteria
Logistics system design is identified and implemented
Completed DHS EAB Review (IT Only)
Verified the adequacy and readiness of the manufacturing or production processes

Accomplishments
for low rate and full rate production
Confirmed the stability and producibility of the product
Completed DT&E – verify readiness for IOT&E
Completed IOT&E – results acceptable to the Sponsor
Established required full rate production quantity
Achieved IOC (if applicable)
Satisfied asset capitalization requirements for delivered assets

4. Obtain Phase Documentation

Documentation required for DHS ADE-3 approval is presented in **Table 6 Obtain Phase Documentation**.

Table 6 Obtain Phase Documentation

Document	Task	Preparation	Approval
Acquisition Plan	Update	PM	DHS OCPO \geq \$300M HCA < \$300M
Developmental Test Plan	Prepare	PM	PgM
Developmental Test Report	Prepare	PM	PgM
Operational Test Plan	Prepare	OTA	DOT&E
Operational Test Report	Prepare	OTA	OTA
Affordability Assessment	Update	PM	CG-82
Integrated Logistics Support Plan	Update	PM	DCMS/DHS ADA
PLCCE	Update	PM	CG-9/DHS PARM
Deployment Plan	Prepare	Sponsor's Rep.	Sponsor

5. ADE-2C Review and Expected Outcomes

CG ARB ADE-2C Review
Approves readiness for ADE-2C reviews by ADA
DHS ARB ADE-2C Review
ADA authorizes LRIP
ADA issues ADM

6. ADE-3 Review and Expected Outcomes

CG ARB ADE-3 Review
Approves readiness for ADE-3 reviews by ADA

DHS ARB ADE-3 Review

ADA authorizes Full Rate Production and entry into the Produce/Deploy and Support Phase, to include full rate production contracting award

ADA issues ADM

F. Produce/Deploy and Support Phase

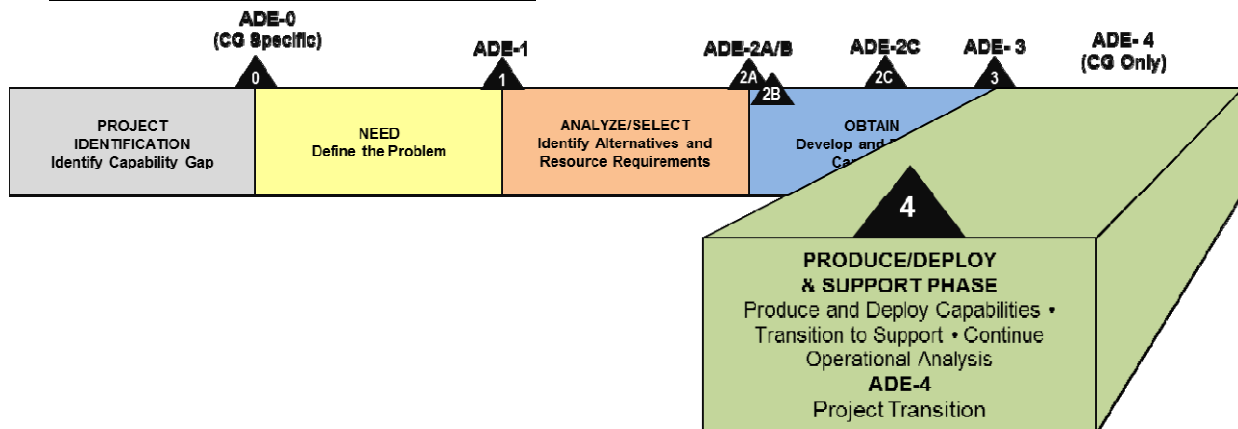


Figure 8 Produce/Deploy and Support Phase

The Produce/Deploy and Support Phase, as shown in **Figure 8 Produce/Deploy and Support Phase**, follows ADE-3 and encompasses two primary functions – Produce/Deploy (P/D) and Support. The P/D activities produce assets for deployment into operational use. The asset should achieve operational capability that satisfies mission needs. The initial support capability in terms of materiel, technical data, trained personnel, support equipment, and infrastructure has been delivered and is in place. Replacement and replenishment of this support capability is accomplished, as necessary. Engineering changes to modify or enhance the operational capability of the assets are accomplished when necessary to improve reliability, maintainability, or safety, to adapt to changing mission requirements and to replace equipment items that are approaching obsolescence. P/D activities culminate with the successful achievement of FOC.

During the Produce/Deploy and Support Phase, the Coast Guard unique ADE-4 Project Transition Review officially completes the acquisition program's production and deployment and marks the formal transition to steady state operations and support. Following ADE-4, the acquisition project is completed and all responsibilities for operations and support are transitioned to the sustainment community. All active major acquisition projects brief the CG ARB on project performance, annually. The project's last annual CG ARB Review will be used for the ADE-4 Project Transition Review. The PM is expected to brief the details of the Project Transition Plan (PTP) and the Program/Support Sponsor briefs the details of the updated ILSP as part of the official transition of project management responsibility to the operating and support Programs. The PM is responsible for ensuring the PTP is developed and approved prior to the ADE-4 Project Transition Review. Commandant (CG-924) is responsible for the drafting of the Project Responsibilities Transfer Letter (PRTL) for the ADE-4 event. The template for the PRTL is in the MSAM Handbook. ADE-4 coincides with the change in leadership of the project matrix/IPT team.

1. Produce/Deploy Phase Objectives

The primary objective of P/D is to deliver production units authorized by ADE-3 approval. For IT systems, the system itself is a production unit. Software developed in the Obtain Phase as useable segments are prepared for and deployed to an operational environment. Additional objectives of the P/D Phase are to:

- Ensure a stable and cost efficient production and support base;
- Achieve an operational capability or discrete segment of operational capability that satisfies the mission need and meets operational requirements;
- Conduct follow-on testing to confirm and monitor performance and quality and verify correction of deficiencies (as necessary);
- Ensure logistics are in place to support end-items (establish interim support provisions, as necessary); and
- Ensure each fielded asset is ready for unrestricted operations and complete the hand-off to the operational commander.

A Post Implementation Review (PIR) shall be conducted by the Sponsor, in conjunction with the project office, approximately 12 months after Initial Operational Capability (IOC) to verify that the delivered capability met the project's performance and cost goals. Twelve months is a guideline with the intent that the asset is fielded and that actual performance and cost to operate information is available. The results of the PIR will establish a baseline for performance measurement on each asset for all future annual OAs.

An LRR should be accomplished no earlier than six months—and no later than one month—prior to deployment of the first full rate production system in accordance with Coast Guard Logistics Readiness Review (LRR), COMDTINST 4081.3 (series). A complete LRR may be required or an update of status from the assessment of logistics readiness previously accomplished in preparation for ADE-3 may suffice.

2. Produce/Deploy Phase Activities

Project Management Activities
Execute the production contract(s)
Ensure the delivered product meets operational requirements and meets cost and schedule baselines in APB
Prepare the PTP for ADE-4
Assist and support the development of the sustainment RP
Submit system accreditation documentation to the Designated Approving Authority via the System Certifying Authority for Authority to Operate decision (IT only)
Conduct an annual self assessment of the Information Security controls in accordance with NIST 800-53 (IT only)
Conduct a documented exercise of the system Contingency Plan (IT only)
Update ILSP (as needed)
Support PIR

Sponsors Representative's Activities

Update the requirements for sustainment resources, both money and personnel
Update the sustainment RP
Conduct PIR

SELC Activities

Verify and validate production configuration
Manage product configuration in accordance with the Product Baseline
Conduct/update Physical Configuration Audit (PCA), as needed
Revalidate Environmental Impact Assessment and update documentation as necessary
Support PIR

Logistics Management Activities

Establish interim logistics support (if required)
Evaluate the readiness level for all logistic elements to include support materiel, facilities, personnel, and training facilities
Monitor continued availability of materiel and manufacturing sources
Package and distribute all technical data to each unit and logistic support organization
Prepare for the hand-off of the operational system
Complete LRR

Human Systems Integration Activities

With Commandant (FORCECOM), develop Performance Support & Training Plan for design, development and execution of sustainment solutions
Validate manpower, PS&T, and habitability requirements meet system needs to operate, maintain, support and instruct the system
Review and recommend engineering changes for HSI issues
Provide usability results and feedback
Complete Manpower Requirements Analysis (MRA)

T&E Activities

Conduct trials and acceptance tests upon delivery of each asset
Conduct Follow-on OT&E (as necessary)

Enterprise Architecture Activities (if applicable)
<p>For IT projects only, refer to Circular No. A-11 Preparation, Submission, And Execution of the Budget (OMB Circular No. A-11), Part 7. OMB updates this guidance annually. Refer to OMB's website at: http://www.whitehouse.gov/omb/circulars_all_current_year_all_toc/</p>
<p>Conform to established DHS EAB strategic planning and IT guidance provided in the DHS Enterprise Architecture Board (EAB) Governance Process Guide (series). Refer to DHS's website at: http://dhsconnect.dhs.gov/org/comp/mgmt/cio/oat/Documents/EAPMO/HLS%20EA%202010/governance.htm</p>

3. Produce/Deploy Phase Significant Accomplishments

Significant Accomplishments
Delivered production assets in useful segments of capability
Completed LRR , findings outbrief and report
Achieved IOC (if not achieved in the Obtain Phase)
Executed maintenance and support plans
Completed PIR
Achieved FOC
Satisfied asset capitalization requirements for delivered assets
Complete PTP
Complete MRA
ADE-4 Project Transition Exit Criteria Satisfied

4. Produce/Deploy Phase Documentation

Documentation required to be developed and updated during this phase are presented in **Table 7 Produce/Deploy Phase Documentation**.

Table 7 Produce/Deploy Phase Documentation

Document	Task	Preparation	Approval
Post Implementation Review	Prepare	Sponsor's Rep.	Sponsor
Project Transition Plan	Prepare	PM	CG-93
Manpower Requirements Analysis	Prepare	CG-1B3	CG-1
Integrated Logistics Support Plan	Update (As Req)	PM	DCMS
Project Responsibility Transfer Letter	Prepare	CG-924	

5. ADE-4 Review and Expected Outcomes

The Coast Guard unique ADE-4 (Project Transition Review) will be accomplished to coincide with the last annual Coast Guard project review.

CG ARB ADE-4 Project Transition Review

PM and Support PgM brief the Project Transition Plan (PTP) and ILSP

6. Support Phase Objectives

The objectives of the Support Phase are the effective and efficient operation and support of the new asset to perform the applicable operational mission(s), over its total life cycle.

The Sponsor will continue to examine asset or system performance against assigned goals within the context of overall Coast Guard capability needs. Operational Analysis (OAs) will be conducted annually to determine the asset/system mission effectiveness, the optimal level of support, or end of useful life, if the asset is no longer needed. When the asset is no longer needed by the operating program, it is removed from the operational inventory and disposed of in accordance with applicable guidance.

OAs (as described and required in the DHS Office of the Chief Information Officer (OCIO) Enterprise Business Management Office (EBMO) Operational Analysis Guidance) is the assessment tool that will be used to measure the performance and cost of assets or systems against the baseline established in the PIR. An OA should demonstrate a thorough examination of the need for the asset or system, the performance being achieved by the asset or system, the advisability of continuing the asset or system, and alternative methods of achieving the same asset or system results. As such, OA may indicate that a current asset is not meeting the intended needs of the Coast Guard and therefore needs to be redesigned, modified, or replaced.

The DHS OCIO OMB document repository website where the latest information on OA Guidance is:

<http://dhsconnect.dhs.gov/org/comp/mgmt/cio/ebmo/Documents/Forms/AllItems.aspx>

Sponsors are required to perform the OA on an annual basis for all Level 1, 2, and 3 IT acquisitions and Level 1 and 2 non-IT acquisitions. Results of OAs for all IT projects are reported annually to DHS via completion of the Exhibit 300. All OAs (for IT and Non-IT Projects) should be provided to Commandant (CG-DCO-81) for consideration toward future Mission Analyses.

7. Support Phase Activities

Project Management Activities

The PTP is executed and management responsibilities are transferred to the applicable Operations and Support PgMs

The acquisition project continues to manage the resolution of warranty claims until the end of the warranty period

Operating Expense (OE) funding for operations and maintenance is updated

Contract closeout is accomplished by the contracting activity

Sponsor Activities
Conduct annual OA
Systems Engineering Activities
The Platform/Facility Manager implements the Configuration Management program for sustainment
When the functional baseline is being assessed for changes, the CCB chair will be Commandant (CG-7); otherwise, when the product baseline is being assessed, the CCB chair will be the Platform Product Line Manager
Logistics Activities
Validate manpower and training requirements meet system needs to operate, maintain, support, and instruct the system
The Product Line Manager implements the planned Integrated Logistics Support (ILS) strategies and planning; maintains and improves the processes contained in the ILSP; implements Diminishing Manufacturing Sources and Materiel Shortages management; and applies and replenishes the ILS resources that have been acquired to support the new system in sustained operation
Human Systems Integration Activities
Evaluate PS&T concept effectiveness and efficiency
Validate manpower, training, and habitability requirements meet system needs to operate, maintain, support and instruct the system
Review and recommend engineering changes for HSI issues
Collect human performance and safety lessons learned
Provide usability results and feedback for incorporation in annual OAs and other analysis as applicable

8. Support Phase Significant Accomplishments

Significant Accomplishments
Provided sustained support of operational system
Conducted periodic review to validate manpower and training requirements meet system needs to operate, maintain, support, and instruct the system
Conducted annual OAs on fielded system

9. Support Phase Documentation

Documentation required to be developed and updated during this phase are presented in **Table 8 Support Phase Documentation**.

Table 8 Support Phase Documentation

Document	Task	Preparation	Review
Operational Analysis	Annual	Sponsor	Coast Guard (DHS reviews IT OAs via the Exhibit 300)

10. Asset or System Removal from Service and Disposal

After transition, the Sponsor will assess utility and serviceability as part of the annual OA process. Based on the results of the OA or based upon a previously approved retirement schedule, assets or systems will be declared at end of useful service life and removed from service. General disposal instructions are provided in the U.S. Coast Guard Personal Property Management Manual, COMDTINST M4500.5 (series). Special disposal requirements must be followed in the case of environmental hazards, small arms and weapons, or export restricted and sensitive security assets including cryptographic equipment.

G. Acquisition Life Cycle Planning Summary

Figure 9 Acquisition Life Cycle Planning Summary provides a graphic representation of the major planning and documentation required during the Acquisition Life Cycle. This graphic is not all inclusive – there are many more documents required for Major System Acquisition projects; however, it is important to call attention to planning and the associated documentation as the primary focus before ADE-2A/2B. PMs are encouraged to use assigned staff, IPTs and Acquisition Support organizations to the maximum extent to integrate these multiple, parallel planning efforts into a cohesive and well organized project. This comprehensive planning is a foundation for success for both the government and contractors during execution of the Obtain Phase and later P/D and Support Phase.

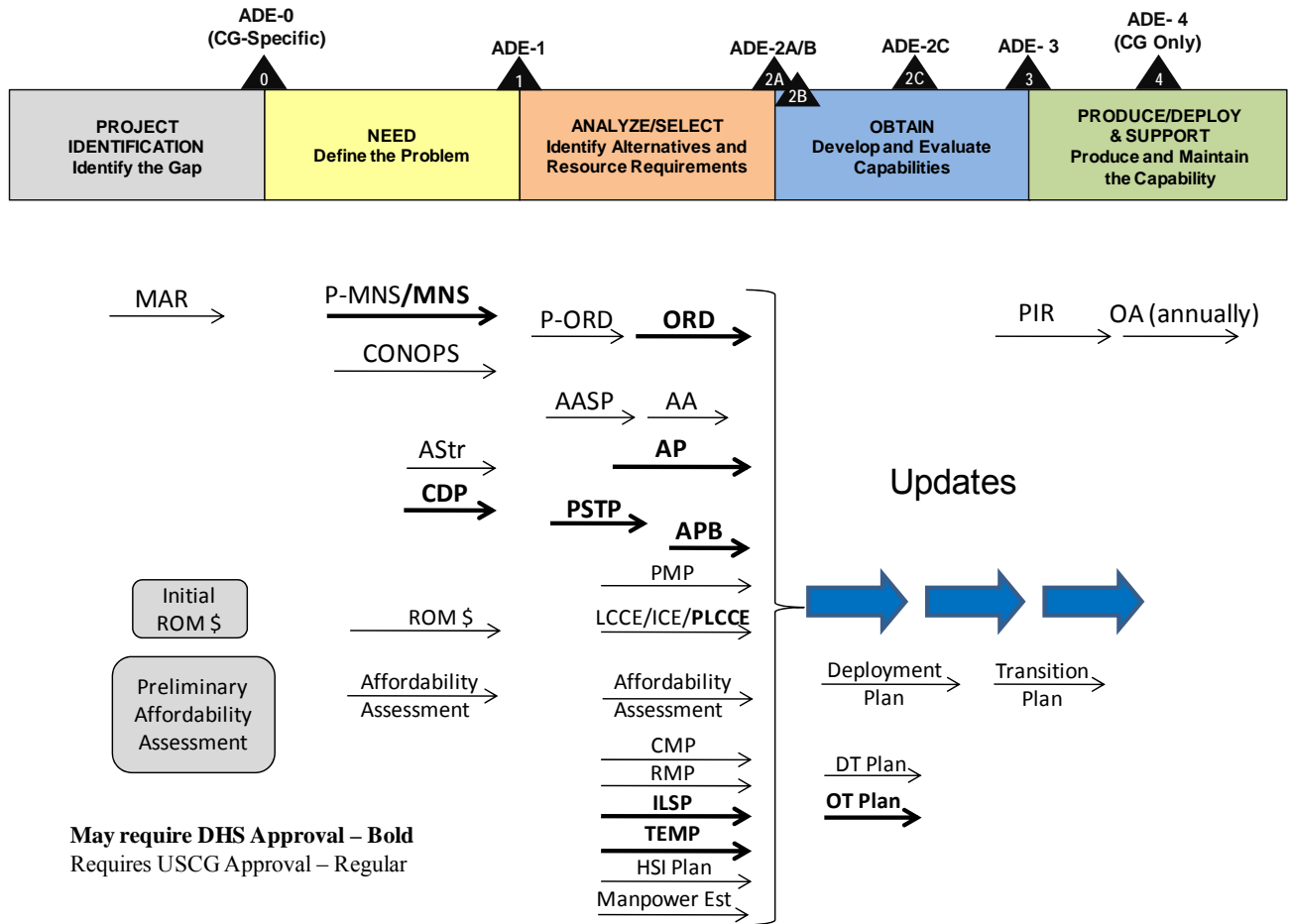


Figure 9 Acquisition Life Cycle Planning Summary

CHAPTER 3: SYSTEMS ENGINEERING LIFE CYCLE**A. Introduction**

Systems engineering is an interdisciplinary engineering management process that evolves and verifies an integrated, balanced set of system solutions as part of an asset, system or capability across an entire life cycle to satisfy Coast Guard needs. It involves systematic problem solving techniques to break down complex systems into manageable elements, find balanced solutions, then integrate and verify those system solutions into a capability. The process and products of systems engineering provides the PM with a solid technical foundation that effectively unifies, integrates, and focuses the efforts of all stakeholders – users, operators, logisticians, developers, acquirers, testers, trainers, and maintainers. It develops a relevant technical knowledge base that is matured, maintained, and transferred in a disciplined manner for the entire life cycle of the deployed capability or system.

B. Systems Engineering Life Cycle Framework

The SELC is a systems engineering framework for enabling efficient and effective delivery of capability to users, and is one of the key processes used for managing Coast Guard acquisition programs and their related projects. The SELC guides the definition, execution, and management of an interdisciplinary set of tasks required to plan, define, design, develop, implement, operate, and dispose of systems.

Knowledge and products from the SELC support the acquisition process and the individual acquisition decision events or milestones.

The use of SELC for Coast Guard projects is mandated by the DHS Directive 102-01 and is applicable to all Capital Assets as well as Enterprise Services projects whose purpose is to deliver a capability. This includes Non-IT and IT projects. The process for Enterprise Services is tailored and much abbreviated from that required for Capital Assets.

DHS Instruction/Guidebook 102-01-001 Appendix B provides a SELC Guide to standardize the system life cycle process across DHS Components and is designed to ensure that appropriate activities are planned and implemented in each stage of the life cycle to increase the project's success. The stages and associated acquisition phases are shown in **Figure 10 Major System Acquisition Life Cycle with SELC Process**.

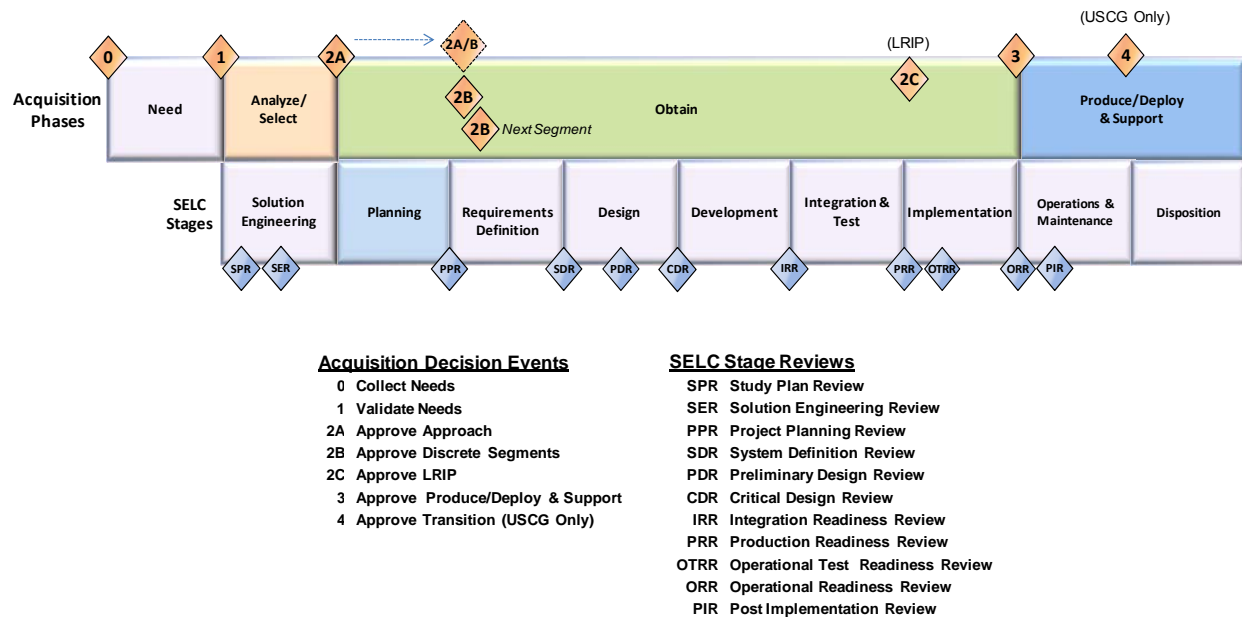


Figure 10 Major System Acquisition Life Cycle with SELC Process

The SELC provides flexibility by supporting tailoring based on the unique characteristics of a project (e.g., size, scope, complexity, and risk) documented in the Project's SELC Tailoring Plan (PSTP). PMs are responsible for tailoring the SELC process for the project's specific characteristics as appropriate and submitting this plan for approval at ADE-2A. SELC Stage Reviews (e.g., System Definition Review (SDR), CDR, etc.) are used to inform Coast Guard and Department oversight structure on the progress toward successful capability design, development and production. Each stage has a defined set of activities that represents a logical unit of work. Each stage has associated artifacts to record the results of the activities performed. The latest SELC document templates may be obtained from the SELC Template Library found at the DHS Enterprise Process Assets Library (EPAL): <http://mgmt-ocio-sp.dhs.gov/epal/SELC/Home.aspx> (if prompted, select your CAC email from the drop down list and provide your CAC PIN – this may occur more than once upon website entry).

The SELC represents the systems engineering framework for the acquisition management process. It is important to note that artifacts are simply the final output of a knowledge process, and that evidence of sufficient knowledge is more the focus of oversight than format and length of documents. Projects are encouraged to economize documentation to best represent their knowledge gained from their processes. The objective of tailoring is to effectively apply the SELC framework to a specific acquisition project that balances the need for artifacts and reviews with programmatic and technical risks. Tailoring of the SELC framework can take several forms and may include the following:

- Combining SELC stages and/or reviews (i.e., SER and PPR results brief combined with ADE-2A/2B EOC pre-brief);
- Combining SELC artifacts, stages, reviews;
- Scaling the size and content of SELC artifacts;

- Incorporating additional Systems Engineering (SE) processes, activities and other artifacts not required by the SELC guidance but needed for a specific project/discrete segment/stage;
- Including any use of technology demonstrators, with objectives and how they will support the project;
- Substituting products of similar content for SELC artifacts; and
- Deleting SELC artifacts.

NOTE: Some artifacts identified in the SELC guidance are required by DHS and other governing authorities' policies and authoritative guidance require certain SELC artifacts that cannot be deleted by the PSTP. Any tailoring of activities and artifacts should be coordinated with DHS and other governing authorities.

C. System Engineering Life Cycle Reviews

SELC reviews are conducted at the end of each stage to ensure all exit criteria for the stage have been satisfactorily addressed. These reviews are an approval process authorizing the project to continue into the next SELC stage as identified in the PSTP. **Figure 11 SELC Stages** provides a brief explanation of each stage. **Figure 12 SELC Review Approval Authorities** identifies the Coast Guard Approval Authority for each SELC Stage.

NOTE: If combining SELC reviews as part of tailoring, the approval authority will be the most senior entity listed in **Figure 12 SELC Review Approval Authorities**.

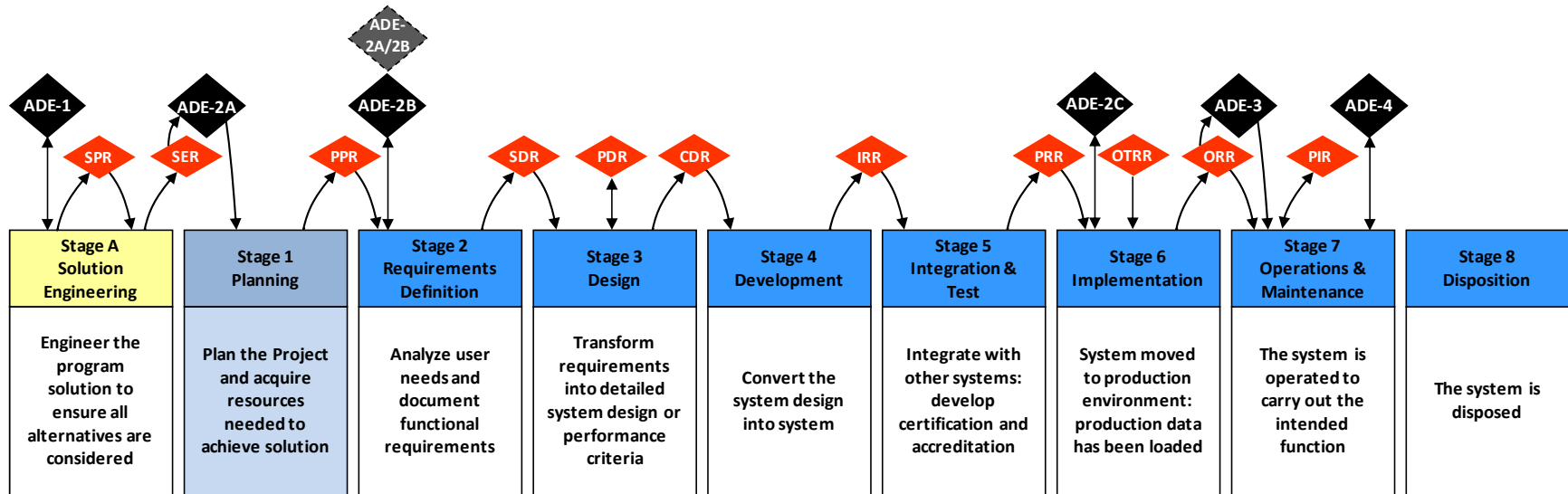


Figure 11 SELC Stages

SELC Review	▲ ADE 1	SPR	SER	▲ ADE 2A	PPR	▲ ADE 2B	SDR	PDR	CDR	IRR	PRR	▲ ADE 2C	OTRR	ORR	▲ ADE 3	PIR	▲ ADE 4
IT	ADA	CG CIO	CG CIO	ADA	CG CIO	ADA	CG CIO	CG CIO	CG CIO	CG CIO	CG CIO	ADA	CG CIO	CG CIO	ADA	CG CIO & Sponsor ¹	ADA
Non-IT	ADA	CG-9	CG-9 (EOC)	ADA	CG-93 PgM	ADA	CG-93 PgM	CG-93 PgM	CG-9	CG-93 PgM	CG-9 (EOC)	ADA	CG-926	CG-9 (EOC)	ADA	Sponsor	ADA

¹ Co-Chairs

Figure 12 SELC Review Approval Authorities

Figure 13 SELC Stage Activities summarizes the purpose of each stage review. SELC reviews are led by the acquisition PM/PgMs and include the Technical Authorities, Sponsor and participation from DHS level organizations (e.g., PARM, CIO-EBMO, DOT&E, DHS IT Portfolio Managers). The PM/PgM is responsible for arranging, coordinating, leading the SELC Reviews. DHS PARM (USCG Liaison and Systems Engineering Liaison) should be invited to all SELC reviews, however attendance by DHS will be as resources and schedules allow. The PM, TAs and Operational Authority (Sponsor) will rely on the appropriate experts (e.g., EA, testing, security, infrastructure, budget, operators) to evaluate the completion of activities and compliance with exit criteria. The review can start after all the entry criteria are met per the project's SELC Tailoring Plan (PSTP). Once all exit criteria have been satisfactorily met and the project is ready to proceed to the next state, the Approval Authority will sign a SELC Review Completion Letter signifying satisfactory completion of exit criteria and permission to begin the next SELC stage. The lead TAs/Sponsor (or their representatives) are required to endorse the SELC stage completion letter. In the specialized case of non-IT projects obtaining IT systems (e.g., vehicle projects that include communications gear) the TAs must include the Coast Guard CIO in the review process. Within 30 days of completing the SELC Reviews, a scanned electronic copy of the signed SELC Review Completion Letter, along with any updates to the PSTP or PMP, must be posted to nPRS by the project office.

SELC Review Exit Criteria: Each SELC review contains a minimal set of exit criteria that must be satisfied for a project to proceed. Exit criteria are presented in question format and categorized by function (e.g., project management, enterprise architecture, etc.) to provide content-centered guidance rather than merely a checklist of documents to be completed. Exit criteria should be tailored for the specific approach and methodology of the project (see tailoring guidance shown in previous section). The CAE, PM, TAs, Operational Authority (Sponsor) may provide additional criteria based on the scope/risk of the project or results from previous stages. It is critical to understand that the determination of project readiness to proceed is made by satisfactory compliance with the content of the exit criteria, *not* simply by meeting the entry criteria in terms of documents produced. PMs should review the exit criteria at the start of each SELC stage and plan the stage activities accordingly.

SELC Stage Approval Process: The results of the System Engineering Review (SER), PPR, PRR, and ORR SELC review may be presented to the EOC at the same time as the CG ARB pre-brief for ADE-2A, ADE-2B, ADE-2C, and ADE-3 respectively, since they coincide.

Endorsement of the SELC Review Completion Letter by the applicable Approving Authority signifies approval. All SELC reviews require a completion letter. For example, although the Preliminary Design Review (PDR) is not a Stage Review nor does it support an ADE - a completion letter is still required to document the completion of the PDR. This letter and enclosures will be routed to the Approval Authority for endorsement.

Lead Technical and Operational Authorities (or their representatives present at the SELC Review) must sign the completion letter to show their endorsement that the project has satisfactorily completed the exit criteria and is ready to move on to the next stage. Ideally, the completion letter should be ready for signature at the end of the SELC review.

SELC Review		Stage Activity	
ADE 1	SPR	Review the initial study plan assumptions and the scope and method of analysis.	
	SER	Review the results of the AoA/AA and recommended solution(s); evaluate the activities /documents of the Solution Engineering stage.	
ADE 2A	PPR ¹	Ensures that the project, resources, activities, schedules and tools are allocated and baselined.	
ADE 2A/B	ADE 2B	SDR	Ensures that the functional and interface requirements are identified, measurable, testable, and traceable to a source.
		PDR	Assesses the system's conceptual design to ensure that the planned technical approach will meet the requirements.
	CDR	Assesses/validates that the design is complete and accurate in its specification and can produce the results defined in the baseline requirements.	
	IRR	Assesses system readiness to begin system level integration and testing based on the results of subsystem or continuous integration tests. Assess the test infrastructure and planning adequacy	
	PRR	Assesses how well the system developed satisfies the needs. Determines if the design is ready for Low rate production, the readiness of the producer manufacturing processes and that the production capability forms a satisfactory basis for proceeding into production.	
ADE 2C	OIRR	Assesses the project's readiness to enter Operational Test and Evaluation.	
ADE 3	ORR	Assesses whether the system, as implemented, meets mission need and is ready to be moved into full rate production and users, operators, and maintenance personnel are adequately equipped/trained.	
ADE 4	PIR	Evaluate the actual results compared to predictions in terms of cost, schedule, performance and mission outcomes; to determine the causes of major differences between planned and end results and to help improve future acquisition project management practices.	

¹ The SER may be combined with the PPR for a combined ADE-2A/2B

Figure 13 SELC Stage Activities

D. Project SELC Tailoring Plan

The PSTP documents the system development approach in terms of the proposed SELC stages, activities, artifacts, and exit criteria. When developing the PSTP, the PM is encouraged to tailor the stages (e.g., combine, delete, etc.), activities, artifacts, and entrance/exit criteria that best fit the project's complexity. The MSAM Handbook and DHS Instruction/Guidebook 102-01-001 Appendix B provide the template and additional instructions for the PSTP.

NOTE: The CDP functions as the PSTP in the Analyze/Select Phase until the PSTP is developed and approved. The PSTP's function is to document how the project is tailored with respect to the generic SELC model; it is not the equivalent of a project- focused systems engineering plan.

The PSTP is reviewed and endorsed by the TAs (typically Commandant (CG-6) for IT, Commandant (CG-4) for Non-IT, and Commandant (CG-1)) and Lead Operational Authority. This endorsement represents that the special needs of the Component have been addressed, and that the overall approach is technically sound and within the abilities of the Component to execute. This endorsement signifies that internal consensus has been achieved within the Component regarding the process and documents to be developed for each project.

Once cleared by the Technical and Operational Authorities, the PSTP is then signed by Commandant (CG-93) as the Coast Guard approval authority. This signature represents that the Component supports the acquisition and SELC tailoring, and is able to defend the tailoring justifications in terms of overall program/project risk. The PSTP is normally submitted by the PM (through Commandant (CG-924)) for Department approval through the DHS PARM and the DHS CIO prior to ADE-2A.

E. Research, Development, Test and Evaluation Program

The Coast Guard Research, Development, Test and Evaluation (RDT&E) Program is a resource for applying scientific knowledge and capabilities providing innovative and adaptive research, development, testing, evaluation, analysis, and technology solutions for the maritime environment to enhance current and future asset acquisition and mission execution. The RDT&E Program, Commandant (CG-926) can assist PMs and PgMs with evaluating the feasibility and affordability of mission execution solutions and by providing operational and risk-management analysis at all stages of the acquisition process. Some of the primary functions available from Commandant (CG-926) include:

- Market Research
- Mission and Gap Analysis
- Business Case Development
- User Wants & Needs Generation
- Requirements and Capability Analysis
- Cost Benefit Analysis (CBA)
- Modeling & Simulation
- Technology Demonstrations
- Field Testing

- Trade-off Studies
- Human Factors Analysis
- Alternatives Analysis
- Technical Readiness Assessment
- Risk Assessment
- LCCE (from early Rough Order Magnitude to Project LCCE)

F. Modeling and Simulation

A model is a representation of a system, entity, phenomenon, or process that can be used in an experimental environment to gain a better understanding of the system that it is designed to represent. Models can be physical (e.g., scale model aircraft for wind tunnel testing), logical (process or flow charts) or mathematical (e.g., a mathematical model of a specific system created to conduct computer simulations).

A Simulation is an exercise of a model (or experiment on the model) over time. It is used to learn specific characteristics about the system that has been built or being built without having to go through expensive testing on the real system or having to wait for real systems to test. Simulations can also be used with real-world systems to replicate a specific environment of operations. One advantage of simulations over real-life is that simulations can be repeated, consistently, any number of times to provide a set of tests to a model or real world system in order to better inform analysis and decision making and potentially lead to cost reductions.

Coast Guard Modeling and Simulation (M&S) Management, COMDTINST 5200.38 (series), provides vision, policy, procedures, and standards for the administration and management of M&S. Major objectives for the use of models and simulation in acquisition are to reduce time, resources, and risk associated with the entire acquisition process, and to increase the quality, military worth, and supportability of fielded systems. PMs and Sponsors are to identify and fund necessary M&S resources in the early phases of each project to support cost effective analysis of their respective acquisition activities. To help ensure that M&S capability can be more easily accessed and used for acquisitions, Commandant (CG-926) has developed and sustains significant M&S capability consolidated at the M&S Center of Expertise located at the RDC which is available to Project Managers and Sponsors. M&S capability is uniquely relevant to the maritime operating environment and threats faced by the Coast Guard operators. Commandant (CG-926) employs and maintains campaign models, engagement models, and specialty models such as physics-based sensor models – as needed to examine Coast Guard platforms/systems doing Coast Guard missions. Commandant (CG-926) has the capability and analysts that can develop and implement new M&S tools for planning, acquisition trade studies, and project execution.

Documentation: The role of M&S in the engineering process should be documented in the PSTP. Of particular importance, Verification, Validation and Accreditation (VV&A) must be accomplished to ensure that models and simulations are effectively applied in support of each project. VV&A of M&S, COMDTINST 5200.40 (series) mandates that any M&S tool used in supporting the development of major acquisitions must undergo accreditation approval by the appropriate Accreditation Authority prior to its use.

G. Technology Demonstrators

Technology Demonstrators can be used throughout the requirements and acquisition life cycles to increase understanding of mission capabilities, limitations, and trade space and to reduce risks. Sponsor Representatives should work with the RDT&E Program, Commandant (CG-926) or other offices as appropriate to plan technology demonstrations to aid in requirements and CONOPS development. The RDT&E Program will assist in analysis of available technology and competitive evaluation of demonstrators.

PMs are encouraged to utilize technology demonstrators as means of reducing development and deployment risk (e.g., for refining requirements or increasing the maturity of technologies) or generating actual data for use in project estimates (e.g. cost estimates), however special management and governance procedures are required. A Technology Demonstrator is defined as a working model (physical, electronic, digital, analytical, etc) or a process-related system that may be used in either a laboratory, simulated, testing, controlled operationally relevant environment, or operational environment, depending on the type and purpose for its use. Types of Technology Demonstrators are as follows:

Type 0 Technology Demonstrators are used as part of developing the MNS to define needs and requirements and assess the feasibility of meeting DHS needs. Typically these are Science and Technology (S&T) or Research and Development (R&D) efforts that can mature into project capabilities.

Type 1 Technology Demonstrators are used as part of a project in support of the Analyze/Select Phase for the purpose of evaluating technology or process maturity, refining requirements (including CONOPS), or producing data in support of alternatives analysis. Type 1 demonstrations are conducted in simulated or controlled operationally relevant environments. The scope of the technology demonstrator must be within the scope of the project's MNS. The scope and plan for Type 1 technology demonstrators is part of the CDP approval at ADE-1.

Type 2 Technology Demonstrators are used as part of a project to refine or verify requirements and/or designs throughout the Obtain phase. Type 2 demonstrations are typically conducted in simulated or laboratory (non-operational) environments, but may be conducted in controlled operationally relevant environments to obtain operational/user feedback. Type 2 demonstrations may be part of a project's Developmental Test (DT) effort. The scope of a Type 2 Demonstrator must be within the scope of the MNS and performance parameter objectives in the ORD. If part of a DT effort, the Type 2 Demonstrator objectives must be documented in the TEMP and DT Plans before evaluation.

Type 3 Technology Demonstrators are conducted to support full-rate production decisions for the P/D and Support phase. Type 3 demonstrators are conducted in the intended operational environment using production-representative articles and the results of testing are often part of Operational Test (OT) Reports. When used as part of operational testing, the objectives and plans for Type 3 demonstrators must be included in the TEMP. Demonstrations conducted outside the purview of formal operational test require objectives and plans to be developed and approved prior to conduct of the evaluation. Type 3 Demonstrators require a low-rate/abbreviated production decision (ADE-2C or equivalent) before usage if the demonstrators are to remain in operations past the evaluation period.

Rapid Technology Demonstrator: There may be conditions where emergent threats to National Security or an emergency response necessitate the use of a Rapid Technology Demonstrator in the operational environment. The use of this technique must be approved by the Component acquisition chain of command, be part of an existing program of record, and be approved by the DHS USM or S2 before the start of development or procurement. Factors to be considered for the approval of Rapid Technology Demonstrators include safety, relevant test data showing the system performance, and the extent of supportability planning and provisioning for the expected duration of usage. The project office should also include planning to obtain rapid and continuous feedback from operators on system performance to enable quick resolution of problems and achieve the level of performance desired in operational use.

Documentation: The role of Technology Demonstrations should be documented in the CDP and later in the PSTP. Sponsors, in coordination with the PgM (or PM if assigned), should document plans for the use of Type 0 and Type 1 Demonstrators in the CDP. During the Analyze/Select Phase, the PM will then include any Type 0 and Type 1 Technology Demonstrators that will be continued to be used in later phases, as well Type 2 and Type 3 Technology Demonstrators, as applicable, in the PSTP, noting objectives of Technology Demonstrations and how they will support the project. Note that Emergent Technology Demonstrators not previously captured in the CDP or PSTP should be briefed to DHS DOT&E prior to implementation.

CHAPTER 4: REQUIREMENTS GENERATION

NOTE: All project management planning documents must be staffed through varying levels of coordination and approval. It is important to plan ahead for informal staffing, coordination and formal concurrent clearance to avoid administrative delays in reviews and decision events. **Refer to Chapter 8 for details on the concurrent clearance process and approvals, and the MSAM Handbook for templates outlining formats, content and approvals.** Note that the Sponsor needs to engage Commandant (CG-924) and DHS on formal staffing for the MNS and ORD.

A. Introduction

The ability for the Coast Guard to continue to effectively execute its missions in the future is dependent upon having and maintaining a healthy requirements life cycle system. **Figure 14 Requirements Life Cycle** is a depiction of the requirements life cycle system as it applies to Major Systems Acquisitions. Each element of the requirements life cycle plays an important role – from identifying mission gaps to developing requirements to fielding new assets or systems to getting feedback on the fielded assets' ability to continue to perform their missions.

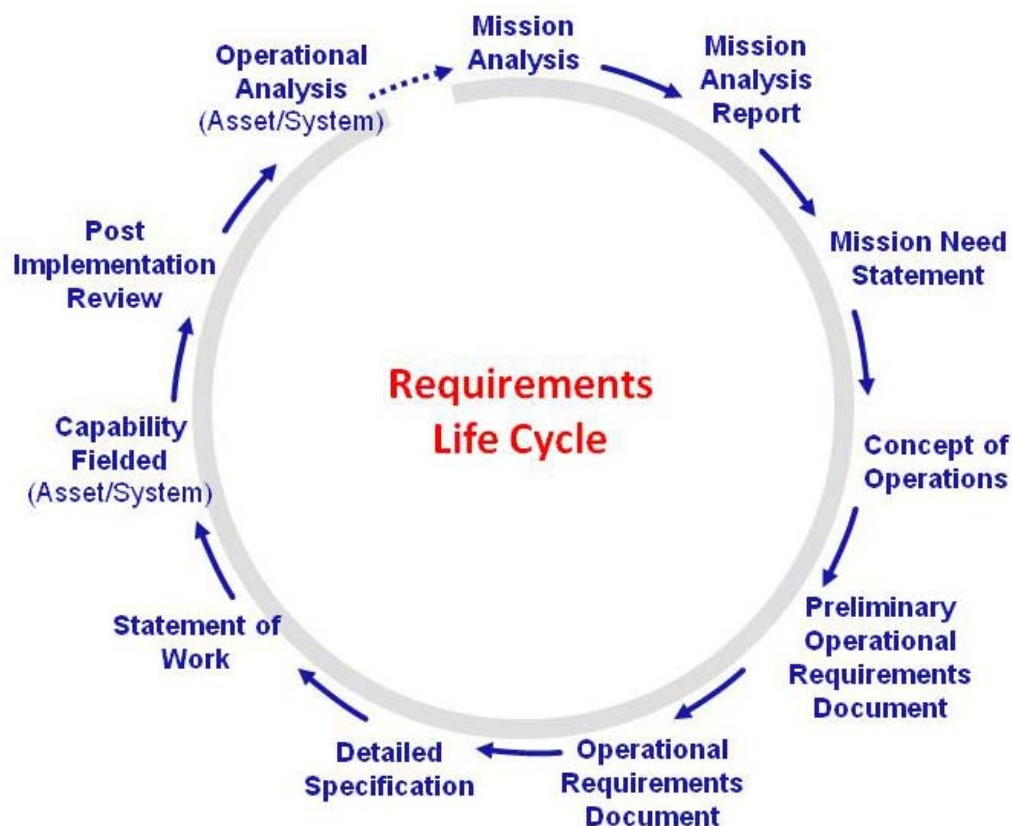


Figure 14 Requirements Life Cycle

Mission Analysis (MA) is the periodic assessment of the Coast Guard's future mission operations. It identifies deficiencies, or capability gaps, in the Coast Guard's ability to execute its missions. For example, the Coast Guard may want to have an 80% success rate in stopping go-fast boats. If the MA shows that our success rate is only 65%, then a capability gap exists. The outcomes of annual OA, conducted for each major asset, will be included as supporting information for the MA.

Mission Analysis Report (MAR) documents the results of the MA. It documents materiel and non-materiel solutions that can be used to close the mission capability gaps identified in the MA. If the identified mission gap cannot be closed by any other means (i.e., force mix, training, policy, etc.) then the MAR will document the need for a materiel solution. A materiel solution means that a new, upgraded or additional physical asset (i.e., cutter, aircraft) must be added to the Coast Guard's inventory in order to fill the capability gap. Prospective materiel solutions should be presented as a range of potential solutions.

Mission Need Statement (MNS) is the formal description of the strategic need for an acquisition and is a crucial part of the acquisition process. It is a high level statement of the capability required to close the gap. It is one of the earliest documents to formalize the acquisition, and links the gap in mission capability first documented in the MAR to the particular acquisition that will fill the gap. An approved MNS is required at ADE-1 and marks the formal transition out of the Need Phase.

NOTE: DHS Instruction/Guidebook 102-01-001 calls for development of a Component P-MNS, to support identification of potential multi-Component or multi-Department mission need. A P-MNS is also an element of information considered in DHS Program Resource Board decisions on funding (e.g., to insert a wedge of funding for a new start in the FYHSP). In the Coast Guard, the draft MNS shall – upon signature by the Assistant Commandant for Capabilities (CG-7) – be considered a P-MNS, and submitted to DHS via Commandant (CG-924).

CONOPS describes a proposed asset or system in terms of the user needs it will fulfill, its relationship to existing assets, systems or procedures, and the ways it will be used. The CONOPS is used to obtain consensus on the operational concept of a proposed system among the mission managers, Sponsor, acquirer, developer, support, and other user entities within the Coast Guard on the operational concept of a proposed system.

P-ORD is the initial statement of operational performance related to requirements and incorporates the vision set out in the CONOPS assigning desired operational performance expectations. The P-ORD is derived from the MNS, CONOPS, and early Sponsor analysis. The P-ORD expresses the requirements statement and priorities needed to guide further analysis for the asset or system that is to be acquired. The P-ORD is a required document for every major systems acquisition unless a waiver is approved by Commandant (CG-771), per Chapter 1, Paragraph A.3 of the Requirements Generation and Management Process (Pub 7-7).

ORD is the formal statement, developed by the Sponsor in collaboration with stakeholders, of the operational performance and related operational parameters for the proposed concept or system. It describes an operational system in terms of a range of acceptable and desirable standards of performance. As the consolidation of these performance measures in one document, as well as requirements for the support and maintenance of the system, the ORD

serves as the source document for a host of systems engineering activities, ongoing requirements analysis, and cost estimating to ensure the success of the project. Once approved, the ORD serves as a “contract” between the Sponsor and the PM. An approved ORD is required at ADE-2A/2B and revalidated for ADE-3 to support the full rate production and deployment decision by the ADA. Note that ORD requirements are driven primarily by mission needs, not affordability. However, achieving ORD requirements may require an incremental approach that recognizes technology maturity and affordability among the constraints.

Project-specific system specifications are developed by translating ORD requirements and other design drivers into functional and select physical requirements to a level of detail from which industry (contractors) can develop a reasonably priced proposal to develop (and often also to produce and deploy) a system design that can be presumed capable of meeting ORD requirements if the specification is fully satisfied. The SOW is a description of work tasks and related activities that are to be performed by the contractor in order to design, fabricate, integrate, test and create/produce a system design that complies with the system specifications. More information on SOW preparation can be found in DOD Handbook for Preparation of SOW, MIL-HDBK 245-D, April 1996.

Post Implementation Review (PIR) is used to establish a baseline of cost, performance, and operational outcomes for acquisitions that are transitioning to steady state. A PIR is typically conducted by the Sponsor, with assistance from the PM, on deployed projects to evaluate the actual results compared to predictions in terms of cost, schedule, performance, and mission outcomes; to determine the causes of major differences between planned and end results; and to help improve project management practices.

Operational Analysis (OA) is used to assess an asset/system’s ability to continue to effectively perform its missions in a cost effective manner. The analysis is required by OMB and DHS and is to be done by the Sponsor on an annual basis. The results of the OA provide an input into the MA. A PIR, conducted during the Produce/Deploy and Support phase, also provides a baseline for subsequent comparison during follow on OAs. By definition, OA is a method of examining the current performance of a steady-state operation (typically an asset or service in the Support Phase) and measuring that performance against an established set of cost, schedule, and performance parameters. The analysis should demonstrate a thorough examination of the need for the asset or service, the performance being achieved by the asset or service, the advisability of continuing the asset or service, and alternative methods of achieving the same results.

Sponsors are required to perform the OA on an annual basis for all Level 1, 2, and 3 IT acquisitions and Level 1 and 2 non-IT acquisitions. Results of OAs for all IT projects are reported annually to DHS via completion of the Exhibit 300. All OAs (for IT and Non-IT Projects) should be provided to Commandant (CG-DCO-81) for consideration toward future Mission Analyses.

The effectiveness of each element within the requirements life cycle is dependent on its predecessor. A sound and defensible MNS is dependent on the completeness and coherency of the MAR; a well written ORD needs a well thought out and complete CONOPS; the Specifications and SOW are dependent on a clear and well written ORD; and so forth. As

requirements become defined in more detail, they need to maintain clear traceability to their predecessor documents.

NOTE: Commandant (CG-7) has developed a Requirements Generation and Management Process (Pub 7-7) for use in developing MNS, CONOPS, P-ORD and ORD requirements documentation for Major Systems Acquisitions; contact Commandant (CG-771) for further information.

B. Mission Analysis

Purpose: MA is a continuous, iterative analysis of assigned mission responsibilities to identify gaps in current and projected Coast Guard mission capabilities. The purpose of MA is to assess the ability of the Coast Guard to successfully carry out specific missions in the future by analyzing current performance level in contrast to mission goals. Where a gap in capability exists or is projected to exist, a mission analysis should identify additional functional capability or process changes necessary to fill the deficiency. Commandant (CG-DCO-81) is the process owner for conducting MA.

Discussion: DHS and Coast Guard Strategic Goals and Coast Guard Missions are the starting points that are used to establish the Coast Guard sphere of responsibility for which the Coast Guard conducts ongoing mission analyses. DHS annually issues its IPG as part of the Capital Planning and Investment Control (CPIC) process (see Chapter 6) to provide a focused statement of DHS priorities given the current and projected view of world and national state of affairs. MA should also align with the DHS Strategic Plan.

The Homeland Security Act of 2002, in transferring the Coast Guard to the Department of Homeland Security, listed the following eleven missions: Search and Rescue; Marine Safety; Aids to Navigation; Ice Operations; Marine Environmental Protection; Living Marine Resources; Illegal Drug Interdiction; Undocumented Migrant Interdiction; Other Law Enforcement; Ports, Waterways, and Coastal Security; and Defense Readiness.

The Sponsor organization should develop and track performance metrics for legacy/existing systems through OAs to determine if the system (which includes the operators, the hardware/software, and the operational environment) is able to affordably conduct designated missions to the required levels of system performance. This information will feed the ongoing MA. Included in the Sponsor's assessment will be decisions regarding retirement/disposal of a system or asset.

The Coast Guard uses the framework of its Missions and DHS guidance as the standard to which it measures and assesses its capabilities to meet its missions. Concepts and scenarios are applied to give context to missions/tasks. Shortcomings between current capability and desired outcomes are identified as capability gaps (implying that tasks or missions cannot be accomplished with existing resources). The shift to a capability-based requirement system is important to meet the needs of the DHS Acquisition Review Process (ARP) in identifying, assessing, and prioritizing USCG/DHS capability needs.

When capability gaps are identified, the mission manager conducts an analysis to determine if gaps can be closed without having to initiate a materiel solution. This *non-materiel analysis* is an internal review of the Coast Guard's DOTMLPF+R/G/S. If changes can be made within the Coast Guard's current infrastructure to resolve capability gaps, it is the

preferred solution. A non-materiel solution is typically faster and less expensive.

Changes related to DOTMLPF+R/G/S may not eliminate all gaps in capabilities. Remaining capability gaps should be prioritized and presented at a Coast Guard Project Identification Review (ADE-0) through the MAR as candidates to proceed to a Coast Guard major systems acquisition if the ROM cost estimate exceeds DHS thresholds for Level 1 and 2 major acquisitions. A technology assessment is to be accomplished concurrent with the MA. Promising technologies are to be identified that may support the potential materiel solutions of the MAR.

At ADE-0, the results of the MA are to be presented (including the results of the DOTMLPF+R/G/S analysis). The mission program manager identifies and presents recommended project candidates (with the capability gaps they will close) and associated preliminary affordability assessment. Relevant technology assessments and any pertinent ongoing Research and Development / Science and Technology initiatives will also be presented. Upon successful completion of ADE-0, the ADA will authorize entry into the Need Phase and direct development of a MNS, initial Exhibit 300, a CONOPS, and a CDP.

The Project Identification Phase is used by the mission manager to perform ongoing MA to identify shortcomings in Coast Guard capabilities as shown in **Figure 15 MA Process**.

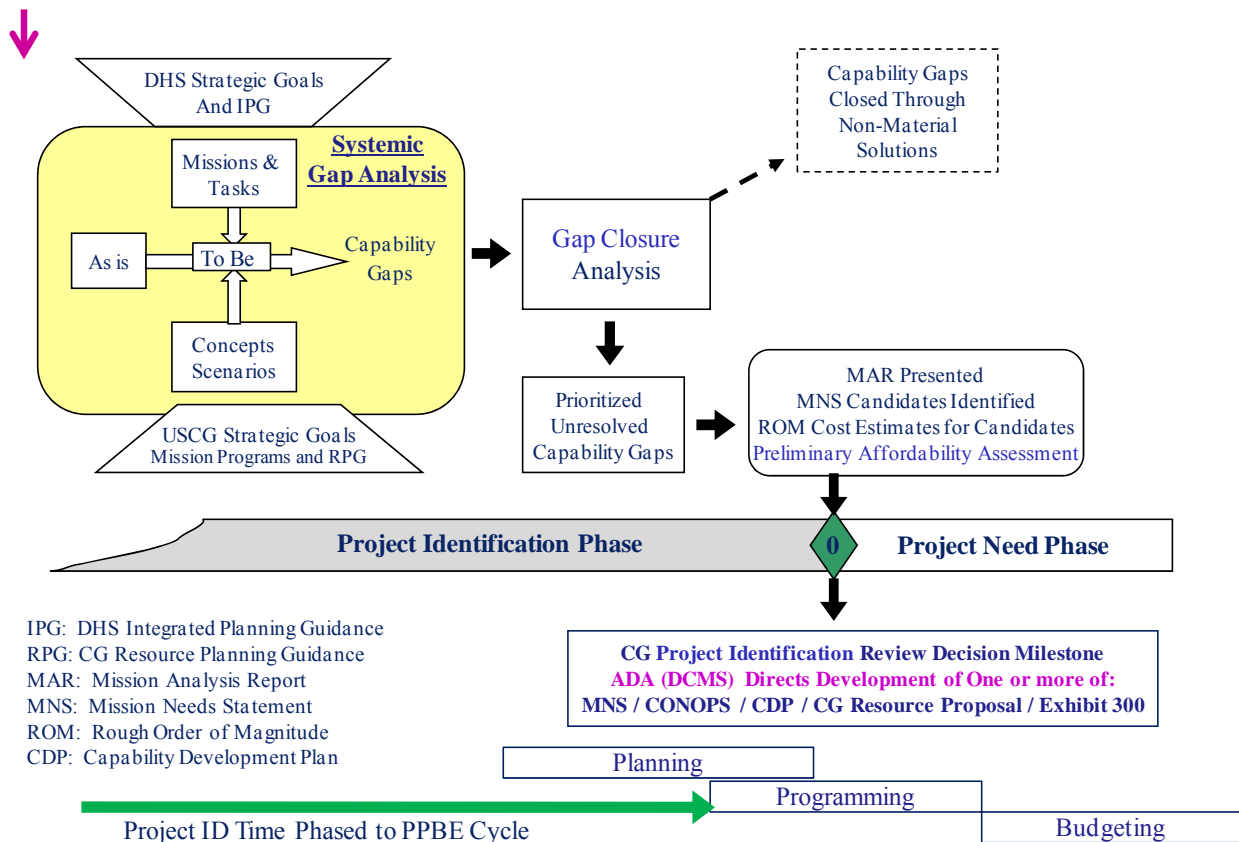


Figure 15 MA Process

Roles and Responsibilities

Commandant (DCO-81) and Sponsor Responsibilities
Commandant (DCO-81) is responsible for conducting the MA with support from Sponsors, Commandant (CG-5R/P), Commandant (FORCECOM), Technical Authorities, and Support Organizations
Brief DCMS at Project Identification Review (ADE-0)
Sponsor and Technical Authority Responsibilities
Support Commandants (DCO-81) and (CG-5R/P) in conducting Mission Analyses
Provide early ROM cost assessment on the potential materiel solutions
Commandant (CG-8) Responsibilities
Provide preliminary affordability assessment on the potential materiel solutions
Commandant (DCMS) Responsibilities
DCMS authorizes entry into the Need Phase
DCMS directs initiation of Resource Allocation Plan, Mission Need Statement, CONOPS, CDP and Exhibit 300

C. Mission Analysis Report

Purpose: The MAR documents the MA results and supports initial acquisition strategies.

Discussion: The MAR is a collection, cross-analysis, and documentation of numerous feeder studies and analyses that look across a number of different mission areas. The MAR is not intended to be an asset oriented analysis.

Format: The MAR is divided into four sections. Section 1 provides a mission description including a summary of the existing mission, a projection of the future mission and an analysis of mission performance (to include performance measures) and gaps. Section 2 encapsulates the deficiency in functional capability which will prevent the Coast Guard from adequately conducting mission(s) now or in the future. Section 3 provides a range of alternatives, while Section 4 provides justification and preliminary options for satisfying mission capability gaps. If necessary, the MAR should specifically document the need for a materiel solution. Specific guidance and a template for development of the MAR are contained in the MSAM Handbook.

MA is the responsibility of Commandant (DCO) operational program managers. The pertinent Commandant (DCO) program manager provides a brief to the Investment Board for initial concept approval and to identify resources (funding and personnel) needed for the analysis. MAR development may, depending on mission complexity, require detailed studies, analysis and extensive commitment of staff resources. The Office of Performance Management and Assessment, CG-DCO-81, will coordinate review and submission of the MAR for approval by Commandant (DCO). Commandant (DCMS) will review the MAR as part of the Project Identification Review (ADE-0) and authorize entry into the Need Phase.

D. Mission Need Statement

Purpose: The MNS is a high level synopsis of specific functional capabilities needed to accomplish DHS/USCG missions and objectives. It provides a strategic framework for acquisition planning and Coast Guard capability delivery and is a crucial part of the acquisition process. In the Coast Guard, it serves to formalize the acquisition, and links the gap in mission capability first documented in the MAR to the particular acquisition of a materiel solution that will fill the gap. If a non-materiel solution closes the capability gap, a MNS and follow-on acquisition project will not be required.

NOTE: DHS Instruction/Guidebook 102-01-001 calls for development of a Component Preliminary MNS (P-MNS), to support identification of potential multi-Component or multi-Department mission need. A P-MNS is also an element of information considered in DHS Program Resource Board decisions on funding (e.g., to insert a wedge of funding for a new start in the FYHSP). In the Coast Guard, the draft MNS shall – upon signature by the Assistant Commandant for Capabilities (CG-7) – be considered a P-MNS, and submitted to DHS via Commandant (CG-924).

NOTE: For Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) and IT, the MNS describes specific architecturally-based functional capabilities required to satisfy DHS and Coast Guard Enterprise Architecture (EA) requirements.

Discussion: Based on the capability gap derived from MA, the Sponsor will prepare the MNS and then circulate it for concurrent clearance. The MNS must align to DHS strategic direction and priorities and address several key elements including:

- Required mission in functional terms;
- Threats, threat assessment and environment (if applicable);
- Description of capabilities required for the mission and gaps in capabilities that drive a need for a materiel solution;
- Consideration of existing or planned systems (internal or external to DHS) that have been considered for use to fill the gap; and
- A compelling value proposition for filling the capability gap including impacts of not filling the gaps.

The MNS must be sufficiently detailed to justify an acquisition start. Approval of a MNS provides formal DHS executive level acknowledgment of a justified and supported need to resolve a mission gap with a materiel solution.

Roles and Responsibilities

Sponsor's Representative Responsibilities
Drafts the MNS
Sponsor Responsibilities
Submits the MNS

CAE Responsibilities

Provides Coast Guard approval for MNS

DHS ADA Responsibilities

Approves MNS at ADE-1 (or before)

Refer to Commandant (CG-7) Requirements Generation and Management Process (Pub 7-7) for more details on development of the MNS.

E. Concept of Operations

Purpose: The CONOPS describes the operational view of the proposed solution(s) from the user's perspective. A CONOPS is used to communicate high-level, conceptual, future business and mission operations to the project sponsors, end-users, planning and design teams, and other stakeholders. Specifically it provides the framework for the development of an operational capability. It permits stakeholders to assess solution alternatives in the context of "real-world" (scenario-based) operational environments. The CONOPS is both an analysis and a formal document that describes how an asset, system, or capability will be employed and supported. In the Coast Guard, the CONOPS development process serves to generate consensus on the operational and support concept of a proposed system.

Discussion: A well-developed CONOPS provides a useful foundation at the beginning of the project for later development of the asset or system and also serves as a useful reference document throughout the duration of the project. CONOPS development normally involves a multi-function team. By demanding user involvement, early analysis, and collaboration, the CONOPS process creates consensus among the mission managers, Sponsor, acquirer, developer, support, and other user entities within the Coast Guard, encourages organizational decision making, and sets the stage for writing solid requirements. CONOPS development should include careful consideration of a full range of factors that together are required to fulfill the mission including all of the aspects of DOTMLPF+R/G/S. Like the mission scenarios included in the CONOPS, DOTMLPF+R/G/S considerations provide context of how the system will be used and supported. Before commencing work on requirements documents, future work group members should review the CONOPS to ensure they understand the vision of how the asset or system will be employed.

When initiating a CONOPS development effort, it is first important to ensure that a CONOPS document is appropriate to the acquisition being sought. A CONOPS addresses the employment and support of a system or asset that operates within a system of systems or family of systems instead of as a stand-alone component. It is well suited for acquisitions of assets or systems that have extensive user, interoperability, and/or compatibility considerations. Since it is focused more on the major asset or system, there are several key sections of the template that may not be appropriate for smaller acquisitions of hardware, equipment, weapons, or tools. Before commencing the level of effort required to formulate a CONOPS, verify that all of the sections of the template are applicable to the acquisition.

Roles and Responsibilities

Sponsor's Representative Responsibilities

Drafts the CONOPS

Sponsor Responsibilities

Approves the CONOPS

Refer to Commandant (CG-7) Requirements Generation and Management Process (Pub 7-7) for more details on development of the CONOPS.

F. Operational Requirements Document

P-ORD: The P-ORD is the first requirements document that incorporates the vision set out in the CONOPS and assigns desired operational performance expectations.

Purpose: The P-ORD sets the context of the gaps to be addressed to guide the development and evaluation of alternative design concepts. The P-ORD is derived from the MNS, CONOPS, and associated cost estimates, early Sponsor analysis (i.e., force structure assessment and C4ISR) and the historical baseline. Developed early in the Analyze/Select Phase, the P-ORD describes the missions, operational capabilities, operating environment, and system constraints that competing system concepts must satisfy. The P-ORD expresses the requirements statement before capabilities are removed or lessened due to cost trade-offs, assessment of system component technical maturity and risk, or other factors. The P-ORD serves as the Sponsor's guidance to the project office specifying the issues to address in the AA. Using the P-ORD, and working closely with the Sponsor's Representative, the PM conducts feasibility studies and/or trade-off studies. The functional requirements are analyzed, system concepts synthesized, concepts evaluated (in terms of cost, mission and environmental impacts), and the best system concept(s) selected and described. These early studies help refine requirements as the P-ORD ultimately evolves into the ORD.

Initial Key Performance Parameter (KPP): The P-ORD should define the system characteristics of the new system reflecting ORD IPT consensus. Initial Key Performance Parameters (KPP) are generally associated with operational gaps stated in the MNS, critical issues derived from the CONOPS, and overarching guidance provided by higher authority.

Critical Operational Issue (COI): COIs are the operational effectiveness and operational suitability issues that must be examined during testing to evaluate/assess the system's ability to provide the desired capability. The Sponsor shall develop preliminary COIs for inclusion in the P-ORD and ORD that will be refined by the Operational Test Agent, once designated, for inclusion in the Test and Evaluation Master Plan (TEMP).

Requirement Priority for Trade-Off Analysis: The P-ORD amplifies and derives requirements from the MNS and early mission and affordability analysis. Building upon operational insights from the CONOPS, the ORD IPT should provide a listing of trade-off priorities in the P-ORD. The purpose of including trade-off priorities in the P-ORD is to document agreement among the Sponsor, PM and TAs for the development of balanced and

affordable system concepts. The prioritization of requirements within the trade-off priority list supports feasibility studies, alternatives analysis, mission utility analysis and other studies, and cost estimates that require guidance on the most important system attributes. As part of the trade-off prioritization and analysis process, each attribute is typically assigned values and relative weighting factors to permit a clear delineation of importance within the overall system. The optimum capabilities resulting from the subsequent trade-off analyses that are determined to be affordable are documented in the ORD through the selection of the individual requirements statements and their associated parameters. When the ORD is completed, the trade-off decisions that have been made by the IPT are captured as user needs in unambiguous, affordable and feasible requirements.

ORD: The ORD is a top-level decision document which establishes the minimum acceptable standards of performance (thresholds) and optimum performance goals (objectives) for the system and, following approval, serves as a “contract” between the Sponsor and the acquirer. This “contract” represents a formal agreement between the PM and the Sponsor where the PM is expected to deliver a capability that will satisfy all requirements in the ORD.

Purpose: The ORD is the formal statement, developed by the Sponsor in collaboration with stakeholders, of the performance and related operational parameters for a proposed concept or system. It describes an operational system in terms of a range of acceptable and desirable standards of performance. As the consolidation of these performance measures in one document, as well as requirements for the support and maintenance of the system, the ORD serves as the source document for a host of SE activities, ongoing requirements analysis, and cost estimating to ensure the success of the project. An approved ORD is required at ADE-2A and revalidated for ADE-3 to support the production and deployment decision by the ADA.

Context: Requirements definition is part of the initial acquisition activities and includes shared responsibilities between the Sponsor (users) and the acquisition community (PMs) to translate operational needs into specific requirements that can be met. The materiel acquisition process can be accelerated if the ORD is properly prepared and coordinated prior to approval. The ORD, along with the CONOPS, are formal documents that provide a bridge between the functional requirements spelled out in the MNS and the detailed technical requirements found in the specification or SOW that ultimately governs development of the system. The ORD translates the MNS and the CONOPS into system-level performance capabilities and expounds upon inherent capabilities required of the system that are not explicitly stated in the CONOPS or MNS. Building from the P-ORD, the ORD uses the various studies, analysis, and systems engineering activities conducted in the Analyze/Select Phase to document a more defined set of requirements. The ultimate goal of the ORD IPT in its development of the ORD is to define the requirements and measures of success needed to develop and field useful and appropriate capability for mission success.

Discussion: The ability of the Coast Guard to acquire major systems that meet operational mission needs within cost and schedule constraints begins with the establishment of operational performance requirements. The accurate definition of requirements by the Sponsor is imperative if the major acquisition is to be completed within cost and schedule

constraints and still meet mission performance needs. The Sponsor establishes absolute minimums (thresholds) below which the mission cannot be successfully performed. The Sponsor also sets objectives to define a value beyond the threshold that reflects an operationally meaningful and cost effective increment to an operationally effective system. A key point is to ensure that the ORD conveys the user's true needs to the acquirer. Information in an ORD varies based on concept/system complexity and the maturity of the program. The ORD contains the best available information to support an ADE-2 decision. To place the ORD in perspective, it must be viewed as a step within the acquisition process rather than as an end in itself. Subsequent revisions to the ORD used in ADE-2C or ADE-3 result from better-refined requirements as the system matures.

Precepts: To effectively develop an ORD and be able to translate it into an affordable acquisition project, there are a number of precepts related to the ORD that need to be well understood.

The ORD is an acquisition document. Its purpose is to identify and provide the performance parameters that will be needed in an asset or system in order to provide the user with the capability that will either fully or partially close the mission gap(s) identified in the MNS. It is used by developers to understand the operational requirements in operationally relevant terms.

The ORD requires collaboration. An ORD IPT serves well to establish and maintain a collaborative requirements development effort. The IPT must ensure that the required operational capability is not compromised through trade-offs; however, the IPT must also guard against setting specific elements of the requirements (such as system performance parameters) at levels that are unachievable or unaffordable. The stated needs of the operator must be a controlling issue, but factors of cost, schedule, testability, and the technical feasibility of performance levels must be given their due weight.

The ORD specifies KPPs. KPPs are those system capabilities or characteristics considered essential for successful mission accomplishment. KPPs should overcome selected capability gaps from the MNS and CONOPS and be linked to the most important missions and organizational goals of the Coast Guard and DHS. KPP designation and performance parameter selection are the responsibility of senior Coast Guard management and are of significant interest to the ADA. KPPs are tracked in the APB. Failure to meet any KPP threshold results in a project "breach" and can be cause for the system selection to be reevaluated or the project to be reassessed or possibly terminated.

The ORD must consider Information Systems Interoperability within and external to the Coast Guard. If interoperable with other systems, DHS Components or other government agencies is a critical factor in mission accomplishment, an interoperability KPP shall be included. The interoperability KPP should include a detailed list of systems or other capabilities with which the asset or system to be acquired is intended to be interoperable, including an explanation of the attributes of interoperability. The ORD should only contain a limited number of KPPs (eight or fewer) that capture the parameters needed to reach the overall desired mission capabilities.

The ORD quantifies objective performance parameters. Each performance parameter in the ORD is stated in terms of a threshold (the minimum value necessary for the asset to be

considered acceptable). If warranted, an objective value may also be assigned to a performance parameter. Objective values are a level of performance beyond the threshold that significantly improves mission performance, safety, supportability, or cost. In simple terms, the asset is acceptable at the threshold level but will be much more effective at the objective level. However, caution must be used in selecting objectives. The objective value must be sufficiently supported by analysis and expressed in quantitative terms. The number of objectives in the ORD should be kept to a minimum. The PM, Sponsor, and stakeholders will determine how best to address objectives in the RFP.

NOTE: For planning purposes, the number of objectives in an ORD should be limited to five without agreement between the Sponsor and Commandant (CG-9) that a higher number is reasonable and is expected to be executable. An objective is not required for each KPP. Where there is no objective, the ORD and other requirements documents should include the statement, "Objective equals threshold".

The ORD needs to consider affordability. To achieve the requirements identified in the ORD, the budget and appropriations need to match the cost of doing the work in developing the capability. It is the PM's responsibility to highlight to senior management and the ADA if there is inconsistency between the PM's cost estimate for achieving the ORD and the Coast Guard's proposed (or approved) budget and/or Congressional appropriation. The PM must either seek funding adjustments to meet the approved ORD requirements or identify budgeted (Increment 1) and unbudgeted (Increment 2) requirements in the APB.

The ORD is a living document. During the life of the project, events may occur that jeopardize the PM's ability to achieve the ORD as it was initially approved. Those events can range from unexpected technical difficulties in developing the asset/system to insufficient funding in the Coast Guard budget or in the Congressional appropriation revisions to fund the approved ORD. In this case, a clarification or change memo is appropriate to document any changes to requirements. See Requirements Generation and Management Process, (Pub 7-7) for additional information. Irrespective of the cause, the ORD must reflect the asset or system when it is fielded for test and evaluation.

The completed ORD will be reviewed and validated by Commandant (CG-771) prior to being submitted for concurrent clearance. The ORD IPT will provide the analyses and documentation supporting the ORD to assist in the Commandant (CG-771) review.

ORD Integrated Product Team (IPT): Developing requirements is best accomplished as an integrated, cross-functional endeavor. An ORD IPT will be chartered by the Sponsor to develop the ORD for a major systems acquisition. The Sponsor's Representative will co-chair the IPT, with Commandant (CG-771) serving as the primary resource for the process. IPT membership should include representatives from the following:

- Commandant (FORCECOM) (training);
- Commandant (CG-4) (engineering, logistics, and configuration management);
- Commandant (CG-6) (enterprise architecture, IT, information assurance, spectrum management, etc.);
- Commandant (CG-1B3) (manpower, personnel, training/performance support, human factors engineering, system safety/occupational health, habitability, personnel

- survivability);
- Commandant (CG-2) (intelligence systems and capabilities, associated SCI networks, communications and spaces);
 - Commandant (CG-93) PM;
 - Commandant (CG-924) Office of Acquisition Support;
 - Commandant (CG-926) Office of Research, Development, Test and Evaluation;
 - OT&E representative (typically Operational Test Agency); and
 - Ad Hoc members as needed.

The ORD IPT will receive requirements generation training provided by Commandant (CG-771) at the initiation of the team, in accordance with Requirements Generation and Management Process, (Pub 7-7).

ORD Development Process: Developing an ORD for a major systems acquisition is a significant application of personnel, time, and resources. Generally speaking, the process shown in **Figure 16 Requirements Development Process** highlights the key stages the ORD IPT will go through as the requirements are identified and documented.

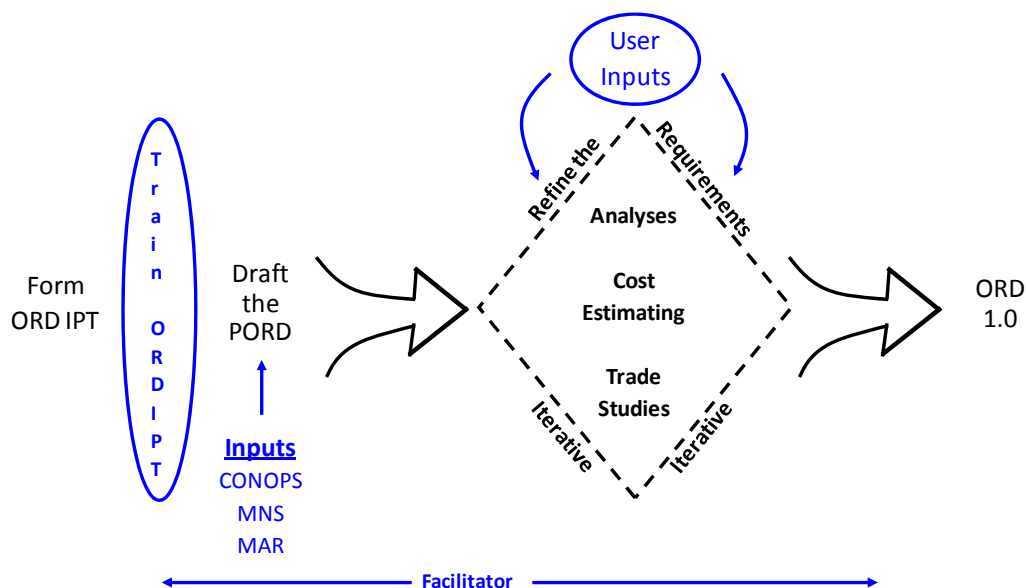


Figure 16 Requirements Development Process

A relational database shall be used to capture and document the requirements identified by the team. See Requirements Generation and Management Process, (Pub 7-7) for more details. Key attributes the database needs to provide to the team include:

- The ability to provide unique identity to each requirement;
- The ability to baseline requirements so that changes can be clearly tracked; and
- The ability to develop and export/print a requirements traceability matrix.

The database should be initiated and maintained by the Sponsor through the development of

the ORD. The PM will continue to use the database in the development of the SOW and specification.

The responsibility for defining requirements in the P-ORD and ORD lies with the Project Sponsor, who has the primary need for the system.

Roles and Responsibilities

Sponsor Responsibilities
Directs the Sponsor's Representative to prepare the P-ORD/ORD
Submits a P-ORD via the PM to the Commandant (CG-9) for acceptance
Submits an ORD to Commandant (CG-9) for CG ARB review and approval by VCG

Sponsor's Representative Responsibilities
Preparation of P-ORD/ORD
Co-Chair the ORD IPT

Commandant (CG-771) Responsibilities
Provides requirements generation training to the ORD IPT
Provides a Requirements Officer to co-chair the ORD IPT in requirements generation
Serves as process gatekeeper for Coast Guard Requirements; reviews P-ORD/ORD for compliance with requirements generation process

PM Responsibilities
Assists the Sponsor's Rep. in defining the operational and support requirements for the system as a member of the ORD IPT
If the project has been approved/funded via the appropriations process, provides funding to support the analyses needed for developing the ORD
Reviews and comments on P-ORD/ORD, provides feedback to Commandant (CG-9)

ORD IPT Responsibilities
Provides cross-functional knowledge in identifying, assessing, and documenting requirements
Includes representatives from the TAs to provide input on technical standards and policies that will apply to the ORD
Utilizes the analytical services of the APO, the RDT&E program and Service Centers, as appropriate, to refine and verify requirements

Director of Acquisition Programs (CG-93) Responsibilities

Reviews and comments on P-ORD/ORD

Commandant (CG-9) Responsibilities

Accepts P-ORD submitted by the Sponsor

Vice Commandant (VCG) Responsibilities

Approves ORD and submits to DHS for approval through Commandant (CG-924)

DHS ADA Responsibilities

Approves ORD

G. Specifications and Statements of Work

Specifications and Statements of Work (SOW): Once a specific need is identified through the ORD, the PM must describe the requirement(s) such that a system design can be created and evaluated to determine if it satisfies the Coast Guard need(s). System specifications are developed by translating ORD requirements and other design drivers into functional and select physical requirements. The SOW is a description of work tasks and related activities that are to be performed by the contractor in order to design, fabricate, integrate, test and create/produce a system design that complies with the system specifications. For brevity, this instruction refers to specifications and SOW collectively as “the specification.” The specification is one of the most important elements in the development of the RFP and resulting contract. How it is written impacts the success of the project. Specification writers should consider the following points when drafting a specification:

1. Requirements

The specification must be drafted to ensure the Coast Guard and contractor both understands the requirement. Therefore:

- Avoid ambiguous specifications. “Ambiguous” means written in such a way that it could reasonably be interpreted in at least two different ways — regardless of whether both are correct;
- Do not “borrow” requirements in whole or in part from another specification unless you fully understand the requirement. Too often specifications are drawn from previous or similar specifications, and the stated requirements are inappropriate or their meaning unknown;
- Read and become familiar with all reference materials (e.g., publications, standards, specifications, etc.) before incorporating them into a specification to ensure all requirements in these documents apply. If necessary, incorporate only the applicable portions of referenced material in the specification;
- State a requirement only once and, to the extent practicable, incorporate all reference material in full text;

- Strive to make the document readable by all parties. Define terms that have more than one meaning or use. Define acronyms. An index, table of terms, and definition section are often helpful, but try to avoid multiple cross referencing, which breaks up the flow of the text and increases the risk of duplication; and
- Use commercial or industry standards instead of Military or Federal standards to the maximum extent possible, except where Military or Federal standards including DHS and Coast Guard standards, are applied to enhance commonality or interoperability.

2. Legal Significance

The specification has legal significance. It tells potential offerors what they must do to fulfill the Government's requirement, constitutes the basis for evaluating offers to determine if they satisfy the Government's needs, and binds the successful contractor to perform in accordance with the specification. Therefore, when developing a specification, consider how effectively an offeror can assess their performance when compared to the specification requirements.

3. Competition

By law, specifications must permit full and open competition to the maximum extent practicable and they must not be unduly restrictive. To this end, specifications should reflect only the Government's minimum needs, and must not be written around a particular company's product or service. As a rule of thumb, the Coast Guard must be able to trace every stated requirement in the specification back to an operational requirement.

CHAPTER 5: PROJECT MANAGEMENT PLANNING

All project management planning documents must be staffed through varying levels of coordination and approval. It is important to plan ahead for informal staffing, coordination and formal concurrent clearance to avoid administrative delays in reviews and decision events. **Refer to Chapter 8 for details on the concurrent clearance process and the MSAM Handbook for templates outlining formats, content and approvals.**

PMs should take special note of the extra coordination and time required to get certain documents through the approval process when DHS is the final approval authority. Keeping this in mind, PMs must engage DHS early, and consider including DHS representatives as members of the associated IPTs for the following documents: CDP, TEMP, ILSP, and PSTP. In addition, the Commandant (CG-924) staff members are assigned to specific Coast Guard programs and serve as project liaisons responsible for assisting the PM and his/her staff in progressing through the acquisition life cycle.

PMs should also note that, due to the high impact and high visibility of select plans and other documents – among them the ILSP, TEMP, PSTP, PLCCE, and APB – the appropriate acquisition functional experts in Commandant (CG-92) and Commandant (CG-93AL) will provide formal independent verification and validation (IV&V) of those documents. More specifically, contracting policies and practices will be reviewed by Commandant (CG-91); systems acquisition and systems engineering life cycle policies and practices will be reviewed by Commandant (CG-924); systems performance verification testing and evaluation will be reviewed by Commandant (CG-926); life cycle cost estimation and acquisition resource programming, budgeting and execution will be reviewed by Commandant (CG-928); and acquisition logistics will be reviewed by Commandant (CG-93AL). These IV&Vs will ensure the projects meet the intent of applicable DHS and/or CG requirements for that document, before it proceeds for Flag/SES-level sequential clearance approval.

A. Capability Development Plan

Purpose: The purpose of the CDP is to serve as the agreement between the PM and the ADA on the activities, cost, schedule, and performance boundaries of the work to be performed in the Analyze/Select Phase leading up to ADE-2A/2B. The PgM or PM (if assigned) has the responsibility for preparing the CDP in the Need Phase for implementation during the Analyze/Select Phase. The CDP is signed by Commandant (CG-9) and **approved by DHS ADA at ADE-1 (or up to 90 days after ADE-1 if no PM had been assigned).**

Discussion: The CDP establishes the overall plan and timeline for conducting Analyze/Select Phase activities. The CDP should discuss topics and issues specific to the acquisition that allow the PM to clearly define the “body of work” that must be accomplished during the Analyze/Select Phase. It includes the analysis approach, how users and operators will be included in the Analyze/Select Phase activities, any technical demonstrations planned, coordination with or dependence on other projects or solution, acquisition planning, integrated logistics planning, lifecycle cost estimating, and project office resources needed. The CDP shall function as the PSTP for the Solution Engineering

Stage until the PSTP is developed prior to ADE-2A/2B. As such, it needs to also discuss the Study Plan, SPR and the Solution Engineering Review (SER). It provides the ADA with the assurance that the accumulation of knowledge (based upon sound analytical approaches and techniques) required to make an informed ADE-2A/2B acquisition decision will be available.

Roles and Responsibilities

Project Management Responsibilities

Prepare and submit CDP

Commandant (CG-9) Responsibilities

Endorse and approve CDP for Coast Guard

DHS ADA Responsibilities

Approve CDP

B. Acquisition Strategy / Acquisition Plan

Purpose: The AStr and AP are the means to discuss the acquisition planning process and document the decisions made prior to processing each major contract action. Additionally, a summary-level schedule is generally developed in support of the AP. The AStr and AP serve as mechanisms to review, approve and document acquisition decisions and create a roadmap for the implementation of acquisition decisions. An AStr is required for all Major System Acquisitions.

Discussion: The AStr includes a strategic-level overview of all known planning, technical, business and management activities for the project (e.g., logistics support, technology development and test and evaluation strategies). The AStr begins as a briefing to the CAO, Commandant (CG-9) prior to ADE-1, then progresses into a formal brief to the CAE (VCG) for approval at ADE-1. At a minimum, the brief should include an overview of what is to be acquired, what mission value the acquisition will provide and what options are being considered for level of competition and overall contracting strategies. For Coast Guard major acquisitions, the strategic-level AStr evolves into a detailed project-level AP no later than ADE-2A/2B. Note that the requirement for a project-level AP does not supersede DHS/CG requirements for “stand-alone” types of APs for each CG purchase (or CG-funded military interdepartmental purchase request / inter-agency agreement) whose value is greater than the simplified acquisition threshold (currently \$150,000). For further guidance on these latter types of APs, refer to the HSAM and COMDTINST M4200.19 (series), Coast Guard Acquisition Procedures.

Acquisition Plans shall be in writing and prepared in accordance with FAR Subpart 7.1, FAR 34.004, DHS Instruction/Guidebook 102-01-001 and HSAM 3007 Appendix H (DHS Acquisition Planning Guide). As noted in HSAM Chapter 7, paragraph 3007.102(2); “No solicitations may be issued, or funds transferred within or outside the Department until an acquisition plan (AP) has been completed and approved.” **All Level 1 projects shall submit an initial (or updated as needed) AP to DHS CPO 45 days prior to ADE-2A/2B and ADE-3 (and ADE-2C if the acquisition approach for LRIP has changed since initial**

project AP was approved). Refer to HSAM Subchapter 3007.103(h) (1) (ii) and (iii) and their respective sub-parts for detailed AP submission timeline requirements.

Roles and Responsibilities

PM Responsibilities

Prepare AStr and AP

Develop Summary Schedule

Contracting Officer Responsibilities

Support PM in formulating the AStr and AP

DHS Office of the Chief Procurement Officer (OCPO) Responsibilities

Approves Acquisition Plans for acquisitions equal to or greater than \$300 million procurement cost.

Head of Contracting Activity (HCA) Responsibilities ¹

Review and endorse Acquisition Plans for acquisitions equal to or greater than \$300 million procurement cost

Review and approve Acquisition Plans for acquisitions less than \$300 million procurement cost

¹ See Chapter 3007 and Appendix H of the HSAM for latest guidance.

NOTE: Competition is an issue that must be addressed at several points in a project or system's acquisition. Competition can be a powerful and beneficial method of contracting. Conversely, the reason for not using competition can take time to be approved, and consequently can hold up approval of a project's overall AStr and the AP. Consideration of competition in contracting is required by law (Competition in Contracting Act (CICA) of 1984), Coast Guard regulation, and policy. Using other than full and open competition requires obtaining specific exception authority, and in most cases approval in the form of a Justification & Approval (FAR 6.302-1 through 6.302-7) or Determination and Findings (FAR 1.7). Given these legal requirements, APs must be reviewed for legal sufficiency by the Office of Procurement Law, Commandant (CG-0949).

C. Human System Integration Planning

Purpose: Human System Integration (HSI) is a disciplined, unified and interactive approach to integrate human considerations into system design. Where practicable, HSI efforts impact system designs to minimize characteristics that require excessive cognitive, physical, or sensory skills; entail extensive training or workload-intensive tasks; result in mission-critical errors; avoidable training costs; or produce safety or health hazards. Planning for HSI activities should occur at the onset of the project acquisition process to set human requirements, 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, train, and support the system.

Discussion: The Coast Guard identifies seven HSI domains:

1. **Human Factors Engineering (HFE):** Employed during systems engineering over the life of the program to provide for effective human-machine interfaces and to meet HSI requirements.
2. **Personnel:** Define the human performance characteristics of the user population based on the system description and projected characteristics of target occupational specialties. Personnel attributes are design parameters.
3. **Manpower:** The mix of military, civilian, and contract support necessary to operate, maintain, train and support the system.
4. **Performance Support and Training (PS&T):** Develops options for individual, collective, and joint training for operators, maintainers and support personnel, consistent with FORCECOM policies and, where appropriate, base training decisions on training effectiveness evaluations. The PM shall address the major elements of training, and place special emphasis on options that enhance user capabilities, maintain skill proficiencies, and reduce individual and collective training costs.
5. **System Safety and Occupational Health (SS/OH):** **This domain integrates across disciplines** and into systems engineering to determine system design characteristics that can minimize the risks of acute or chronic illness, disability, or death or injury to operators and maintainers; and of equipment damage, failure or loss.
6. **Survivability:** Addresses personnel survivability issues including protection against detection, fratricide, Chemical, Biological, Nuclear, Radiation and High-Yield Explosives (CBNRE) effects; the integrity of the crew compartment; and provisions for rapid egress.
7. **Habitability:** Establishes requirements for the physical environment, personnel services (e.g., medical and messing), working and living conditions (e.g., berthing and personal hygiene).

Roles, Responsibilities, Resources: Commandant (CG-1) is the technical authority for HSI across all system's life cycle. Commandant (CG-1B3), the Human Systems Integration for Acquisition Division, is the Commandant (CG-1) technical authority representative. As such Commandant (CG-1B3), the Sponsor, PgM, PM, other TAs, Commandant (FORCECOM) and project staff shall partner to plan, resource, coordinate, and execute project and supporting HSI activities from Project Identification through Produce/Deploy and Support. Commandant (CG-1B3) has the technical staff organization to guide and advise Sponsors and PMs on HSI activities and requirements and perform its technical authority representative oversight role. Commandant (CG-1B3) will also coordinate all Commandant (CG-1) organizational oversight and support for systems acquisition projects and related efforts. For example, Commandant (CG-1B3) will work with Commandant (CG-11) to determine when/if project testing would require specific human test subjects, and thereby require additional test plan review to comply with COMDTINST 6500.1, CG Human Research Protection Program. Commandant (CG-1B3)

performs these functions for each and every acquisition project considering each of the seven HSI domains. With no direct HSI funding source, Commandant (CG-1B3) is dependent on Sponsor and PM resourcing to plan and execute HSI activities in support of each project.

Documentation: This Manual outlines required documentation required for each major acquisition project. There are very few acquisition documents that do not impact HSI issues and the user aspects of the total system. Therefore, full engagement with Commandant (CG-1B3) is essential when drafting, reviewing and gaining Commandant (CG-1) endorsement of acquisition documents. The following are significant HSI-specific documents critical for various ADE milestones:

1. **Human Systems Integration Plan (HSIP):** The HSIP describes the human systems integration program, identifies the HSI elements, HSI activities, project roles and responsibilities and how the HSI domain plans will be managed and integrated with other project elements. Commandant (CG-1B3) provides technical guidance and management of HSIP development. The HSIP is prepared during the A/S Phase.
2. **Manpower Estimate Report (MER):** The MER describes all manpower requirements to operate, maintain and support a system consistent with planned operating and logistics concepts. Manpower offsets are identified if required. The MER provides information for cost estimates. The Sponsor's Representative or PM resources the analysis required for the MER. Commandant (CG-1B3) provides technical guidance and management of MER development. Commandant (CG-1) approves the MER. The MER is prepared during the A/S Phase.
3. **Manpower Requirements Analysis (MRA):** The MRA must describe all manpower requirements to operate, maintain, train and support a system consistent with planned operating and logistic concepts. Manpower offsets are identified if required. It informs cost estimates. The Sponsor's Rep. or PM resources the MRA analysis. Commandant (CG-1B3) drafts the MRA and Commandant (CG-1) approves the MRA. The MRA is completed at the P/D Phase.
4. **System Safety Management Plan (SSMP):** A government management plan that defines system safety program requirements and ensures the implementation and accomplishment of system safety tasks and activities consistent with the overall program requirements.
5. **Human Factors Engineering Plan (HFEP):** A government management plan that defines human engineering program requirements and ensures the implementation and accomplishment of human engineering tasks and activities consistent with the overall program requirements. The HFEP is developed during the A/S Phase.

D. Alternatives Analysis

Purpose: The purpose of the AA is to conduct a series of independent analyses to identify

and document the most resource efficient method of satisfying an identified mission capability gap. The Coast Guard's AA is similar in function to the DHS's Analysis of Alternatives and satisfies the DHS requirement.

Discussion: In the Coast Guard, the Sponsor conducts and reviews Operational Analysis (OA) of current systems and MA that includes DOTMLPF+R/G/S assessments to determine mission capability gaps. Since the DOTMLPF+R/G/S is already completed, the Coast Guard usually moves directly to a focused AA, especially where no change in mission has been identified. If new missions are identified, a more extensive Analysis of Alternatives may be required. Additionally, the AA may consider alternatives such as:

- Modification of existing DHS or Coast Guard systems;
- Procurement or modification of commercially available products, services or technologies from domestic or international sources;
- A Joint, DOD or DHS Component or Other Government Agency development program; or
- A new Coast Guard unique development program.

The AA process requires an analysis of all the alternative ways to satisfy the mission need and operational performance requirements for the new capability.

1. Independent Third Party

The AA shall be conducted by an independent third party such as a federally funded research and development center, a qualified entity of the DOD, or similar independent organization that has appropriate acquisition experience. For the Coast Guard, the AA must be led by an organization independent of Commandant (CG-93) and the Sponsor. Based on this definition, the Coast Guard's RDT&E Program qualifies and may be selected to conduct the analysis. The process is started during Need Phase activities to determine what is needed to satisfy an identified capability gap. Once a determination has been made that a new materiel solution is needed, focus is narrowed to alternative materiel solutions that can satisfy the mission need. The process evolves on an iterative basis as the specific operational requirements for the new capability are identified, and life cycle costs for each alternative are developed and refined.

2. Ground Rules and Assumptions

The ground rules and assumptions for the AA are defined in the CDP previously prepared in the Need phase and approved at ADE-1. The AA involves the use of trade studies, identification of a Rough Order of Magnitude (ROM) LCCE for each viable alternative, and a Cost-Benefit Analysis (CBA) for each viable alternative to establish the Return on Investment (ROI) measure. OMB Circular No. A-11 requires a minimum of three viable alternatives to be identified, and the status quo solution.

3. Joint Development

During the Analyze/Select Phase, the AA Study Plan] (AASP) is developed jointly in

accordance with the ground rules and assumptions contained in the CDP. The [AASP development should **start shortly after ADE-1 and be completed within 30 days or less**. Review and approval of the joint AASP will depend on the project’s scope, size, criticality and other key factors. The AASP defines the assumptions, scope/bounds, and constraints and may require certain alternatives to be examined to “open up” the prospective solution trade space. Specific elements of the Study Plan include:

- Study team, director and overall resources required;
- Participating organizations and their roles and responsibilities;
- Subject matter experts;
- Study schedule;
- AA team interface planning with concurrent ORD effort; and
- The AA review and approval process.

A SPR is held as part of the SELC process to review the initial plans, assumptions, scope, and methods of analysis for the AA study. The SPR is conducted prior to commencing the actual AA. DHS PARM will be invited to participate in the SPR. Final approval of the Study Plan is by the Coast Guard Chief Acquisition Officer (CG-9).

4. Assessment

After Study Plan approval, the AA begins by assessing identified alternatives and analyzing the effectiveness, suitability and lifecycle cost of each within the framework of the CONOPs and MNS. The AA develops Measures of Effectiveness (MOEs) which are further refined via Measures of Performance (MOPs) in order to provide an evaluation framework for the alternatives. These MOEs and MOPs eventually help form KPPs that are incorporated into the ORD. The analysis results compile effectiveness and suitability measures balanced with cost to provide a preferred solution alternative(s) in the final report. The AA report is created and finalized in the A/S Phase prior to ADE-2A/2B.

Roles and Responsibilities

PM Responsibilities
Support AA Study Plan Director in development of the AASP
Support the AA as requested for trade studies, LCCEs, and Cost-Benefit Analyses
Review and endorse the AA Report
Independent Study Team Director Responsibilities
Prepare AASP
Present AASP for approval at AASP Plan Review
Lead AA Study Team in AA effort
Prepare and submit final report

Sponsor Responsibilities

Participates in the AA process to compare operational requirements to cost estimates and make refinements for affordability, as appropriate

Commandant (CG-9) Responsibilities

Approve AASP

CAE Responsibilities

Approve Alternative Analysis Report

E. Life Cycle Cost Estimate

Purpose: The LCCE provides the foundation for the Coast Guard business decisions concerning project affordability at each ADE. A LCCE provides an exhaustive and structured accounting of all resources and associated cost elements required to develop, produce, deploy, and sustain a particular asset or capability.

Discussion: Developing a quality LCCE is at the core of the Coast Guard's ability to successfully manage a project within cost and affordability guidelines. In order to improve the fidelity of cost estimates, the PM is expected to develop a CEBD (the structural foundation for the LCCE) then the LCCE, and also fund a parallel effort for Commandant (CG-928) to develop an independent cost estimate, the Coast Guard ICE. The PM, with Commandant (CG-928) support, is then expected to adjudicate differences between these two estimates to produce the Project LCCE (PLCCE) – the single best estimate. This PLCCE is then used to support project planning and budget justification. An approved PLCCE is **required to support the ADE-2A/2B decision**. The PLCCE will be maintained and updated whenever major project changes occur, **as needed to support a revision to the APB, and support an ADE-3 decision**. In addition, all Level 1 acquisition projects are required to have the PLCCE approved by DHS PARM at ADE-2A/2B.

Refer to Section E of DHS Instruction/Guidebook 102-01-001, Appendix I, LCCE, ICE and Cost Estimating Baseline Documents (CEBD) for detailed guidance on DHS specific cost estimating policy and timelines. PMs for Level 1 projects shall also verify the latest guidance with Commandant (CG-928) prior to development of or update to their PLCCEs.

DHS Instruction/Guidebook 102-01-001, Appendix I and other PARM documents are at: <http://dhsconnect.dhs.gov/org/comp/mgmt/parm/Pages/default.aspx>

Step 1A: Developing LCCEs

When developing a LCCE, PMs are to:

- Develop the LCCE for the preferred solution from the AA. The GAO Cost Estimating and Assessment Guide, March 2009, GAO-09-3SP (available at: <http://www.gao.gov/new.items/d093sp.pdf>) provides guidance and best practice information. Use of the guide is specified by DHS and is included as Appendix I in

DHS Acquisition Instruction/Guidebook 102-01-001. Particular attention should be paid to maintaining current cost estimates and ensuring contractor deliverables (e.g., contractor WBS, Integrated Master Schedule (IMS), and LCCE) are consistent with the intent of the GAO Guide;

- Provide a record of the procedures, ground rules and assumptions, data, methodology, environment, and events that underlie the cost estimate;
- Ensure LCCE is constructed in such a manner that it can be replicated and substantiated by an independent third party. It should be complete and well organized so that a cost estimating professional can use the documentation, by itself, to assess and reconstruct the estimate;
- Use a project WBS in developing the LCCE. The WBS should be based on MIL-STD-881C (for acquisition cost elements) and the GAO Cost Estimating and Assessment Guide, and further tailored to lower levels of detail as applicable to each acquisition project;

NOTE: MIL-STD-881C, DOD Standard: Work Breakdown Structures (WBS) For Defense Materiel Items (03-Oct-2011), may be found at the Defense Acquisition University website:

<https://acc.dau.mil/CommunityBrowser.aspx?id=482538>

- Develop the estimate to the key performance parameter objective level. Understanding the cost of specific levels of performance allows the PM and Sponsor to effectively perform trade-off analyses in developing the operational requirements. This cost to the key performance parameter objective level for the operational requirements as well as the difference in costs between the threshold and objective parameters is to be documented in the LCCE;
- Ensure all sunk costs are reported as part of the LCCE in order to show the full cost of the asset(s) from initial concept through acquisition, operations, support, and disposal;
- Include all personnel costs to operate, maintain, and support the asset in accordance with applicable Commandant (CG-1B3) manpower estimates;
- Ensure all asset-specific building and infrastructure costs are clearly identified so that they can be captured in the Major Acquisition Systems Infrastructure (MASI) funding request; and
- Include all costs associated with operating and sustaining the asset(s). Be sure to team with the appropriate CG organizations (such as Commandant (CG-1B3), Commandant (CG-4), Commandant (CG-6), Commandant (CG-7), and Commandant (FORCECOM)). These organizations will assist in developing and refining the LCCE, by providing applicable historical costs and helping to properly characterize and plan for the types of costs associated with the intended asset(s),

Step 1B: Independent Life Cycle Cost Estimates

Commandant (CG-9283) will develop independent LCCEs, also called an ICE, for each major acquisition project in preparation for the ADE-2 decision. The term “independent” as it relates to the ICE refers to the preparation of the estimate by an office or entity that is not under the supervision, direction, advocacy, or control of the PEO or Sponsor. The ICE is a LCCE based on the established ground rules and assumptions, WBS, technical specifications and characteristics, production and deployment schedule, logistics plan, and support plan as defined by acquisition project documents and project office staff. However, the cost estimating methodologies and techniques employed are determined by the independent cost analysts. PMs shall coordinate with Commandant (CG-9283) to support the ICE and are responsible for funding the initial effort.

Step 2: Project LCCE

PMs will review the approved PLCCE annually, to determine if funding changes or other actual/likely changes to project cost, schedule or performance require substantial updates to PLCCE results or methodologies. Updates will be required if there are significant project changes (e.g., budget as reflected in enacted appropriations, law, or Sponsor requirements), revision to the APB, and in preparation for ADE-3. Adapted from the GAO 12 step process for achieving a high quality estimate, found in the GAO Cost Estimating and Assessment Guide, the DHS PARM implemented a validation scorecard template for specifying a standard set of guidelines and criteria to be used in assessing a PLCCE. The initial PLCCE scorecard and the PM’s adjustments based on the scorecard should be submitted with the PLCCE for approval. For more information about the scorecard template, refer to the DHS PARM CE&A CoE website at:

<http://dhsconnect.dhs.gov/org/comp/mgmt/cpo/cad/Pages/default.aspx>

Roles and Responsibilities

PM Responsibilities
Develop CEBD (foundation for LCCE)
Develop LCCE with inputs from Commandant (FORCECOM), Commandant (CG-1B3), Commandant (CG-4) , Commandant (CG-6) and Commandant (CG-7)
Coordinate and compare LCCE with ICE
Submit adjudicated PLCCE for approval
Commandant (CG-928) Responsibilities
Develop ICE
Coordinate and support LCCE/ICE adjudication of differences
Conduct an Independent Verification and Validation of the PLCCE
Commandant (CG-9) Responsibilities
Endorse the PLCCE

DHS PARM Responsibilities

Validate and approve the PLCCE

F. Acquisition Program Baseline

Purpose: The APB formally summarizes the project's critical cost, schedule, and performance parameters, expressed in measurable, quantitative terms that must be met in order to accomplish the project's goals. By tracking and measuring actual project performance against this formal baseline, project management is alerted to potential problems, such as cost growth, schedule slip or requirements creep, giving them the ability to take early corrective action.

The APB documents the fundamental agreement on critical project cost, schedule, and performance objectives between the PM, CAE and the ADA. The scope of the APB encompasses the entire planned execution of the project. Its parameters trace back to the mission gaps expressed in the MNS, requirements established in the ORD and the costs in the PLCCE. The APB should be consistent with these documents.

Discussion: The PM is responsible for developing and maintaining the APB and executing the project to achieve this baseline. For major acquisitions (projects), APB parameters (threshold/objective) established for program breach reporting will be proposed by the PM and negotiated with the ADA. The project APB is formally **submitted for approval prior to ADE-2A/B and revised as needed prior to ADE-3**. ADA approval of the APB establishes the formal program/project baseline for cost, schedule, and performance. Once approved by the ADA, any change to the APB requires subsequent approval by the ADA.

An APB breach is defined as the inability to meet the threshold value of the specific parameter (see the MSAM Handbook APB Section and Sub-Section on Breaches for more information regarding threshold and objective values). Breaches to the APB can be driven by multiple causes, many of which are fact-of-life changes in requirements, resources, or schedule that are beyond the PM's control. Cost breaches should not be based on the anticipated lack of funding until those amounts are formalized in the President's Budget Request. If a project breaches an approved APB parameter threshold, or the PM determines that the project will so breach in the future, the PM will promptly notify the Program Executive Officer (PEO) and Commandant (CG-924) of the situation. The Commandant (CG-924) Office Chief will review the information to ensure that it meets the breach reporting policy and advise the PM to follow breach notification and reporting procedures in the MSAM Handbook. Typically, within 90-180 days of the formal breach notification (CAO signed APB Breach Notification Memo) a revised APB will normally be submitted to the ADA for review and approval. A sample APB Breach Memorandum and Remediation Plan template is provided in the MSAM Handbook.

PMs will use available and appropriate performance measurement tools throughout the acquisition to anticipate potential problems in meeting the key performance, cost and schedule parameters. Refer to **Table 9 APB Breaches** and **Table 10 Comparison of Breach Reporting conditions**.

Table 9 APB Breaches

Key Parameter	Breach
Cost	Failure to meet the threshold parameter for cost of the overall program or any discrete segment, as defined and structured in the APB
Schedule	Exceeds threshold schedule parameter
Performance	Doesn't satisfy one or more KPPs

Table 10 Comparison of Breach Reporting Conditions

Key Parameters	USCG/DHS Breach Condition	Congressional Breach Reporting Criteria	
Cost	Exceed Threshold ¹	>15% increase over Threshold	>20% increase over Threshold CCG Certification Required ³
Schedule	Exceed Threshold ²	>180 delay in delivery beyond Threshold	>365 day delay in delivery schedule Threshold CCG Certification Required ³
Performance	Asset or class of assets doesn't satisfy a KPP		

¹Cost Threshold: Objective + 15%

²Schedule Threshold: Objective + 180 Days

³CCG delegated this responsibility to VCG via memorandum 5402 dated 16 February 2012.

Roles and Responsibilities

PM Responsibilities

Prepare/update and submit APB

Commandant (CG-924) Responsibilities

Conduct an Independent Verification and Validation of the APB

Commandants (CG-8), (CG-9) Responsibilities

Endorses APB

Component Acquisition Executive (CAE) Responsibilities

Approves APB for the Coast Guard

ADA Responsibilities

Approves APB

G. Project Management Plan

Purpose: The Project Management Plan (PMP) establishes procedures for the overall management of the approved acquisition project. It provides the framework to define the activities/tasking, responsibilities, and the sequence of events, and supports implementation

of the SELC process.

The PMP provides centralized authority and control over all technical, business, and risk management aspects of the project. It provides IPT members and the matrix support organizations with a clear understanding of what is required of them and when it is required, so they can work together with clarity of purpose.

The PMP addresses the project planning for the acquisition of an individual asset or system. However, if a System of Systems (SoS) or Family of Systems (FoS) is being followed, the PMP must also address how the planning ensures compliance with the overall systems architecture and supports the overall systems performance and interoperability requirements. The PMP is initially prepared during the A/S Phase and is due before ADE-2A/2B. The PMP is also updated or validated annually to support the project's annual review.

Discussion: Project planning is the process of establishing detailed project phase objectives and determining the sequence of development activities needed to attain those objectives. The planning process includes establishing/defining acquisition key events, required accomplishments with success criteria within the acquisition lifecycle framework. The PM should prepare an initial PMP in consultation with all involved operational and support organizations to ensure all appropriate tasks are addressed and assigned to appropriate activities for completion. The PMP additionally documents the detailed work to be accomplished within a 12 to 18 month period. The PMP provides for project activity planning, tracking, accountability, and success to monitor progress towards Acquisition Decision Events (ADEs).

Roles and Responsibilities

PM Responsibilities

Prepare and submit PMP

Update or validate PMP annually

PgM Responsibilities

Review the PMP to ensure the Project has adequate resources

Ensure annual schedule validation or update

CAO (Commandant CG-9) Responsibilities

Review and approve PMP

H. Solicitation and Source Selection Planning

Purpose: Solicitations are the means by which the PM communicates the needs of the government to the commercial industry. A good, solid solicitation package is foundational to the success of a project. Source Selection planning permits the government to establish and educate the Source Selection team, and develop ground rules that will be used for

industry proposal review and government Source Selection.

Discussion: Planning for competition, including building a solicitation package and developing a Source Selection Plan, is complex and difficult, but represents some of the most important activities for the PM and Contracting Officer. The quality of the solicitation package – its completeness, internal coherency, clarity, and full representation of the approved requirements – is critical for project success. If the solicitation package is incomplete or unclear, the contractor may not properly address all of the approved requirements in a proposal. If not corrected before a contract is awarded, either the end product will not fully meet Coast Guard needs or changes to meet the needs will result in greater cost and/or schedule delays.

In an effort to support the development of a quality solicitation package, an independent Red Team review of Level 1 solicitation packages should be accomplished prior to its release. This review will be coordinated by the PM through Commandant (CG-924), in accordance with Acquisition Directorate (CG-9) SOP-924-1 For Independent Red Team Review of Request for Proposals (http://hqsms-spweb-001:113/PL/DMS%2020/CG-924/Policy_and_Guidance/SOP%20924-1_CG-924_Policy_and_Guidance_Non-Restricted.pdf) which addresses the Red Team review process, and will be accomplished in two parts:

1. A review of the contracting strategy by a senior management team, supplemented with personnel with significant acquisition and contracting experience.
2. A review of the full solicitation package by an independent team (usually a team that can be composed of Coast Guard personnel from the TAs, Sponsor's Representative, and personnel external to the Coast Guard).

To ensure stable requirements, RFPs for the primary element of the project are not to be released unless the ORD is approved. A waiver, approved by Commandant (CG-9) with EOC concurrence, is required to release the RFP earlier. If a waiver is approved, an approved ORD is required before a low-rate (or a full-rate) production award may be made.

Prior to release of the RFP, the PM should work with the Contracting Officer and Legal Counsel on a strategy for source selection. The PM will provide project background information to the Contracting Officer that helps inform the source selection team of project details. Within the major systems acquisition framework, the Source Selection process is managed by the Head of Contracting Activity (HCA), the process owner for selecting sources for high dollar, competitive, negotiated acquisitions. Refer to the Commandant (CG-9) CGPortal Resources link to, "Acquisition Regulations, Manuals, and Best Practices", <https://cgportal2.uscg.mil/units/cg9/Pages/AcquisitionRegulation.aspx>, for the latest **Coast Guard Practical Guide to Contracting**. Additionally, DHS offers a Practical Guide to Source Selection: http://dhsconnect.dhs.gov/org/comp/mgmt/cpo/paw/Documents/APL/Acquisition_Regulations_and_Policy_Info/A_Practical_Guide_to_Source_Selection/A_Practical_Guide_to_Source_Selection.htm.

Roles and Responsibilities

PM Responsibilities
Develop Contracting Strategy in coordination with the Contracting Officer
Support Contracting Officer in development of Solicitation Package
Include budget support for conduct of solicitation package reviews
Review the RFP to ensure that it is complete, clear and fully represents the need

Contracting Officer Responsibilities
Develop Contracting Strategy in coordination with the PM
Prepare the Source Selection Plan (to be submitted for approval by the Source Selection Authority)
Develop Solicitation Package

I. Risk Management Plan

Purpose: To provide guidance for acquisition project risk management plans, processes, tracking and reporting.

Discussion: Risk is the potential for negative variation in the cost, schedule or performance of a project or its products. A description of risk in future terms helps to identify both possible future effects and the uncertainties. Risk can be associated with any aspect of a project (e.g., technology maturity, supplier capability, design maturation, performance against plan) and may affect any element of the WBS and any schedule event. Risk addresses the potential variation in the planned approach and its expected outcome.

Risk management is a process by which uncertainties and the consequences associated with these uncertainties can be identified as early as possible and managed accordingly to minimize or mitigate cost, schedule, or performance impacts on acquisition projects. Successful risk management is dependent on the consistent early identification and mitigation of identified risks.

Risk management is most effective if it is fully integrated within the project's systems engineering and management processes. The RMP identifies the basic approach and working structure the project will use for risk management and the upfront activities needed for a successful risk management project.

The Acquisition Directorate (CG-9) SOP #7 For Project Risk Reporting, (SOP-9-7) provides guidance for Commandant (CG-9) processes for managing risk and for risk tracking and reporting.

Roles and Responsibilities

Commandant (CG-9283) Responsibilities
Collect individual project Risk Watch List submissions
Publish a monthly Risk Watch List documenting the status of all project risks

PM Responsibilities

Develop, implement and maintain a RMP

Establish, execute and fund a risk management process that is integrated with all project management disciplines

Designate a project risk manager in writing

Establish a risk management IPT

Ensure that project acquisition plans and strategies provide for risk management, and that identified risks are considered as part of all major programmatic and technical reviews and decisions

Provide appropriate risk management training

Ensure that project contracting efforts include provisions to support a defined RMP and process

Project Risk Manager Responsibilities

Responsible for managing the project risk management process for the PM

Lead for the risk management IPT

Principal point of contact for risk management within and external to the project

Project Risk Management IPTs (RM IPT) Responsibilities

Responsible for coordination of the risk management process across the project

Conduct risk assessments to ensure that risks that jeopardize the achievement of significant project requirements, thresholds, objectives or safety are properly identified, analyzed and mitigated

Include representatives from the TAs to provide risk management technical assistance and expertise for assessment of and mitigation planning for risks, as well as input on potential risks and mitigation strategies that will apply to the project

Develop appropriate risk mitigation strategies, including estimation of funding requirements

Report project risks to the risk manager

Other Integrated Project Teams (IPTs) Responsibilities

Assist in the assessment of and mitigation planning for risks that affect or will be mitigated by the IPT

Assist the risk owners with the mitigation of risks that affect IPT areas of responsibility

Report the status of project risks to the RM IPT

J. Test and Evaluation Master Plan

Purpose: The TEMP is the top-level planning document for all T&E related to a particular Major System Acquisition. The TEMP shall set forth an integrated test and evaluation strategy that will verify that the capability-level or asset-level and sub-system-level design and development, including performance and supportability, have been sufficiently proven before the capability, asset, or subsystem of the capability or asset is approved for production. The TEMP defines and establishes threshold developmental test and evaluation and operational test and evaluation to be performed to inform the production decision. A fundamental purpose of test and evaluation is to verify attainment of technical performance specifications, operational effectiveness, operational suitability and limitations. The TEMP shall describe the spectrum of developmental and operational T&E activities to be performed, including operational assessments to support a low rate initial production (ADE-2C) decision.

Discussion: During the early phases of the project, test and evaluation is conducted to demonstrate the feasibility of conceptual approach, minimize design risk, identify viable design alternatives, analyze tradeoffs, and assess the risks to achievement of planned operational effectiveness and operational suitability. As a system evolves through design, development, and integration; the emphasis in testing moves from DT&E to OT&E. DT&E is concerned chiefly with verifying contract requirements are met and engineering design goals and manufacturing processes have been achieved. OT&E focuses on Critical Operational Issues (COIs) that validate operational effectiveness and operational suitability. COI's are refined by the Test Management Oversight Team (TMOT) and final approval is through the OTA. The TEMP must be approved prior to commencing any test and evaluation activity. Additionally, an approved DT Plan and an approved OT Plan are required prior to commencing DT&E and OT&E respectively.

Key components of the TEMP include:

- The KPPs to be resolved through the integrated test and evaluation strategy;
- COIs to assess operational effectiveness and operational suitability; and
- Test and Evaluation Resource Summary to define needed funding.

T&E shall be included in the project WBS and a schedule of T&E events shall be included in the project intermediate-level schedule.

Modeling & Simulation (M&S) can assist the T&E process by assessing the asset or system in scenarios and areas of the mission space or performance envelope where testing cannot be performed, is not cost effective, or additional data are required.

The PM will plan and manage the project's overall T&E effort, in accordance with this Manual and DHS Test and Evaluation Directive Number 026-06. The PM performs this task with the assistance of the Sponsor/Sponsor's Representative, Support Program Managers (including T&E, logistics and human systems integration), as well as external testing organizations. The PM is responsible for conducting DT&E. The majority of DT&E is normally conducted by the contractor or the government activity responsible for

development and production. The PM provides technical and funding support for OT&E. OT&E is managed by the OTA.

For all major systems acquisition projects, a Test Management Oversight Team (TMOT) or Test IPT shall be established to serve as the primary test management planning forum. The TMOT will be chaired by the project T&E Manager, representing the PM. The TMOT/Test IPT should consist of representatives from Commandant (CG-926) and each organization involved (e.g., FORCECOM) in the overall T&E program for the particular project.

The OTA participates in the TMOT to ensure coordination of activities and overall achievement of test objectives. The OTA plans, conducts and reports independent operational test and evaluation efforts. The OTA may be organic to the Coast Guard or another government agency, but must be independent of the acquirer and the developmental contractor.

The PM, in consultation with the Sponsor and Commandant (CG-926), will nominate an appropriate OTA. Once the OTA is identified, Commandant (CG-926) will submit an OTA approval request to DHS, who appoints the OTA.

After completion of Operational Testing, the OTA will present their findings in the OT&E report, which is submitted to the PM, Sponsor, CAE, DHS Director, Test & Evaluation and Standards (DTS), DHS Director Operational Test and Evaluation (DOT&E) and presented to the ADA. The OTA must be prepared to present and defend those findings to the CAE or the ADA at ADEs or other project reviews. ADAs will ultimately determine the degree to which they accept and factor the evaluator’s findings and recommendations into programmatic decisions. However, they must make such determinations in view of the evaluator’s objective and unbiased assessment.

NOTE: In compliance with the Coast Guard Authorization Act of 2010, safety concerns identified during DT or OT shall be communicated as soon as practicable (no later than 30 days after test completion) to the PM and CAO. Any safety concerns that are expected to be uncorrected or unmitigated prior to contract award or delivery/task order issue shall be reported to the appropriate congressional committee(s) at least 90 days prior to award of any contract or issuance of and delivery/task order for low, initial, or full-rate production of the asset or system.

Roles and Responsibilities

PM Responsibilities
Prepares the TEMP within three months of ORD signature
Prepares the DT&E Plan
Identifies OTA (with Sponsor concurrence and DOT&E approval)
Prepares the DT&E Report(s)
Chairs OTRR to determine system readiness prior to entering Initial OT&E

PM Responsibilities

Provide resources for all test and evaluation efforts

Provides interface between the development contractor and the government testing community

TMOT/Test IPT T&E Responsibilities

Serves as the primary test management planning forum

Assists the PM in preparation of the TEMP

Assists the PM in updating the TEMP

Assists PM in preparing the DT&E Plan

Reviews and comments on the final DT&E Report

Assists the OTA in preparing the EOA Plan (optional) and the OT&E Plan

Assists in the execution of the DT&E Plan and the OT&E Plan

Sponsor/Sponsor's Representative Responsibilities

Reviews and comments on TEMP

Reviews and comments on DT Plans

Reviews and comments on TEMP Updates

Participates in OTRR

RDT&E Program, Commandant (CG-926)

Provides test and evaluation oversight

Conducts an Independent Verification and Validation of the TEMP

Core member of TMOT

Tracks verification of performance specification requirements

OTRR approval authority

OTA Responsibilities

Reviews Operational Requirements Document (ORD) for testability, provides feedback to Sponsor

Develops the OT Section and OT portion of Resource Section of the TEMP, and refines the COIs

Reviews and comments on the TEMP and any updates

Participates in OTRR

Prepares the OT&E Plan(s)

Conducts/Manages OT&E

Prepares/Submits the OT&E Reports (EOA, OA, IOT&E and FOT&E)

Director of Operational Test and Evaluation (DHS) Responsibilities
Reviews ORD
Approves OTA
Approves TEMP
Participates in TMOT activities
Issues Letter of Assessment for Operational Test Reports
Participates in OTRR
Observes Operational Testing

K. Integrated Logistics Support Plan

Purpose: The Integrated Logistics Support Plan (ILSP) is the formal acquisition management document that describes the management approach for obtaining a highly supportable capability with an affordable and effective support structure. The primary purpose of the ILSP is to describe the necessary logistics support activities for each ILS element, the responsibilities assigned for each element, and the schedule for completing support activities.

Discussion: The ILSP lays out the PM's plan for ensuring the supportability and sustainability of a future capability. Overall logistics support objectives include:

- Identify logistics constraints and define resultant logistics support requirements;
- Identify or define system support requirements during design and development;
- Influence the design to ensure life cycle support is affordable;
- Design the logistics support system appropriately for the system(s) being acquired;
- Acquire and field the necessary logistics resources in a timely and cost effective manner to achieve system readiness requirements; and
- Deploy a fully functioning logistics support capability for use during the Operations and Support period.

The ILSP includes the approach, schedule, and funding requirements for integrating supportability requirements into the systems engineering process to enable 'designing the system for support,' (e.g., developing/obtaining an integrated systems support package including spares, support equipment, tech manuals) and 'supporting the design.'

The ILSP depends on analyses and planning developed earlier within the acquisition process (i.e., CONOPS, ORD, and AA), and provides inputs to other crucial documents, particularly the APB and PLCCE. The ILSP must be consistent with the information provided in the PMP and AP. Close interrelationships between the ILSP and these other acquisition documents are critical to obtaining thorough and accurate supportability and

sustainment planning and execution. The ILSP must also address programming and budgeting for ILS funding; contracting for supportability and sustainment; obsolescence management; environmental, safety and occupational health considerations; automatic identification technology; funding for logistics assessments; deployment and fielding; post-production support; and retirement and disposal.

An Integrated Logistics Support Management Team (ILSMT) will be established during the Analyze/Select Phase. It should consist of members representing various logistics support elements at HQ, the applicable Logistics Centers and Service Centers of the Mission Support Organization, the Project Resident Office (PRO), the Sponsor's Representative, other interested organizations, and contractor representatives, as appropriate for the project. It requires the active participation of functional area representatives across the spectrum of Supportability and Sustainability elements listed below.

Supportability Elements:

- Maintenance Planning
- Manpower, Personnel and Training
- Product and Technical Data
- Facilities/Infrastructure
- Obsolescence Management

Sustainability Elements:

- Supply Support
- Support Equipment
- Environment, Safety and Occupational Health
- Packaging, Handling, Storage and Transportation
- Information Technology Resources
- Deployment and Fielding
- Post Production Support

ILS shall be included in the project WBS and a schedule of ILS events shall be included in the project intermediate level schedule. The ILS schedule is included in the ILSP to show the timing of ILS events in relation to the major programmatic decision events. Formal logistics support and sustainability reviews are specifically included to ensure readiness, in accordance with Coast Guard Independent Logistics Assessments Plan (ILA), COMDTINST 4081.19 (series) and Coast Guard Logistics Readiness Reviews (LRR), COMDTINST 4081.3 (series).

The ILA will be performed to assess the product support management processes needed to achieve required performance objectives outlined in the ORD. In addition to assessing product support planning for sustainment elements, the ILA should also review other project planning documents to ensure that they project effective product support strategies. Product support planning and implementation processes must demonstrate sufficient life cycle management planning to promote effective program management and execution of

the activities necessary to acquire and subsequently sustain the project successfully.

The LRR focuses on logistics execution and delivery to examine whether the project ILS is effective, that the level of support to be delivered is sufficient and that the appropriate level of support is properly budgeted. The LRR will also evaluate policies and procedures to ensure they provide proper guidance.

The PM must plan, budget and facilitate ILAs and LRRs as part of preparing for milestone decisions (coordinate with Commandant (CG-44) for cost estimate to include in project budget). Commandant (CG-44) is responsible for conducting the ILA/LRR and producing the final report. The PEO (Project, Commandant (CG-93AL) and CG APO) should have some level of awareness and engagement with the ILA/LRR team during analysis and report development.

Chapter 2 and the MSAM Handbook provide amplifying information on ILA/LRR timing, responsible parties, and conduct.

Roles and Responsibilities

PM Responsibilities
Establish and manage an effective ILS program
Coordinate with the ILS Manager for joint budget planning and coordination, and complying with Commandant (CG-4) guidance and policy
Relate support to project readiness objectives, system design, acquisition and operating costs, and the acquisition strategy
Submit ILSP

ILS Manager Responsibilities
Formulate, coordinate and implement the ILS program
Coordinate with the PM for joint budget planning and coordination, and complying with Commandants (CG-1), (CG-4), (CG-6) and (CG-8) guidance and policy
Prepare the ILSP
Manage the collection of data received from analysis completed in accordance with the plan
Chair the ILS Management Team (ILSMT)
Plans, coordinates, and implements transition activities (in coordination with applicable support agents) to ensure a seamless transfer of sustainment practices, processes, and arrangements to the Systems Support Agent

ILS Management Team Responsibilities
Logistics Support Plan
Review, develop, coordinate, and integrate ILS requirements and resolve problem areas

Commandant (CG-93AL) Responsibilities

Conduct an Independent Verification and Validation of the ILSP

Commandant (DCMS) Responsibilities

Approve ILSP for Coast Guard

DHS ADA Responsibilities

Approve ILSP

L. Configuration Management Plan

Purpose: The purpose of the CMP is to establish a process for Configuration Management (CM) in order to identify, document, audit, and control changes to the configuration of the new system/equipment being acquired.

Discussion: CM is an integral part of acquisition and project management for both hardware and software systems. An asset's configuration represents its functional (performance) and physical (form and fit) characteristics. These characteristics are described in technical documentation, assessed, and verified in a series of technical reviews and configuration audits.

CM objectives include:

- Identify and document the functional and physical characteristics of selected system components designated as configuration items, during the life cycle;
- Control changes to configuration items and their related technical documentation using a defined process;
- Record and report information needed to manage configuration items effectively, including the status of proposed changes and implementation status of approved changes; and
- Ensure that the complex aggregate of configuration items meets the system specified and operational requirements, and verify actual product configuration against required attributes.

CM processes span the entire life cycle and are driven more by project technical and CM events rather than a specific acquisition phase. Configuration changes occur throughout the life of the asset as more knowledge of the asset design, operation, and maintenance concepts is gained, and mission requirements change. Acquisition Directorate (CG-9) Policy Statement #1 *Program and Project Cost Management* provides specific guidance on the scope of modifications to major acquisition contracts that may be approved by PMs, in coordination with the PgM, Contracting Officer and, as necessary, Counsel. It also calls

for inclusion of a change order account in the project budget to promote value engineering and correct Government responsible deficiencies.

Each major systems acquisition project shall develop a CMP. The CM planning information shall be tailored, as appropriate, for the specific acquisition. During the Analyze/Select Phase, each major systems acquisition will develop and document the CM process that will be followed. CM shall be included in the project WBS and a schedule of CM events shall be included in the project schedule. Coast Guard CM Policy requirements and responsibilities are outlined in Coast Guard Configuration Management Policy, COMDTINST 4130.6 (series) and the National Consensus Standard for Configuration Management, EIA-649. Annex 3 of the Implementation Guide for Configuration Management, GEIA-HB-649 includes a checklist for CMP development. Additional guidance is available in EIA-649B and the accompanying handbook.

A CCB will be chartered and used by the PM as the primary working group to manage the product configuration. Commandant (CG-444) will provide training and assistance to establish this board. The CCB shall be chartered as soon as the Functional Baseline for the product is established or approved.

For products in both production and sustainment, changes approved by the product CCB that will impact fielded assets will be referred to the cognizant Coast Guard CCB, in accordance with Coast Guard Configuration Management Policy, COMDTINST 4130.6 (series). Product/support changes approved by the cognizant Coast Guard CCB that will prompt major changes to acquisition, operational or sustainment activities and associated Coast Guard budget will also be reviewed and approved by the PEO [for acquisition impacts] and the Executive Oversight Council (EOC) [for all impacts] prior to implementation. The EOC fulfills the Executive Management Council responsibilities (for configuration management) as outlined in Coast Guard Configuration Management Policy, COMDTINST 4130.6 (Series).

The PM shall have agreements in place with the platform manager for transition of CM authority of delivered assets. During sustainment, when changes to the Functional Baseline are being assessed, the CCB chair will be the Sponsor or Sponsor’s Representative; otherwise the CCB chair will be the platform manager. A sample template for a CCB Charter is provided in the MSAM Handbook.

Roles and Responsibilities

PM Responsibilities
Establish a CM program
Designate a CM Manager responsible for overall conduct of CM and technical data management for the acquisition project, notify Commandant (CG-444) of designated individual
Complete/Update CMP and submit for approval
Draft the CCB charter not later than DHS ADE-2A
Convene and chair the acquisition project CCB

PM Responsibilities
Evaluate the impact of proposed changes to the Sponsor's functional requirements and provide recommendations based on feasibility, cost and schedule
Approve, disapprove, or refer to a higher authority all proposed changes to an established configuration baseline, as appropriate
Receive CCB recommendations, as CCB Chairperson, on the disposition of requested change proposals to allocated and product baseline. Approve/disapprove change proposals
CCB Responsibilities
Review and recommend approval, disapproval, or referral, as appropriate, on all proposed changes to an established configuration baseline
Monitor the CM process by working with the PM and project Configuration Manager to ensure the system configuration remains in agreement with the approved configuration baseline(s); the Configuration Status Accounting database is current; and configuration control is being exercised effectively
Review change proposals and requests for deviations to ensure that they are consistent with the operational requirements and that they are properly analyzed and documented
Monitor implementation of approved changes
Commandant (CG-93) Responsibilities
Approve CMP
Review and approve or submit major changes (in excess of PM approval authority) to the EOC
EOC Responsibilities
Review and approve major changes (in excess of PM and PEO approval authority) that impacts overall Coast Guard budget

M. Project SELC Tailoring Plan

Purpose: The Project SELC Tailoring Plan (PSTP) is used to establish the appropriate level of systems engineering for the project or the discrete segment by identifying the SELC stages and products that will be executed during the remainder of the acquisition lifecycle.

Discussion: Since no two projects are identical in scope or content, each project systems engineering approach can be tailored for optimum success. The SELC should be applied in a tailored manner appropriate to project size, scope, complexity, risk, and security categorization. Tailoring facilitates flexibility in the design and application of an appropriate development life cycle to fit project characteristics, while ensuring compliance with the requirements of Appendix B of DHS Instruction/Guidebook 102-01-001, *Systems Engineering Life Cycle*. The number of SELC activities and documents required for project development may differ between acquisitions due to each project's unique

characteristics. Specific SELC requirements may be waived as part of an approved PSTP. Deviations – the approved alteration of the standard requirements of the SELC – are also part of the tailoring process. A PSTP is required **no later than ADE-2B**. The CDP will function as the PSTP until the PSTP is approved, therefore the activities performed during the Analyze/Select Phase should be covered in the CDP.

Major projects with significant IT content and C4IT projects will follow the overall guidance of the SELC; however, tailoring may require inclusion of C4IT specific guidance contained in the Coast Guard CIO System Development Life Cycle (SDLC) process. Non-major C4IT projects will comply with the SDLC process. The SDLC process is provided in C4IT System Development Life Cycle (SDLC) Policy, COMDTINST 5230.66 (series), and meets the intent of the DHS SELC for non-major acquisitions.

- **Project Manager:** The PM is responsible for the planning and execution of the project’s overall C4IT effort. The PM performs this task with the assistance of the Commandant (CG-6) Asset Manager. The PM is responsible for compliance with the C4IT policy framework, through a tailored SELC process. The PM provides technical and funding support for SELC process activities and is responsible for C4IT related certifications and testing.

- **Asset Manager:** Commandant (CG-6) (or delegate) will designate in writing an Asset Manager for each Major System Acquisition project that is a C4IT project or has been determined by Commandant (CG-6) to have a major C4IT element within the project. Designation of an Asset Manager should occur within three months of ADE-1. The Asset Manager serves as front line support and facilitator for SELC process compliance. The Asset Manager will aid the PM in the tailoring, planning, phasing, and coordination of C4IT requirements and associated SELC activities. In more complex relationships, where a system project interfaces with a platform manager and or a C4IT PM, the Asset Manager and PM need to coordinate efforts and work to establish a teaming agreement through an IPT structure or with formal memorandums of agreement. The objective should be a coordinated, mutually beneficial integration of capability.

Roles and Responsibilities

PM Responsibilities
Develops Project SELC Tailoring Plan (PSTP)
Provides technical and funding support for SELC activities
Executes approved Project SELC Tailoring Plan

Asset Manager (C4IT only) Responsibilities
Lead Point of Contact for Project to Commandant (CG-6) interface
Assists PM in developing the Project SELC Tailoring Plan
Shepherds project through Coast Guard EAB
Coordinates DHS EAB interface

Asset Manager (C4IT only) Responsibilities

Assist PM in planning and managing C4IT activities

Director of Acquisition Programs (CG-93) Responsibilities

Approve the PSTP for the Coast Guard

DHS PARM and CIO Responsibilities

Approve the PSTP

N. Deployment Plan

Purpose: The Deployment Plan (DP) is the planning document that addresses all areas of asset deployment related to the acquisition. The purpose of the DP is to ensure that all required resources (e.g., personnel, training and facilities) are identified and provided to operate and sustain the new asset or capability when it arrives at the deployed location.

Discussion: As a major systems acquisition project approaches the mid-point of the Obtain Phase, or start of LRIP, planning actions must be completed for deployment of the new assets to the users. An approved DP should be in place **no later than delivery of the first asset**. Planning considerations include the timing of deliveries, the order in which new assets or capabilities will be delivered, facilities/infrastructure, homeport or operating site selection and appropriate environmental impact analysis, modification of computerized prototypes to create virtual trainers, and (in many cases) the disposal of old assets as they are replaced by new ones.

The DP should be prepared in consultation with all Operating and Support Program Managers who are likely to participate in deployment efforts, to ensure that all appropriate deployment issues are addressed. Deployment considerations for vessel, aircraft, and electronics systems acquisitions are provided by the technical and organizational specialties represented on the project management matrix/IPT.

Roles and Responsibilities**Sponsor's Representative Responsibilities**

Prepares the DP to identify how the new assets will be deployed

PM Responsibilities

Provide the schedule for new asset/capability delivery

Review and endorse the DP after it is prepared

APO Responsibilities

Coordinates with the Logistics PgM and with the acquisition project office to properly plan and prepare for fielding the capability. Ensures that the operating and support units get the required capability packages.

Sponsor Responsibilities
Approve the DP

O. Post Implementation Review

Purpose: The purpose of a PIR is to baseline the cost, performance, and operational outcomes of acquisitions that are transitioning to steady state. The need to effectively evaluate an asset's ability to meet the Coast Guard's mission needs, both functionally and economically, does not end at deployment/fielding. A PIR is typically conducted by the Sponsor on deployed projects to evaluate the actual results compared to predictions in terms of baseline goals for cost, schedule, performance, and mission outcomes; to determine the causes of major differences between planned and end results; and to help improve project management practices by applying lessons learned.

Discussion: As discussed in Circular No. A-11 Preparation, Submission, and Execution of the Budget (OMB Circular No. A-11), the DHS CPIC Guide, and DHS Instruction/Guidebook 102-01-001, PIR assessments are conducted to determine the degree of project success and to evaluate the impact of the deployment on customers/operators, the mission and program and/or mission capabilities. The PIR also provides a baseline for subsequent comparison during follow-on Operational Analyses. To provide an accurate baseline, the PIR evaluates a fielded asset in its fully implemented operational environment; meaning, the support system for the asset must be in place long enough to provide statistically meaningful information. The PIR should be completed during the Produce/Deploy and Support phase **approximately 12 months after IOC and prior to ADE-4**. Lessons learned during the review process should be applied to improve continuing support functions and documented in the CG-9 Lessons Learned Database to improve overall acquisition project management. Once the PIR is completed and a baseline assessment is established, the Sponsor will be required to conduct an OA on an annual basis (consult the DHS Operational Analysis Guidance for format of an OA). The OA is used as the performance measuring process to measure the performance and cost against the established baseline. It permits identification of improvements needed or in some cases, identification of a need to acquire a new solution or asset.

Roles and Responsibilities

Sponsor's Representative Responsibilities
Prepare the PIR with support from the PM

PM Responsibilities
Provide input regarding cost, schedule and performance
Review and endorse the PIR after it is prepared

Commandants (CG-9), (CG-93), PgM for Commandant (CG-93) and Support PgM Responsibilities

Endorse the PIR subsequent to the PM's endorsement
--

Sponsor Responsibilities

Approve the PIR

P. Project Transition Plan

Purpose: The PTP sets the requirements and establishes procedures for handoff of the acquired capability to the sustainment community for operations and support.

Discussion: The PM and the operational and support organizations work together to identify remaining tasks and accomplish successful acquisition project closure. On the handoff date (typically ADE-4) the operational and support organizations will assume responsibility for the delivered products/capabilities throughout the remainder of the Support Phase of the life cycle.

The PTP shall identify the operational and support organizations that will assume management responsibility for controlling and maintaining the configuration of the products/capabilities.

An approved PTP should be in place by 12 months prior to either the delivery of the final unit of the project's production or the planned acquisition project's closeout date, whichever comes first. The PTP shall be updated or revalidated in preparation for ADE-4.

Roles and Responsibilities

PM Responsibilities

Identify and coordinate all the project's transition tasks
--

Prepare and submit the PTP

Project Sponsor and Supporting Organization Responsibilities

Review and endorse the PTP

Director of Acquisition Programs (CG-93) Responsibilities
--

Approve the PTP

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CHAPTER 6: CAPITAL INVESTMENT PLANNING**A. Introduction**

The Coast Guard must manage its portfolio of capital assets to ensure that public resources are wisely invested. Capital programming is an integrated process for planning, budgeting, acquisition, and management of a component's portfolio of capital assets to achieve strategic goals and objectives with the lowest LCC and least risk. The Capital Programming Guide (series) Supplement to OMB Circular A-11: Planning, Budgeting, and Acquisition of Capital Assets provides guidance on the principles and techniques for effective capital programming. The contents of this Chapter are provided to highlight the relationship between capital programming and major systems acquisition processes. In the context of Major Systems Acquisitions, capital investment programming has two interdependent functions; to provide capital asset acquisition resources (funding and personnel), and to establish affordability constraints. Capital programming integrates the planning, acquisition and management of capital assets into the budget decision-making process. The major challenge for PMs is to integrate the acquisition management process (event based) with the budget process (calendar based).

OMB's latest version of the Capital Programming Guide may be found at:
http://www.whitehouse.gov/omb/circulars_all_current_year_all_toc

B. Planning, Programming, Budgeting, and Execution

PPBE is the primary resource management system for DHS and is described in detail in DHS Management Directive (MD) # 1330, Planning, Programming, Budgeting and Execution. The objective of the PPBE process is to articulate DHS goals, objectives, and priorities and to align those goals to develop and implement a program structure with time-phased financial resources and personnel requirements to accomplish those goals and objectives. The PPBE Model is depicted in **Figure 17 PPBE Process**.

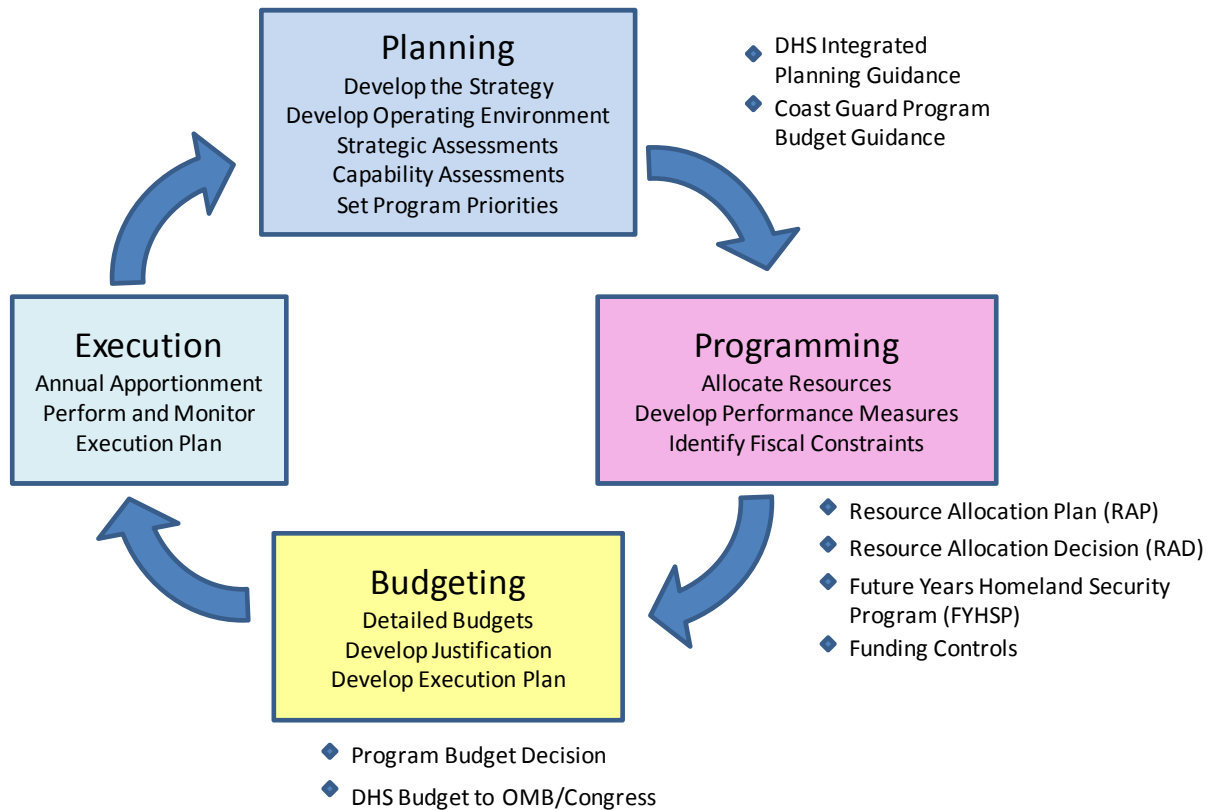


Figure 17 PPBE Process

The Coast Guard follows the PPBE process to articulate a budget strategy; identify size, structure, and equipment for operating forces; allocate resources; and evaluate actual outcomes against planned performance to adjust resources as appropriate. The following overview is provided to help PMs gain a better understanding of the PPBE process.

Planning: Establishes the priorities, and capabilities required to achieve strategic goals (long-term 5-10 years). Planning includes an assessment of current capabilities and a review of existing and emerging threats to identify gaps and deficiencies to develop budget guidance to address these gaps. The DHS IPG is issued annually under DHS memorandum and provides the direction and guidance for the Coast Guard to develop their five year CIP and to begin preparation of the annual Acquisition, Construction and Improvement (AC&I) budget submission. The CIP reflects the AC&I funding stream for Major Systems Acquisitions. The planning phase ends when the DHS IPG is issued followed by the Commandant's Program Budget Guidance (PBG).

Programming: Applies the limited resources (funding and personnel) to programs that provide the capabilities (hardware, services) required to achieve the priorities and strategic goals (mid-term 5-years) as documented in the annual DHS IPG and USCG PBG. Programming turns guidance into affordable, achievable packages and allocates resources to maximize the achievement of component goals. Each January, DHS issues top-line fiscal guidance to each Component. These financial targets are negotiated in close coordination with OMB. Fiscal guidance, the IPG and formal instructions provided by Office of Chief Financial Officer (OCFO) Program Analysis and Evaluation (PA&E) and

USCG PBG serve as the guidelines for Component Resource Allocation Plan (RAP) submissions. This phase is resource constrained and results in a RAP for submittal to DHS. The RAP must prioritize what is affordable within fiscal constraints in addition to identifying any unfunded requests. The RAP is the Coast Guard's preliminary budget request to DHS. The DHS Investment Review Board reviews RAP submittals from each component and issues a Resource Allocation Decision (RAD). The RAD is the DHS pass-back to the Coast Guard RAP, and is the Secretary's formal approval of the 5-year program funding levels and becomes the basis for the individual budget for each component and Future Years Homeland Security Program (FYHSP) submissions to OMB.

NOTE: DHS Instruction/Guidebook 102-01-001 calls for development of a Component P-MNS, to support identification of potential multi-Component or multi-Department mission need. A P-MNS is also an element of information considered in DHS Program Resource Board decisions on funding (e.g., to insert a wedge of funding for a new start in the FYHSP). In the Coast Guard, the draft MNS shall – upon signature by the Assistant Commandant for Capabilities (CG-7) – be considered a P-MNS, and submitted to DHS via Commandant (CG-924).

Budgeting: Applies the available funding towards the approved acquisition projects, with supporting justification and an execution plan (1-year) for accomplishing goals and objectives. Budgeting includes the process to request resources to be appropriated by Congress. The final output is the DHS component of the President's Budget submitted to Congress for approval and appropriation of funds. The FYHSP is a 5-year budget approach (e.g., the Fiscal Year (FY) 13-17 FYHSP includes the FY13 budget with the out-year targets to FY17 showing percentage based caps that cannot be exceeded for each year).

Execution: Includes the final actions required to effectively, efficiently, and economically accomplish the prioritized acquisition projects for which funds were requested and approved. Funds execution and actual project performance feed back into subsequent planning, programming, and budgeting phases. The PM will utilize Program Management Data Sheet (PMDS) to report asset delivery, costs and expenditures for submission to Commandant (CG-8) in accordance with the Financial Resource Management Manual (FRMM), COMDTINST M7100.3 (series).

Acquisition PMs need to understand the PPBE process and get involved early in the process for the overall benefit of their projects – without resources (funding and personnel) there is no acquisition project. The primary Coast Guard inputs to the PPBE process are the Coast Guard Budget Guidance and the individual RPs. Within the Coast Guard, an Investment Board is chartered by Vice Commandant to build a budget for execution and position the Coast Guard for the future with capital investments. The Investment Board is charged with ensuring that the budget build process reflects the planning and priorities outlined in the DHS/Coast Guard Strategic Plans. The Resource Group is an advisory body to the Investment Board and charged to prioritize and recommend investments for consideration in planning, programming, and budget proposals.

The PPBE process supports development of the Coast Guard's Fiscal Year budget and CIP for submission to DHS. The FY Budget becomes part of the DHS Presidential Budget submission and the CIP is the Coast Guard's AC&I portion of the DHS FYHSP (**Figure 18**

PPBE Overlapping Cycles). The CIP and FYHSP provide project funding allocations, performance, and ADEs for the budget year plus four years in support of DHS goals and priorities as identified in the IPG.

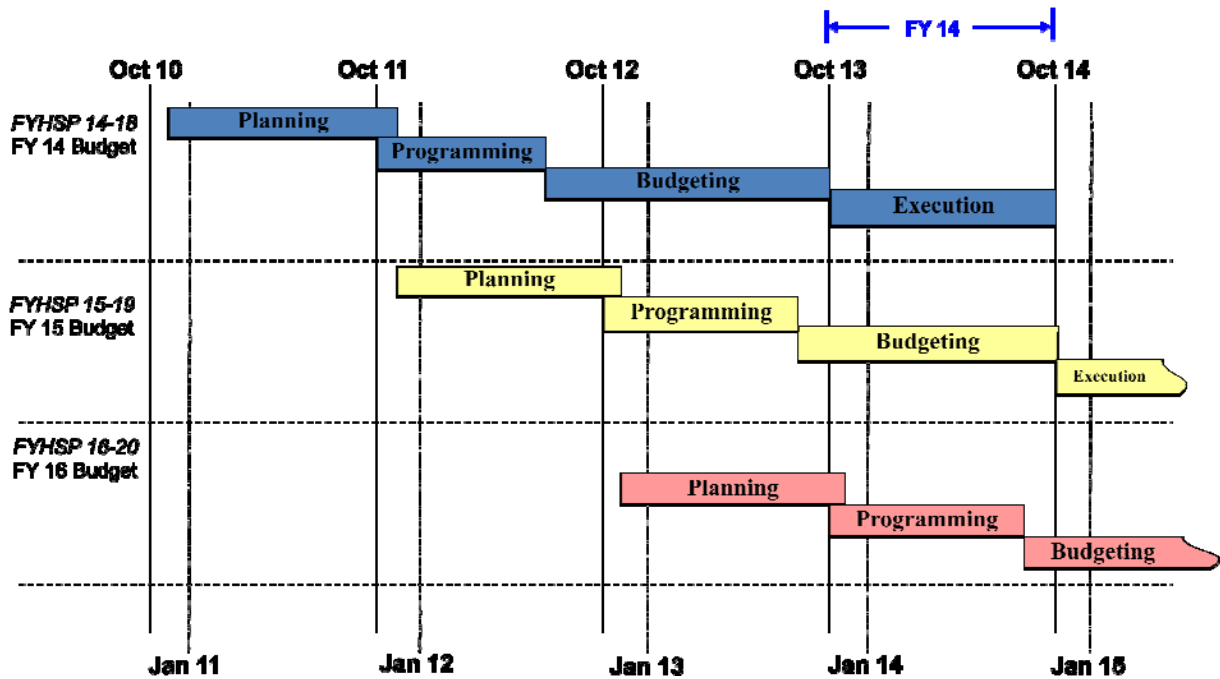


Figure 18 PPBE Overlapping Cycles

C. Exhibit 300

OMB Circular No. A-11 Preparation, Submission, and Execution of the Budget (OMB Circular No. A-11) and DHS provide policy guidance annually. These annual policy guidance updates indicate the investment type required to submit or update the Exhibit 300: Capital Asset Plan and Business Case Summary (Exhibit 300), and the Exhibit 53: Information Technology and E-Government (Exhibit 53). Starting in 2013, Non-IT projects are required to submit a tailored E-300 or business case. Since OMB Circular No. A-11 changes every year, the Coast Guard point of contact for the annual requirement is Commandant (CG-822). Commandant (CG-924) in concert with Commandant (CG-822) will ensure PM/PgMs have the latest guidance for the most current OMB, DHS and Coast Guard formats and information requirements for specific Exhibit 300 and Exhibit 53 forms.

Exhibit 300s are reviewed and scored to ensure that spending on acquisitions directly supports DHS strategic goals and the President’s Management Agenda. New projects must be justified based on their ability to contribute to DHS strategic goals with the least life cycle costs of all possible solutions and minimal risk to the Government. PMs need to provide risk-adjusted cost and schedule goals with measurable performance benefits identified. Projects that are in planning (Pre-Acquisition) or full acquisition (Acquisition) must demonstrate satisfactory progress towards achieving baseline cost, schedule and performance goals. Assets that are in the Produce/Deploy and Support Phase must document how close actual annual operating and maintenance costs are to the original

LCCEs. Documentation starts with the PIR and continues with annual OAs.

In general, Exhibit 300 forms provide information to help describe and justify the investment, and to help in the management of the execution of those investments through the acquisition project life cycle. The project's Exhibit 300 and APB should align and be consistent.

The Exhibit 300 is designed to (1) coordinate OMB's collection of component information for its reports to Congress required by the Federal Acquisition Streamlining Act of 1994 (FASA) and the Clinger-Cohen Act of 1996 (CCA); and (2) to ensure that the business case for the acquisition of capital investments are made and tied to mission statements, long-term goals and objectives, and annual performance plans that are developed pursuant to the Government Performance and Results Act of 1993 (GPRA).

D. DHS Acquisition Review Process

DHS Directive 102-01 establishes an ARP and Acquisition Review Board (ARB) to:

- Integrate capital planning and acquisition control, resource allocation, budgeting, acquisition, and management of acquisitions;
- Ensure that spending on acquisitions directly supports and furthers DHS' mission and provides optimal benefits and capabilities to stakeholders and customers;
- Identify poorly performing acquisitions that are behind schedule, over budget, or lacking capability so corrective actions can be taken;
- Identify duplicative efforts for consolidation and mission alignment when it makes good sense or when economies of scale can be achieved; and
- Improve acquisition management in support of the President's Management Agenda.

The ARP is the support process followed to prepare for an ARB and to ensure appropriate implementation of the decisions made at the ARB. At the outset of the acquisition lifecycle, PARM works with Department stakeholders, the PM for the acquisition, and the Component organization responsible for oversight of the acquisition to identify the key acquisition decisions to be made and the key preliminary issues to be resolved.

- Prior to the ARB, PARM coordinates a review of the acquisition by the Acquisition Review Team (ART), comprised of the action officers for the ARB members. This review consists of: (a) a briefing to the ART on the project's current status and known issues; (b) the collection of comments from ART members and other stakeholders and the assembly of a common set of issues to be addressed by the ARB; and (c) a briefing of the ART by PARM to summarize the issues and decisions to be made at the ARB. Following this review, PARM prepares an issue paper for the ARB; Following an ARB meeting, PARM shall prepare an ADM as the official record of the Acquisition Decision Event, to be signed by the ADA. The ADM shall describe the approval or other decisions made at the ARB and any action items to be satisfied as conditions of the decision; and

- Following the approval of the ADM, PARM tracks the action items contained in the ADM and reports to the ADA on any failure to satisfy required actions. Completion of action items is a prerequisite for advancement to the next phase of the Acquisition Lifecycle.

Figure 19 Capital Acquisition Planning shows the inseparable link between the ARP and the PPBE process.

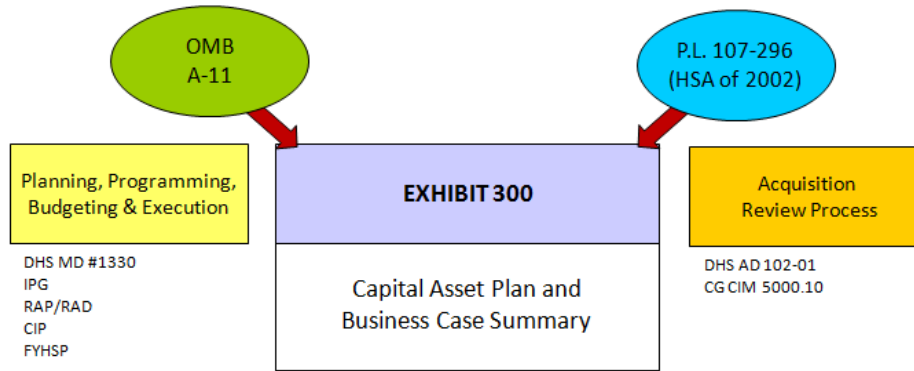


Figure 19 Capital Acquisition Planning

E. Affordability Assessment

Affordability is the degree to which the LCC of a capital asset acquisition project is consistent with the overall Coast Guard CIP and DHS FYHSP. Programming and affordability decisions at each ADE are considered and balanced against the annual budget costs and priorities of all Coast Guard acquisition programs/projects planned for a five-year period.

Each major systems acquisition enters the acquisition process at ADE-1 with a refined ROM cost estimate and funding stream projection in the MNS. The refined ROM cost estimate is successfully honed into a PLCCE during the Analyze/Select Phase of the acquisition process through cost estimation and performance trade-off analyses and feasibility studies. At the end of the Analyze/Select Phase, the PLCCE key cost parameters are entered into the APB. The key cost parameters will include at a minimum: Acquisition Cost, Operation & Maintenance (O&M) Cost, LCCE and Project Acquisition Unit Cost.

The Sponsor’s Representative is responsible for creating the Preliminary Affordability Assessment (PAA) for prospective Major Systems Acquisitions during the Project Identification Phase, then refining the PAA into the Affordability Assessment (AAS) during the Need phase. The PM is responsible for updating the AAS in later acquisition phases. The Office of Resource Management, Commandant (CG-928), shall review all Affordability Assessments and shall endorse and validate those required prior to ADE-2A/B/C and ADE-3. Commandant (CG-928) and the Office of Budget and Programs, Commandant (CG-82) each has the responsibility to review the AAS to validate the funding listed within the assessment. Commandant (CG-82) approves the AAS and

provides a recommendation to Commandant (CG-8) concerning the project’s cost as it relates to the FYHSP. The AAS includes consideration of support and personnel requirements, as well as the fiscal constraints of the organization. DHS ADA approval and authorization to enter subsequent acquisition phases will not be granted unless sufficient resources are or will be programmed to support the next phase of the acquisition project. The AAS describes the acquisition project’s programming and affordability impacts on the CIP, the FYHSP, and the annual budget cost and priorities.

Note: in preparation for ADE-1 and subsequent ADE presentations to the DHS Acquisition Review Board (or CG ARB for delegated ADA), the AAS package will include a separate memorandum from CG’s Chief Financial Officer (CFO) certifying the CFO has reviewed and validated all current, prior, and future year funding information presented in ARB materials for consistency with the current FYHSP.

The Executive Oversight Council (EOC) should be engaged to increase awareness, address issues, obtain acceptance and gain approval of the Affordability Assessment as early as possible, and no later than ADE-2.

Commandant (CG-928) is designated to develop and maintain a ‘sand chart’ that is used to visually depict the impacts of all acquisition projects within the CIP. This pictorial representation is one tool that is used to examine competing acquisition project priorities within the CIP at various fiscal year points. **Figure 20 Sand Chart**, presented below, is a sample from the GAO Cost Estimating and Assessment Guide, March 2009. Commandant (CG-928) will work with the acquisition projects and Commandant (CG-82) to also address the impacts of current and future operations and sustainment costs.

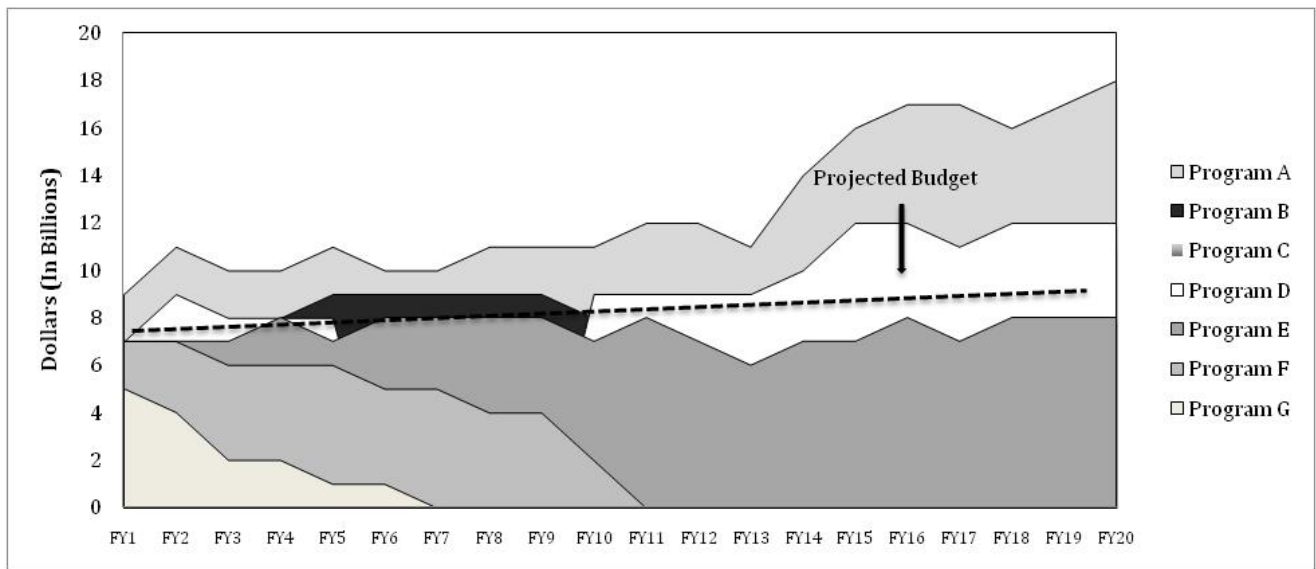


Figure 20 Sand Chart

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CHAPTER 7: REPORTS AND REVIEWS

A. Introduction

This section addresses the knowledge-based administrative processes that the PM uses to keep senior management within the Coast Guard, DHS, OMB, and Congress informed of the progress being made on major systems acquisition projects. Effective acquisition management requires efficient and timely dissemination of information to all levels of the organization to improve communications, disseminate knowledge, highlight potential problems that may require management attention, and to identify current performance.

B. Reports

One of the responsibilities of the PM is to provide various reports to senior management in the Coast Guard and DHS. The following information describes the required reports that the PM will use to carry out his/her administrative duties contained in the PM Charter. The Assistant Commandant for Acquisition SOP-9-8 for Project Performance Reporting defines the process for project performance reporting.

Comprehensive Acquisition Status Report: The CASR is a DHS report to Congress submitted with the President's Budget in February each year as required by the Consolidated Appropriations Act, 2012. DHS is also required to submit quarterly updates on any major acquisition for which there has been a new Acquisition Program Baseline, an Acquisition Decision Memorandum, or where there has been significant deviation from the prior report with respect to acquisition cost, quantity, or schedule (a significant change is considered any deviation in cost or quantity that exceeds 15 percent, or a change in schedule that exceeds six months. The CASR includes programs identified for major acquisition oversight as defined in the DHS Major Acquisition Oversight List (MAOL). DHS generates the CASR from nPRS, the Investment Management System (IMS), the Quarterly Program Accountability Reports (QPAR), and acquisition program governance records. In accordance with USM memo, Fiscal Year 2012 – Major Acquisition Oversight List, dated 12 December 2011, PMs are expected to update and maintain the information in IMS and nPRS for their projects. After the reports are generated by DHS, the CAE will have 10 days to review the reports and provide comments, feedback, and any necessary supporting documentation to revise any DHS provided program information.

Quarterly Program Accountability Report: The Quarterly Program Accountability Report (QPAR) is a DHS PARM generated project assessment using a standardized set of 15 criteria for measuring the value and risk of each acquisition project. The QPAR supports a DHS high-level analysis of a project's health and is intended to identify issues that could require further analysis or that could escalate and become matters of broader departmental concern. DHS evaluators will utilize data-pulls from the same source systems as used for CASR, confer with PARM Project Leads, conduct open source research, and draw upon their knowledge of the projects to make initial scoring recommendations for each criterion. After the reports are generated by DHS, the CAE will have 10 days to review the reports and provide comments, feedback, and any necessary supporting

documentation to revise any DHS provided program information.

C. Reviews

A knowledge-based acquisition management approach requires information at critical junctures throughout the acquisition process to help make informed decisions. Sufficient knowledge and demonstrated progress has to be presented to governance officials to obtain approval to continue to the next stage of development or the next phase of the acquisition.

Coast Guard Reviews

Executive Oversight Council: The Coast Guard Executive Oversight Council (EOC) is a Flag/SES-level forum that monitors major risks, addresses emergent issues, reviews ADE exit criteria, and provides direction to cross-directorate teams as required to support successful execution of major acquisition projects. The EOC includes key stakeholders in the acquisition process. Primary responsibilities of the EOC can be found in chapter one of this manual.

The EOC is chaired by the Coast Guard Chief Acquisition Officer; Assistant Commandant for Acquisitions (CG-9) for all major acquisition and non-major non-IT related acquisition reviews. The EOC is chaired by the Coast Guard Chief Information Officer, Commandant (CG-6) for all non-major IT related acquisition reviews. Membership is shown in **Table 11 EOC Membership**.

Table 11 EOC Membership

CG-9 (Chair)			
CG-7 (Chair for annual portfolio review)			
CG-6 (Chair for non-major IT projects)			
CG-1	CG-2	CG-4	CG-DCO-D
CG-8	CG-91	CG-92	CG-93
CG-092	CG-094	CG-095	FORCECO M

EOC Executive Secretary: Chief, Office of Acquisition Support, Commandant (CG-924), is the EOC Executive Secretary. The Executive Secretary:

- Distributes documents to EOC members for review;
- Serves as the central point of contact for all issues and documentation submitted to the CAO;
- Coordinates EOC meetings and provides administrative support for effective meeting facilitation;

- Prepares Acquisition Decision Memoranda (ADM) for decision authority signature; and
- Copies senior level decision authorities on all ADMs where decision authority has been delegated.

Coast Guard Acquisition Review Board (CG ARB): The CG ARB conducts ADE reviews of major systems acquisition projects prior to their review by DHS. The MSAM Handbook provides recommended format and content guidance for CG ARB presentations.

Annual reviews allow for review of major systems acquisition projects and facilitate the flow of information across directorates and senior management. The PM presents Annual Review briefings for CG ARB members and invited DHS personnel that provide the status of the project. Guidance on preparation for Annual Review briefings can be found in the MSAM Handbook.

NOTE: Commandant (CG-924), as the EOC Executive Secretary and CG ARB Executive Secretary, schedules ADE, annual Review, and acquisition-related topic EOC, DCMS/DCO, and CG ARB meetings.

The CG ARB:

- Analyzes project cost, schedule, technical progress, accomplishments, and future plans to determine if the project is prepared to go forward for ADA approval;
- Reviews project decision documents and select planning documentation prior to submission to the CAE; and
- Makes a recommendation to the CAE on project preparation to move to the next acquisition phase.

The CG ARB consists of three primary members shown in **Table 12 CG ARB Core Membership**. The CG ARB will include members of the EOC and may be augmented by Subject Matter Experts (SMEs) from major acquisition functional areas.

Table 12 CG ARB Core Membership

CG ARB Core Members		
VCG (CAE) ¹	DCMS ¹	DCO
EOC		

¹ CAE will chair CG ARB whenever ADA is S2, but otherwise may delegate to Commandant (DCMS) for ADE-2A/2B/2C and ADE-3.

CG ARB Executive Secretary: Chief Acquisition Support Office, Commandant (CG-924), is the CG ARB Executive Secretary. The Executive Secretary:

- Monitors project progress;

- Ensures project compliance with approved policy, process and guidance;
- Distributes documents to CG ARB members for review;
- Serves as the central point of contact for all issues and documentation submitted to the CAE;
- Coordinates CG ARB meetings and provides administrative support for effective meeting facilitation;
- Prepares Acquisition Decision Memoranda (ADM) for decision authority signature; and
- Copies senior level decision authorities on all ADMs where decision authority has been delegated.

Coast Guard Information Technology Acquisition Review (ITAR) process: ITAR is a review and approval process that is required prior to the award of any Information Technology (IT) procurement. The Coast Guard CIO (Commandant (CG-6)) must review and approve all IT procurements \$100K and above (inclusive of options); IT procurements equal to or greater than \$2.5M must be further approved by the DHS CIO. See Coast Guard and DHS Chief Information Officer (CIO) Review and Approval of Command, Control, Communications, Computers, and Information Technology (C4&IT) Acquisitions, COMDTINST 5230.77 (series). For more information: <http://cgea.uscg.mil> (accessible on the Coast Guard intranet).

Coast Guard Enterprise Architecture Board (EAB) Reviews: The Coast Guard EAB supports the DHS EAB by conducting enterprise architecture reviews of all C4IT project decision requests prior to their review by DHS. Coast Guard EAB findings and recommendations are provided to the DHS EAB for decision. For more information: <http://cgea.uscg.mil> (accessible on the Coast Guard intranet).

Coast Guard TechStat Reviews: Commandant (CG-66) performs TechStat Reviews on select IT investments based on their overall rating on the IT Dashboard. TechStat objectives are met, and in some cases exceeded, by providing DHS Enterprise Business Management Office (EBMO) with the artifacts for each completed TechStat, and periodic reports regarding the overall TechStat execution. For more information: <http://cgea.uscg.mil> (accessible on the Coast Guard intranet).

DHS Reviews

DHS EAB: The DHS EAB conducts reviews and provides recommendations to the DHS ARB pertaining to the acquisition's alignment to the Homeland Security (HLS) EA and its architecture. A Coast Guard EAB Review must be completed prior to any DHS EAB Review. It reviews all IT projects prior to DHS ARB review. The DHS EAB reviews select non-IT project elements prior to DHS ARB review based on ADA direction. The ADA in consultation with the OCPO and OCIO decides on review necessity for non-IT project elements. For more information: <http://cgea.uscg.mil> (accessible on the Coast Guard intranet).

DHS TechStat: The EBMO, within the DHS OCIO, maintains oversight of the Coast Guard's TechStat implementation. The EBMO offers training, mentoring, and tools for the coast Guard's TechStat Teams to lead their own TechStat sessions. For more information: <http://cgea.uscg.mil> (accessible on the Coast Guard intranet).

DHS ARP and Acquisition Review Boards (ARB): The DHS ARP is the formal means for Level 1 and 2 projects (unless delegated to the Coast Guard) to receive authorization to proceed from phase to phase through the acquisition life cycle. The process allows PMs to summarize progress relative to the criteria of the acquisition life cycle and provides ARBs a forum to assess progress and bring essential issues to the ADA. PMs will ensure nPRS and IMS are updated to support Decision Support Tool (DST) data pulls for ARP/ARB/ART briefing packages. The ARB provides recommendations to the ADA, along with those of the PM, regarding decisions and courses of action. **Figure 21 DHS ARP** represents the end-to-end acquisition review process. The notional timeline for the end-to-end ARP is expected to be 60 days, from the time the first Entrance Conference is held to the point at which the draft ADM is submitted to DHS Executive Correspondence Tracking (ECT) for ADA approval. Note that this timeline will vary with the size, complexity, and readiness of projects.

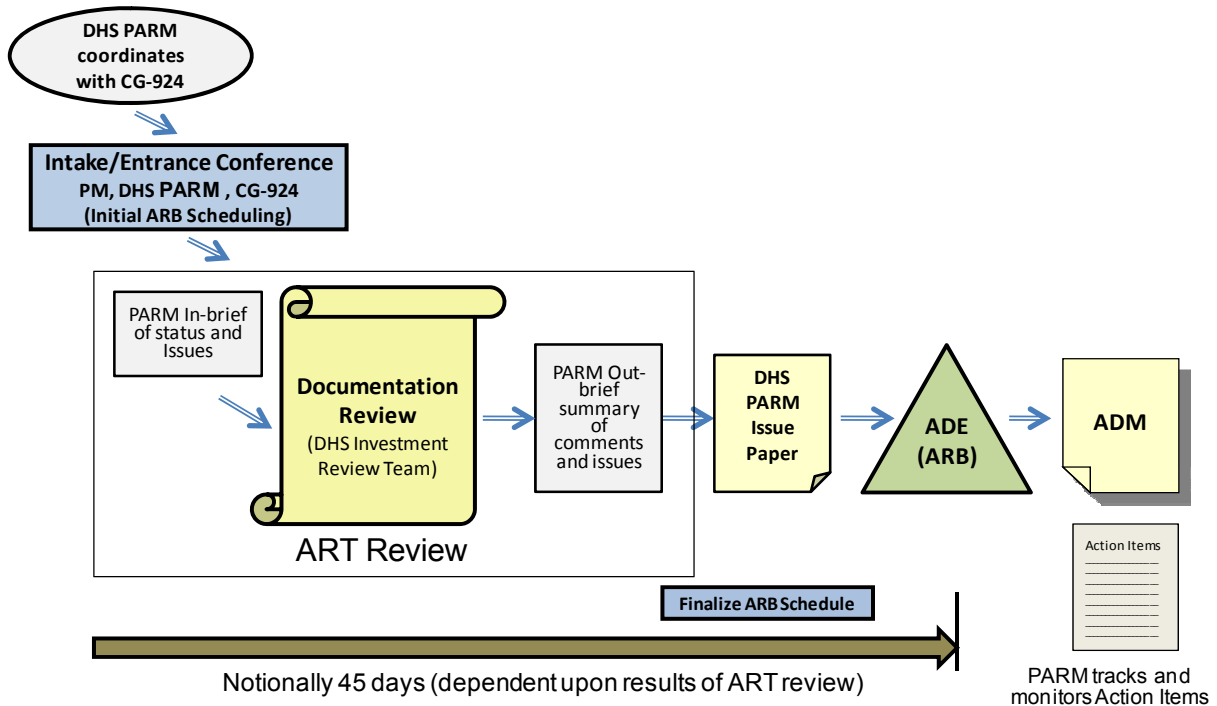


Figure 21 DHS Acquisition Review Process

1. List Project on ARB Calendar

The ARP process is initiated by a request to the PARM ARB scheduler for an ARB. The request may be initiated by either Commandant (CG-924) or by DHS PARM. This request triggers notifications to key department review activities (e.g., review teams for the MNS/ORD, APB, Systems Engineering, Logistics, Cost Analysis, Enterprise

Architecture, and Test & Evaluation) to begin preparing and assisting with the review process.

2. Define ARB Agenda: Decisions and Issues

PARM will work with the department stakeholders, Commandant (CG-924), the PM, and component oversight to identify the essential acquisition decisions as well as the key preliminary issues to assist the acquisition review team with their analysis. The draft ARB brief is prepared. An ARB entrance conference is held.

3. Conduct Acquisition Review Team (ART) Review

There are three steps to the ART review:

- ART In-brief (PM) to discuss current program status and known subject matter expert (SME) issues;
- ART documentation review and comment collection/adjudication step to assemble stakeholder inputs into a common set of issues; and
- ART Out-brief (PARM) to summarize decisions and issues and prepare the issue paper for the ARB.

4. Conduct Acquisition Review Board (ARB) Meeting

The primary focus of the ARBs will be on the topics identified in the ART issue paper. The objective of the ARB is to provide the ADA with a balanced and objective basis for decision.

5. Develop ADM

ARB results, including the decisions and associated actions or conditions are documented in an ADM. The ADM is the official ADE record. All acquisition decisions will be documented in ADMs. Commandant (CG-924) and PM will normally have an opportunity to review the draft ADM and provide input to PARM.

6. Track ADM Action Items

The ADM actions and conditions are tracked by PARM. It is the responsibility of the PM/PgM or other assigned point of contact to complete assigned actions and to provide deliverables to CG-924, who track completion and forward them to DHS PARM for closeout confirmation. Review of project action items status is part of the ARB process.

DHS Annual Portfolio Reviews: Annual Portfolio Reviews are high level briefs conducted to provide visibility into each project's health, value, risk and priority within the overall context of DHS and USCG missions.

D. Records Management and Documentation

Project offices typically generate large amounts of documentation over the life cycle of the project. It is important that project offices follow administrative and regulatory requirements to correctly create and manage documents and records. Guidance can be

found in the following:

1. Information and Life Cycle Management Manual, COMDTINST M5212.12 (series)

The Manual prescribes policies and procedures for administering the Coast Guard Records Program as it relates to the life cycle management of both paper and electronic documents/data. Effective controls over the life cycle of records maximizes the effective use of space and equipment, and provides management with more easily identifiable and retrievable records with which to conduct Coast Guard business. Effective Records Management controls assure the quality, authenticity, utility, and access to essential data/information.

The following link provides more information on records management:

<http://www.archives.gov/records-mgmt/publications/disposition-of-federal-records/chapter-1.html>

2. The Privacy Act of 1974

When the design, development, or operation of a system of records on individuals is required to accomplish an agency function, the contracting officer shall insert clause 52.224-1, Privacy Act Notification and clause 52.224-2, Privacy Act in solicitations and contracts. Additionally, contractual documentation shall contain language stipulating identification/safeguarding of Personally Identifiable Information (PII) and Sensitive PII such that privacy incidents are prevented through the system's life cycle, including final disposal.

3. Section 508 Compliance

Section 508 was originally added to the Rehabilitation Act in 1986, establishing non-binding guidelines for technology accessibility. In 1998, Section 508 was amended to require that Electronic and Information Technology (EIT) developed, procured, maintained, or used by Federal agencies be assessable to people with disabilities. Federal agencies must now use these standards in all their EIT acquisitions. Section 508 Program Management Office & Electronic and Information Technology Accessibility, DHS Management Directive MD Number 4010.2 (series) and Coast Guard Implementation of the Rehabilitation Act, Section 508, COMDTINST 5230.60 (series), have been promulgated to establish policies and procedures for implementing Section 508 of the Rehabilitation Act.

Section 508 Program Management Office & Electronic and Information Technology Accessibility, DHS Management Directive MD 4010.2 (series), states in Section VI A, paragraph 2, "When developing or maintaining EIT, DHS Components shall endure that functional requirements are identified, applicable functional performance criteria and technical standards of Section 508 are selected, and appropriate documentation is produced." Section 508 Program Management Office & Electronic and Information Technology Accessibility, DHS Management Directive, MD 4010.2 (series), Section VI B addresses procedures that must be followed.

DHS developed a tool to assist users in including the correct Section 508 requirements verbiage. DHS Accessibility Requirements Tool (DART) is a worksheet that allows users to select the appropriate boxes and the results provide the appropriate words, based

on the type of EIT that can be cut and pasted into the SOW and/or Task Order. DART can be found using the following link:

http://dhsconnect.dhs.gov/org/comp/mgmt/cio/oast/Documents/DART1_5_2_strict.html

CHAPTER 8: DOCUMENT REVIEW AND APPROVAL PROCESS

A. Review and Approval Levels

For systems acquisition documents that require CG and/or DHS review/approval, the document originator is expected to use their working/ higher level IPTs (and other relevant teams or groups) to involve key stakeholders during the document drafting, development and review efforts. Many key stakeholders possess important expertise/ information needed to properly prepare these documents. This support will also help ensure stakeholder and cross-stakeholder requirements are properly captured and addressed. All involved stakeholders are expected to ensure their leaders are fully informed and timely aware of the results of these preparations, in order to efficiently engage before and during the formal review and approval process.

Most draft acquisition documents or plans must undergo a Matrix-level concurrent clearance review. It is not necessary that reports, reviews, or assessments go through concurrent clearance. Any questions or concerns should be resolved with assistance from Commandant (CG-924). If the Matrix-level (typically O-6/GS-15) review results in an irresolvable non-concur, or a significant change to the document, an EOC-level concurrent clearance review will be required. The following three tables (**Table 13 Acquisition Documents Requiring DHS Approval, Table 14 Acquisition Documents Requiring Coast Guard Approval and Table 15 Acquisition Documents Not Requiring Coast Guard Approval**) provide the project documentation approval authorities.

Table 13 Acquisition Documents Requiring DHS Approval

Document	Prepared by	Coast Guard Approval Authority	DHS Approval Authority
Acquisition Plan ¹	PM	HCA	OCPO
Mission Need Statement	Sponsor's Rep.	CAE	ADA
Capability Development Plan	CG-93 PgM	CG-9	ADA
Operational Requirements Document	Sponsor's Rep.	CAE	ADA
Project Life Cycle Cost Estimate	PM	CG-9	PARM
Acquisition Program Baseline	PM	CAE	ADA
Project SELC Tailoring Plan	PM	CG-93	ADA
Integrated Logistics Support Plan	PM	DCMS	ADA
Test and Evaluation Master Plan	PM	CG-9	DOT&E
Operational Test Plan	OTA	Sponsor	DOT&E

¹ The HCA is approval authority for AP's < \$300M procurement cost. DHS OCPO approves AP's ≥ \$300M procurement cost.

Table 14 Acquisition Documents Requiring Coast Guard Approval

Document	Prepared by	DHS Review Required?	Coast Guard Approval Authority
Mission Analysis Report	DCO-81	N/A	DCO
Alternatives Analysis Study Plan	Study Director	Yes ¹	CG-9
Alternative Analysis Report	PM/Study Director	N/A	CAE
Concept of Operations	Sponsor's Rep.	N/A	Sponsor
Project Management Plan	PM	N/A	CG-9
Preliminary Operational Requirements Document ²	Sponsor's Rep.	N/A	CG-9 (accepts)
Affordability Assessment	Sponsor's Rep./PM	N/A	CG-82
Configuration Management Plan	PM	N/A	CG-93
Independent Logistics Assessment	CG-441	N/A	CG-4
Logistics Readiness Report	CG-441	N/A	CG-4
Risk Management Plan	PM	N/A	CG-93
Deployment Plan	Sponsor's Rep.	N/A	Sponsor
Project Transition Plan	PM	N/A	CG-93
Post Implementation Review	Sponsor's Rep.	N/A	Sponsor

¹ Commandant (CG-924) will provide a read-ahead copy of the Study Plan and an invitation to attend to DHS PARM 15 days prior to the SPR.

² P-ORDs are accepted, not approved, by Commandant (CG-9).

Table 15 Acquisition Documents Not Requiring Coast Guard Approval

Document	Prepared by
Exhibit 300 (initial)	Sponsor's Rep.
Exhibit 300 (post-ADE-1)	PM
Operational Test Report	OTA

B. Concurrent Clearance

Purpose: The purpose of a concurrent clearance review is to communicate important

project information to key stakeholders in order to solicit their comments and ultimately, their concurrence prior to submitting the document for approval. The document originator should use their relevant IPTs, working groups and other forums to involve key stakeholders during the initial development and drafting of documents. This support will help ensure stakeholder and cross-stakeholder requirements are properly captured and addressed before the formal concurrent clearance process. Note that effective use of IPTs and Matrix teams can ease the concurrent clearance review process, but cannot supplant it.

Concurrent clearance review takes place in two parts; at the Matrix-level and subsequently at the EOC-level (if needed). A Matrix-level review is conducted across the matrix and applicable stakeholders. This review provides the review staff with the opportunity to ensure their program responsibilities are addressed.

An EOC-level review is required for any document or plan in which there is a critical or substantive comment that cannot be adjudicated successfully between the originating office and the commenting office during the Matrix-level concurrent clearance review. If Matrix-level concurrent clearance review comments have been properly adjudicated, then an EOC-level concurrent clearance review may be waived by Commandant (CG-924), the EOC Executive Secretary. The PM, or document originator, can request a waiver of the EOC concurrent clearance review process with a memo requesting the waiver in the document package.

NOTE: Successful adjudication is accomplished when the originating office and the commenting office are in agreement for the disposition of the critical and substantive comments that were provided on the document.

Matrix-level Concurrent Clearance Review

For the Matrix-level concurrent clearance review process, **Figure 22 Concurrent Clearance Review Matrix** lists the documents that are required to go through a concurrent clearance review and the offices to which prepared documents are distributed for review and comment, including DHS. Where multiple offices within a Directorate are listed, the project should include each office having direct involvement in the project and each office that establishes policy concerning the prepared document. Example: An ILSP should go to the engineering office(s) supporting the project and the logistics policy office, Commandant (CG-44).

	Sponsor/Representative	CG-1B3 ⁵	CG-2EA ^{1,3}	CG-4EA ¹	CG-5PIR EA ¹	CG-6EA ¹	CG-7EA ¹	CG-771	CG-8EA ¹	CG-0949	CG-924	CG-926	CG-928	CG-93AL	PM / PGM / PEO	FORCECOM EA ¹	Operational Test Agent	DHS ²
MNS ⁴	O	C	C	C	C	C	C	C	C	I	C	C		C	C		C	
CONOPS	O	C	C	C	C	C	C	C	C	I	C	C		C	C	C		
CDP	C			C	C	C	C		I	C	C	C		O			C	
ORD	O	C	C	C	C	C	C	C	C	I	C	C		C	C	C	C	
PMP		C		C		C	C		C	I	C	C	C	O				
RMP		C		C		C	C		C		C			O				
TEMP	C	C	C	C		C	C	C	C	I	C	C		O	C	C	C	
ILSP	C	C	C	C		C	C	C	C	I	C			C	O	C	C	
CMP				C		C	C				C		C	O				
PSTP		C		C		C	C	C			C	C		O			C	
DP	O	C		C		C	C	C	C		C			C	C			
PTP	C	C		C		C	C		C	I	C			C	O	C		
DT Plan	C	C	C	C			C	C			C	C		O	C	C		

Concurrent Clearance Matrix

O - document originator C - comments on document I - provide document for information

Notes:

1. Executive Assistant (EA) distributes and coordinates responses from the appropriate offices.
2. Send to parm@hq.dhs.gov. DHS comments will be returned directly to the originator.
3. Review needed if project involves intelligence community.
4. Upon Sponsor's signature, document is considered the Preliminary MNS.
5. CG-1B3 will coordinate responses for all CG-1 offices.

Figure 22 Concurrent Clearance Review Matrix

A completely prepared draft document is distributed for Matrix-level concurrent clearance review along with a concurrent clearance form (CG-4590) that provides instructions and a due date to the Matrix-level reviewers.

Figure 23 Concurrent Clearance Review Process is a flow diagram of the concurrent clearance review process. The following is a step by step explanation of the process:

- Step 1:** Draft the document. The document originator (identified in **Table 13 Acquisition Documents Requiring DHS Approval** and **Table 14 Acquisition Documents Requiring Coast Guard Approval**) drafts the document.
- Step 2:** Submit the document for Matrix-level concurrent clearance review. Submit concurrently to all appropriate offices by email. Allow three calendar weeks for commenting offices to review and provide comments. The following actions apply:
- a. Fill out the Concurrent Clearance, Form CG-4590 (see **Figure 24 Concurrent Clearance, Form CG-4590**) in accordance with instructions in **Table 16 Matrix-Level Concurrent Clearance, Form CG-4590, Instructions**.
 - b. Ensure the offices listed in **Figure 22 Concurrent Clearance Matrix** for the prepared document are listed in the form.

NOTE: DHS is included in the concurrent clearance review process for all documents DHS approves.

- c. Include the standard comment matrix documenting comments provided by respondents at this link <https://cgportal.uscg.mil/CTL/WGXVLW> (Commandant (CG-9) Comment Matrix).
- d. Once completed, provide the prepared document, the signed Concurrent Clearance, Form CG-4590 (scanned for inclusion in the email), and the Comment Matrix document to each office listed in the form.

Step 3: Originator receives and adjudicates comments and revises the document. Comments are to be adjudicated with the offices submitting them. Adjudication means Clearing Officer/Office and the document originator understand what changes the originator has/will make in response to the comments, and should reflect consensus on those changes from both parties. The Clearing Officer/Office is to provide the originator's office a statement to include in the concurrent clearance package that all of their critical and substantive comments have been appropriately adjudicated. Use the standard Commandant (CG-9) Comment Matrix (found at: <https://cgportal.uscg.mil/CTL/WGXVLW>) to consolidate and document the comments and disposition.

NOTE: If the concurrent clearance process (comment solicitation through adjudication reviews) appears likely to consume more than ten calendar weeks, Commandant (CG-924) shall schedule a status briefing to the EOC. If an office non-concurs and that office and the originator cannot come to an agreement within four calendar weeks after receipt of the non-concurrence, the originator will work with Commandant (CG-924) to schedule the EOC-level Concurrent Clearance review.

Step 4: Submit the document package to Commandant (CG-924). Build a Concurrent Clearance package per **Table 17 Concurrent Clearance Review Package Contents**, and **Figure 25 EOC Concurrent Clearance Package**. If there are no outstanding critical or substantive disagreements remaining for the comments that were submitted, then include in the concurrent clearance review package a request for a waiver from EOC Concurrent Clearance process. The waiver request should be submitted to Commandant (CG-924), EOC Executive Secretary.

Steps 5-6: Commandant (CG-924) reviews the package for proper adjudication within one calendar week. If comments are properly adjudicated proceed to Step 8.

NOTE: Commandant (CG-93AL) (ILSP & CMP), Commandant (CG-926) (TEMP), Commandant (CG-928) (PLCCE), and Commandant (CG-771) (MNS/ORD/DP) are responsible for verifying proper adjudication in their functional areas.

Step 7: If comments have not been properly adjudicated, return to Step 3.

Step 8: Commandant (CG-924) approves EOC-level Concurrent Clearance Waiver.

Step 9: Commandant (CG-924) returns Package to the document's originating office with approved waiver request, and informs EOC Chair/EOC of adjudication.

Step 10: Document originator routes the document for signature approval or endorsement.

NOTE: If the sequential clearance endorsement and/or approval process has not cleared the Assistant Commandant level within four calendar weeks, Commandant (CG-924) shall schedule a status brief to the EOC. When the document requires CG ARB level endorsements and/or approval (DCO, DCMS, VCG), those should be obtained within 3 calendar weeks.

Step 11: Document is approved within the Coast Guard. For documents that require DHS approval, return the Coast Guard approved document to Commandant (CG-924) for routing to DHS.

NOTE: The originator's office (or CG-924) is responsible for uploading approved acquisition documents to the Document Management System (DMS).

EOC-level Concurrent Clearance Review

Steps 6-7: If there are irresolvable critical or significant comment(s) on the document, then the document must go through an EOC-level Concurrent Clearance Review.

- **Steps A and B:** Commandant (CG-924) will initiate the EOC-level Concurrent Clearance Review process by distributing the concurrent clearance review package to the EOC members. Comments from the EOC-level Concurrent Clearance Review are provided to the document originator. The document originator is responsible for tracking the status of the package and receipt of comments
- **Step C:** The document originator receives and adjudicates comments.
- **Step D and E:** Submit concurrent clearance review package (**Figure 25 EOC Concurrent Clearance Package**) to Commandant (CG-924) for validation that proper adjudication of the comments has occurred
 - If properly adjudicated, proceed to Step 9
 - If not properly adjudicated, return to Step C

The EOC Executive Secretary (CG-924) will establish the EOC-level concurrent clearance review due date based on the document's time sensitivity and other documents out for EOC-level concurrent clearance.

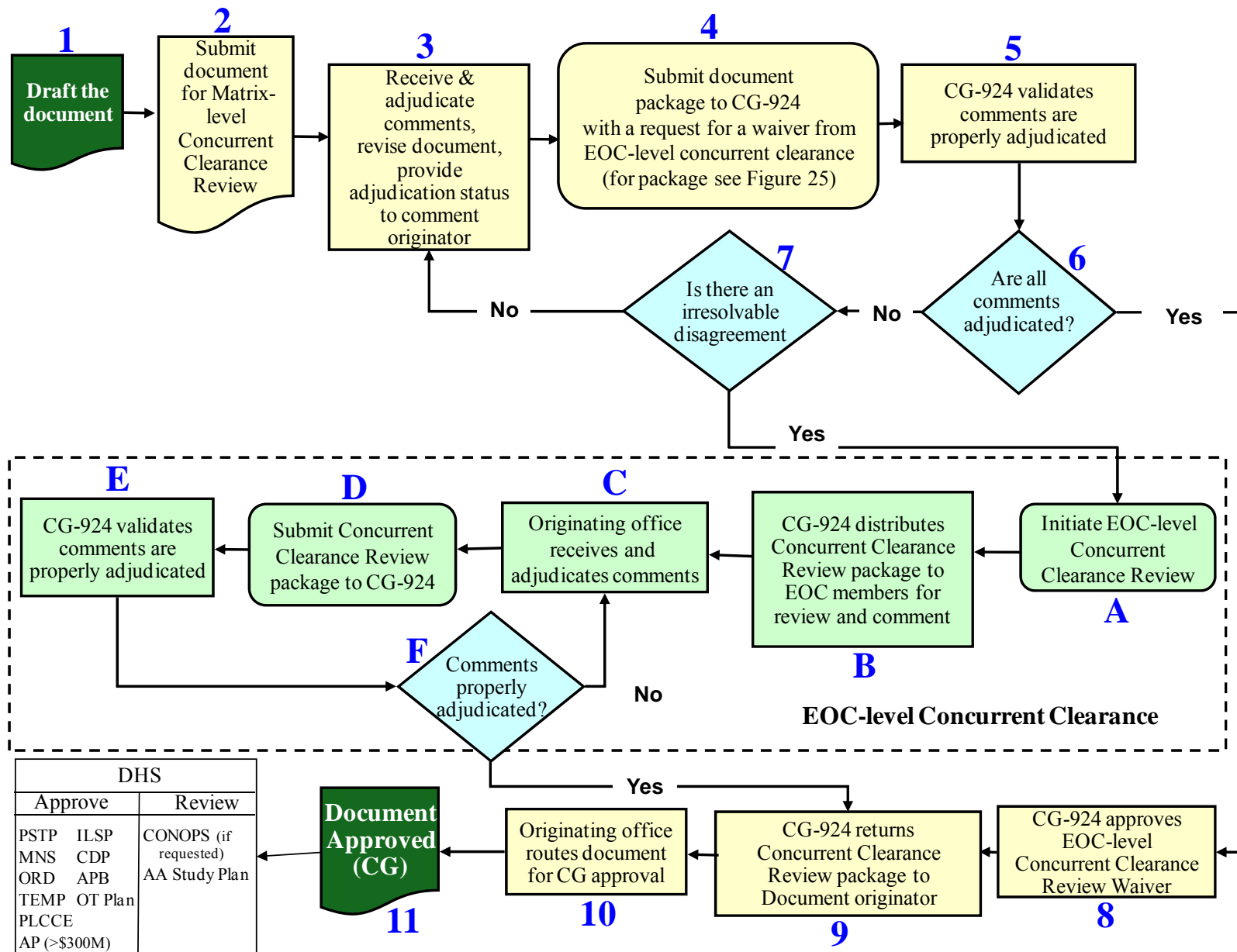


Figure 23 Concurrent Clearance Review Process

U.S. DEPARTMENT OF HOMELAND SECURITY U.S. COAST GUARD CG-4590 (Rev 06-04)		CONCURRENT CLEARANCE		TO (Symbol and Station)	
IDENTITY OF MATERIAL				RETURN TO (Symbol and Station)	
EXPLANATION/REMARKS/DIGEST					
CLEARANCE COPIES ROUTED TO				DEADLINE DATE FOR RETURN TO ORIGINATOR	
ORIGINATING OFFICE/DIVISION CLEARANCE (Name, Signature)			DATE		
CLEARING OFFICER(S) TITLE, ACTION AND COMMENTS, IF ANY (May be continued on another sheet)				NON CON- CUR	MEMO ATTACHED
				CON- CUR	CON- CUR
RETURN TO ORIGINATOR'S CONTACT	NAME	ROOM	PHONE		
				Reset	

Figure 24 Concurrent Clearance, Form CG-4590

Instructions for filling out the Concurrent Clearance, Form CG-4590, are provided in **Table 16 Matrix-Level Concurrent Clearance, Form CG-4590, Instructions**.

Table 16 Matrix-Level Concurrent Clearance, Form CG-4590, Instructions

Concurrent Clearance. Form CG-4590 Item	Information Required
TO	"DISTRIBUTION"
IDENTITY OF MATERIAL	Name of document being cleared
RETURN TO	Routing symbol of PM or Sponsor as appropriate
EXPLANATION/REMARKS/DIGEST	Purpose of concurrent clearance
CLEARANCE COPIES ROUTED TO	Matrix-level team members plus routing symbols identified in Figure 22 ... Note: If too long for space use "CLEARING OFFICER(S)..." block and state "See Distribution List below" and put "DISTRIBUTION:" at top of list in that block
ORIGINATING OFFICE/DIVISION CLEARANCE	PM or Sponsor or designee's typed name, and signature
DATE	Date signed
DEADLINE DATE FOR RETURN TO ORIGINATOR	Date for comments to be returned to originator's contact, usually two weeks
CLEARING OFFICER(S) TITLE, ACTION AND COMMENTS, IF ANY	Leave blank unless used for Distribution List.
RETURN TO ORIGINATOR'S CONTACT – NAME	Name and routing symbol of person to return comments to
ROOM	Room number of Originator's Contact
PHONE	Phone number of Originator's Contact

EOC-Level Concurrent Clearance Review

The requirement for all documents to go through the EOC-level concurrent clearance review is the same, except if the Matrix-level review resolves all critical and substantive comments, the PM or document originator can request a waiver from the EOC-level concurrent clearance review from the EOC Executive Secretary, Commandant (CG-924). The PM (or Sponsor's Representative as appropriate) will provide an adjudicated document package in a blue-pocketed file folder (see **Table 17 Concurrent Clearance Review Package Contents** and **Figure 25 EOC Concurrent Clearance Package**) to the EOC Executive Secretary to initiate a EOC-level concurrent clearance review (or waiver request).

If all of the critical and substantive comments are adjudicated resulting in no outstanding issues, then the PM should include a memo in the document package requesting a waiver of the EOC-level concurrent clearance review requirement. Commandant (CG-924) will validate that all comments have been appropriately adjudicated. Commandant (CG-924)

will normally process the waiver request within one calendar week.

Table 17 Concurrent Clearance Review Package Contents

Left Side of Folder (Back to Front)	Right Side of Folder (Back to Front)
Copy of draft document circulated for matrix level concurrent clearance review	Revised draft document
Copy of each response received from reviewing activities	Memo from PM to EOC Executive Secretary, Commandant (CG-924) requesting and justifying waiver of EOC-level concurrent clearance requirements
Synopsis of all comments received and the adjudicated response to each	
Copy of each statement by reviewing activities that all their critical comments have been appropriately adjudicated. (Does not need to be formal memo)	
Original Concurrent Clearance, Form CG-4590 sent to the matrix with bottom portion filled out to show which activities did and did not respond; which activities provided comments; and which activity's concur or non-concur with the document	

Figure 25 EOC Concurrent Clearance Package provides a pictorial of the contents of the Concurrent Clearance Review Package.

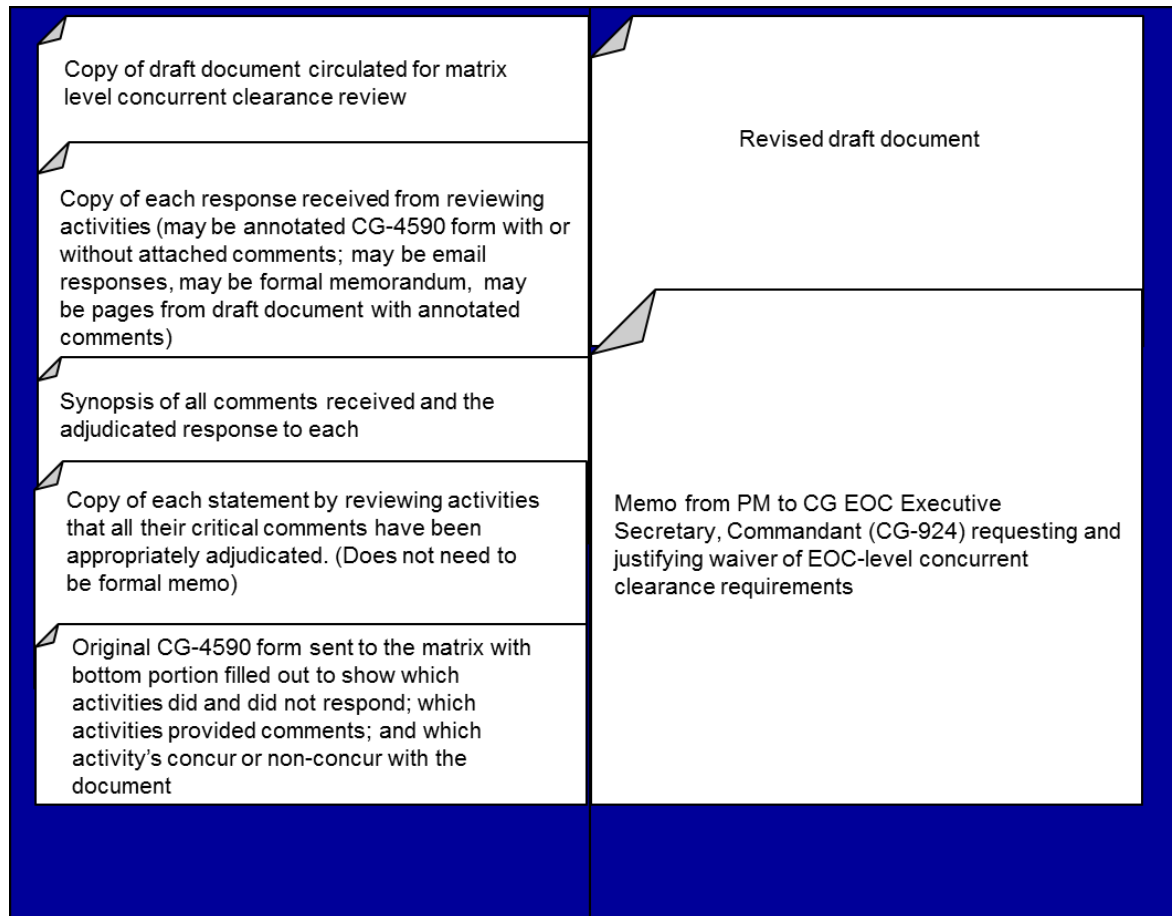


Figure 25 EOC Concurrent Clearance Package

C. Routing Documents for Signature

For documents that require approval/signature, the contents of the package to be routed for signature is the same as shown in **Table 17 Concurrent Clearance Review Package Contents, and Figure 25 EOC Concurrent Clearance Package** with the request for waiver of an EOC-level concurrent clearance review in the right side of the folder on top of the draft document. The package will be reviewed by Commandant (CG-924), if EOC-level concurrent clearance review is waived, the package is returned to the originator for routing to obtain any/all endorsements and approval signatures. The originating office will retain copies of the Concurrent Clearance package with all adjudicative comments on file for future reference.

Concurrent and Sequential Signature Endorsement and/or Approval

The originator of each document is responsible for routing and tracking of the document as it is routed for signature approval or endorsement. Where appropriate, the document can be routed concurrently to several offices to streamline the approval process. In the templates shown in the MSAM Handbook, those directorates/offices that are recommended for concurrent document approval routing are highlighted in light grey on the title/signature pages. Those not highlighted should be routed in sequence for signature. Remove

highlighting prior to routing final copy for signature. For documents that require DHS approval, return the Coast Guard approved document to Commandant (CG-924) for routing to DHS (include a summary of adjudicated DHS comments from the concurrent clearance review).

NOTE: If the sequential clearance endorsement and/or approval process has not cleared the Assistant Commandant level within four calendar weeks, Commandant (CG-924) shall schedule a status brief to the EOC. When the document requires CG ARB level endorsements and/or approval (DCO, DCMS, VCG), those should be obtained within 3 calendar weeks.

Streamlining (Best Practice)

The following provides the originator with an example of how a document can be routed for both sequential and concurrent signature:

1. The originator prepares the routing package for sequential signature as described above.
2. The originator will brief the EOC that the document will be routed for EOC concurrent signature and will provide updated status two weeks later or during the next EOC brief.
3. When the originator has received the copy with the first set of sequential signatures (those signatures in sequential order up to the next set of signatures being concurrent authorities) the originator shall e-mail to all concurrent signature authorities as highlighted in grey on the associated template for that document's signature page. The routing package is the same as 1 above, except sent electronically (include the title/signature page showing signatures to this point). The e-mail shall include the text, "If this document is signed, request a scanned copy be returned to the originator."
4. The originator will collect the concurrent signatures and make a notation "ENDORSEMENT ATTACHED" and add the date signed on the original title/signature page that displays the prior sequential signatures.
5. Once all of the sequential and concurrent signatures have been received, the originator forwards the acquisition document package to the final set of authorities for sequential signatures. The package is the same as per 1 above. However, the only difference is the originator should place the title/signature pages (containing the concurrent signatures) behind the original title/signature page.

Documents that require DHS approval should be submitted to DHS for approval no later than 45 days* prior to the DHS ADE/ARB. For documents that require DHS approval, e-mail the Commandant (CG-924) Project Liaison the Adobe Portable Document Format (PDF) file of the document (Microsoft Word file converted to PDF), with scanned in signature page(s) attached (include a summary of adjudicated DHS comments from the concurrent clearance review). Commandant (CG-924) will prepare a transmittal memo and send/track the document for DHS approval/validation. Upon receipt of approved documents, the originator (or CG-924) shall upload a copy of the final signed document into the Document Management System (DMS) and provide an e-copy to Commandant

(CG-924).

***Note:** Original PLCCE for ADE-2 is required 90 days prior to ADE.

D. Documentation Updates and Revisions

As the project progresses through the various acquisition phases, project management documents may require revisions to update the management strategy and acquisition planning for the remaining phases. At a minimum, they shall be reviewed and updated if required at each subsequent DHS ADE. For documents that require revalidation, the PM or Sponsors Representative, as appropriate, should document the revalidation in a memorandum to file 45 days prior to the ADE, and show the revalidation in the ADE brief. In addition, each document shall be updated if significant changes in project execution plans, schedule, funding or resource requirements occur. The approval process for major updates shall be the same as the original document review and approval process.

Version Control: Documents are to comply with the following version control:

- If the document has not yet been approved, it should use a numbering scheme beginning with “zero”, such as Version 0.1;
- Version numbers for documents submitted for approval will start with a whole number, such as Version 1.0;
- Minor updates (e.g., wording changes) should increment in tenths, as in Version 1.1;
- Major changes in direction or composition should increment in whole numbers higher than the previous approved and published version, as in Version 2.0;
- The document’s version number should be placed in the lower left-hand side and the date should be placed in the lower right-hand side of the document footer; and
- A Version Summary (with Table of Changes) will be included following the document’s Executive Summary. The Table of Changes should reflect the version number and date discussed and should be as shown below.

Version	Change	Effective Date
Version 1.0	Initial Version	15 Oct 09

Schedule Date Format within Documents and Plans: When referencing schedules in any of these documents, the date formats in **Table 18 Date Formats** should be used.

Table 18 Date Formats

Key Event To Occur:	Date Format Convention:
Past History	Use Month and Year, e.g., 10/09
Future Date	Use Quarter and Fiscal Year, e.g., 1QFY11

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ACRONYMS

AA	Alternatives Analysis
AAS	Affordability Assessment
AC&I	Acquisition Construction and Improvement
AC	Actual Cost
ADA	Acquisition Decision Authority
ADE	Acquisition Decision Event
ADE-0	Acquisition Decision Event 0: Project Identification
ADE-1	Acquisition Decision Event 1: Validation of Need
ADE-2A	Acquisition Decision Event 2A: Approve the Acquisition
ADE-2B	Acquisition Decision Event 2B: Approve Acquisition Type
ADE-2C	Acquisition Decision Event 2C: Approve Low Rate Initial Production
ADE-3	Acquisition Decision Event 3: Approve Production & Deployment
ADE-4	Acquisition Decision Event 4 (USCG Only): Approve Transition to Support
ADM	Acquisition Decision Memorandum
AEL	Allowance Equipage List
AIS	Automated Information System
ALC	Aviation Logistics Center
A _O	Operational Availability
AP	Acquisition Plan
APB	Acquisition Project Baseline/Acquisition Program Baseline
APL	Allowance Parts List
APMS	Acquisition Project Management System
APO	Asset Project Office
ARB	Acquisition Review Board
ARP	Acquisition Review Process
ART	Acquisition Review Team
A/S	Analyze Select
AStr	Acquisition Strategy

AT	Acceptance Trial
AT&L	Acquisition Technology and Logistics
AWCB	Acquisition Workforce Certification Board
BAC	Budget At Completion
BUR	Bottoms Up Review
C4IT	Command, Control, Communications, Computers and Information Technology
C4ISR	Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance
CAE	Component Acquisition Executive
CAO	Chief Acquisition Officer
CAQO	Chief Acquisition Officer (DHS)
CANDI	Commercially Available Non-Developmental Item
CASR	Comprehensive Acquisition Status Report
CBA	Cost-Benefit Analysis
CBNRE	Chemical, Biological, Nuclear, Radiation and High-Yield Explosives
CCA	Clinger Cohen Act
CCB	Configuration Control Board
CDR	Critical Design Review
CEBD	Cost Estimating Baseline Document
CFR	Code of Federal Regulations
CDP	Capability Development Plan
CFO	Chief Financial Officer
CG ARB	Coast Guard Acquisition Review Board
CICA	Competition in Contracting Act
CIM	Commandant Instruction Manual
CIO	Chief Information Officer
CIP	Capital Investment Plan
CISO	Chief Information Security Officer
CM	Configuration Management
CMP	Configuration Management Plan

COE	Common Operating Environment
COI	Critical Operational Issue
CONOPS	Concept of Operations
CPI	Cost Performance Index
CPIC	Capital Planning & Investment Control
CPO	Chief Procurement Officer
CV	Cost Variance
D-Level	Depot-Level
DAA	Designated Accreditation Authority
DART	DHS Accessibility Requirements Tool
DAU	Defense Acquisition University
DCMA	Defense Contract Management Agency
DCO	Deputy Commandant for Operations
DHS	Department of Homeland Security
DMSMS	Diminishing Manufacturing Sources and Materiel Shortages
DOD (AT&L)	Department of Defense, Acquisition Technology and Logistics
DOD	Department of Defense
DOT&E	Director Operational Test and Evaluation
DOTMLPF+R/G/S	Doctrine, Organization, Training, Materiel, Leadership, Personnel, and Facilities plus Regulations/Grants/Standards
DP	Deployment Plan
DRM	Data Reference Model
DST	Decision Support Tool
DT	Developmental Test
DTP	Developmental Test Plan
DTRR	Developmental Test Readiness Review
DT&E	Developmental Test and Evaluation
DUSM	Deputy Undersecretary for Management (DHS)
EA	Enterprise Architecture
EAB	Enterprise Architecture Board

EAC	Estimate At Completion
EC	Engineering Change
ECP	Engineering Change Proposal
EIT	Electronic and Information Technology
EOA	Early Operational Assessment
EOC	Executive Oversight Council
ES	Executive Summary
EV	Earned Value
EVM	Earned Value Management
EVMS	Earned Value Management System
FAR	Federal Acquisition Regulations
FASA	Federal Acquisition Streamlining Act
FAT	Factory Acceptance Test
FCA	Functional Configuration Audit
FOC	Full Operational Capability
FoS	Family of Systems
FOT&E	Follow-On Test and Evaluation
FY	Fiscal Year
FYHSP	Future Years Homeland Security Program
HCA	Head of Contracting Activity
HFE	Human Factors Engineering
HFEP	Human Factors Engineering Plan
HQ	Headquarters
HSAM	Homeland Security Acquisition Manual
HSI	Human Systems Integration
IBR	Integrated Baseline Review
ICE	Independent Cost Estimate
ILA	Independent Logistics Assessment
ILS	Integrated Logistics Support

ILSMT	Integrated Logistics Support Management Team
ILSP	Integrated Logistics Support Plan
IMS	Integrated Master Schedule
IMS	Investment Management System (a DHS tool)
IOC	Initial Operational Capability
IOT&E	Initial Operational Test and Evaluation
IPG	Integrated Planning Guidance
IPT	Integrated Product/Project Team
IRR	Integration Readiness Review
ISA	Interconnection Security Agreement
ISSO	Information Systems Security Officer
IT	Information Technology
ITAR	Information Technology Acquisition Review
KPP	Key Performance Parameter
LCC	Life Cycle Cost
LCCE	Life Cycle Cost Estimate
LDM	Logical Data Model
LRIP	Low Rate Initial Production
LRR	Logistics Readiness Review
M&S	Modeling and Simulation
MA	Mission Analysis
MAR	Mission Analysis Report
MAT	Maintenance Augmentation Team
MD	Management Directive (DHS)
MNS	Mission Need Statement
MOA	Memorandum of Agreement
MOE	Measures of Effectiveness
MOP	Measures of Performance
MOU	Memorandum of Understanding

MP	Maintenance Plan
MPR	Monthly Project Report
MPT	Manpower, Personnel and Training
MRA	Manpower Requirements Analysis
MSAM	Major Systems Acquisition Manual
MSG	Maintenance Support Guide
MSO	Maintenance Support Outline
MTBF	Mean Time Between Failure
MTTR	Mean Time to Repair
NARA	National Agency for Records Administration
NEPA	National Environmental Policy Act
NDI	Non-Developmental Item
NOR	Notice of Revision
nPRS	Next Generation Periodic Reporting System
O&S	Operations and Support
OA	Operational Analysis
O-Level	Operational Level
OCIO	Office of the Chief Information Officer
OCFO	Office of the Chief Financial Officer
OCPO	Office of the Chief Procurement Officer
OE	Operating Expense
OFCO	Operating Facility Change Order
OGA	Other Government Agency
OJT	On-the-Job Training
O&M	Operations and Maintenance
OMB	Office of Management and Budget
ORD	Operational Requirements Document
ORR	Operational Readiness Review
OT	Operational Test

OTA	Operational Test Agency/Agent
OT&E	Operational Test and Evaluation
OTRR	Operational Test Readiness Review
OV	Operational View
P/D	Produce/Deploy
PA&E	Program Analysis and Evaluation
PAUC	Project Acquisition Unit Cost
PBG	Program Budget Guidance
PBL	Performance Based Logistics
PCA	Physical Configuration Audit
PDR	Preliminary Design Review
PEO	Program Executive Officer
PgM	Program Manager
PHS&T	Packaging, Handling, Storage, and Transportation
PII	Personally Identifiable Information
PIR	Post Implementation Reviews
PLCCE	Project Life Cycle Cost Estimate
PM	Project Manager
PMDS	Project Management Data Sheet
PMO	Program Management Office
PMP	Project Management Plan
POC	Point of Contact
POE	Projected Operational Environment
P-ORD	Preliminary Operational Requirements Document
PPBE	Planning, Programming, Budgeting and Execution
PPR	Project Planning Review
PRO	Project Resident Office
PRR	Production Readiness Review
PRTL	Project Responsibility Transfer Letter

PS&T	Performance Support and Training
PSSA	Preliminary Spectrum Supportability Assessment
PSTP	Project SELC Tailoring Plan
PTP	Project Transition Plan
PTR	Project Transition Review
PV	Planned Value
PWBS	Project Work Breakdown Structure
Q	Quarter
QPAR	Quarterly Program Accountability Report
QPMR	Quarterly Project Management Report
R&D	Research and Development
RAD	Resource Allocation Decision
RAP	Resource Allocation Plan
RDT&E	Research, Development, Test & Evaluation
RFI	Request for Information
RFP	Request For Proposal
RMA	Reliability, Maintainability and Availability
RMP	Risk Management Plan
ROC	Required Operational Capability
ROI	Return on Investment
ROM	Rough Order of Magnitude
RP	Resource Proposal
RS	Revision Summary
RTM	Requirements Traceability Matrix
S2	Deputy Secretary of Homeland Security
SAR	Search and Rescue
SCN	Specification Change Notice
SDLC	System Development Life Cycle
SDR	System Definition Review

SE	Systems Engineering
SELC	System Engineering Life Cycle
SER	Solutions Engineering Review
SFLC	Surface Forces Logistics Center
SLA	Security Level Agreements
SME	Subject Matter Expert
SOP	Standard Operating Procedures
SoS	System of Systems
SOW	Statement of Work
SOW/PS	Statement of Work/Performance Specification
SPI	Schedule Performance Index
SPR	Study Plan Review
SPRDE	System Planning, Research, Development and Engineering
SRR	System Requirements Review
SRTM	Security Requirements Traceability Matrix
SSMP	System Safety Management Plan
SS/OH	System Safety & Occupational Health
SSP	System Security Plan
ST&E	Security Test and Evaluation
SV	Schedule Variance
TA	Technical Authority
TAC	Total Acquisition Cost
T&E	Test and Evaluation
TEMP	Test and Evaluation Master Plan
TMOT	Test Management Oversight Team
TRM	Technical Reference Model
USM	Under Secretary for Management (DHS)
VV&A	Verification, Validation and Accreditation
WBS	Work Breakdown Structure

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LIST OF CHANGES

Significant Changes			
	Chapter/Section	Description of Change	Reason for Change
Chapter 1			
1	Pages 1-1 and 1-2	Rewrote the Introduction paragraph to accurately reflect the content of Chapter 1, and added a brief explanation for the new Chapter 8. Updated CG-9 “Vision.” Removed Reference to Appendix A, and introduced the MSAM Handbook (removed all references to Appendix A).	Accuracy
2	Page 1-2, Sect. B	Incorporated CG-9 role as “system integrator for all Coast Guard Major Systems Acquisitions” and updated CG-9 vision statement.	Reflects current CG-9 role and vision statement and reestablishes Coast Guard authority.
3	Page 1-3, Para B.2	Expanded list of acquisition knowledge references to include the DHS Connect and CG-924 portal sites.	Updated to provide more references for acquisition knowledge.
4	Page 1-5, Sect. D	Updated the Coast Guard Acquisition Leadership Team membership and purpose/scheduling of ADE and Annual Review briefings.	Updated to reflect accurate titles and roles of the Coast Guard Acquisition Leadership Team.
5	Page 1-6, Fig. 1	Updated Figure 1 of Coast Guard Acquisition Review Organization.	Accuracy
6	Page 1-6, Sect. E	Added, “The Acquisition Directorate’s SOP-9-5 (series), Non-Contracting Acquisition Workforce Certifications, provides specific policies and provides procedures and guidance for obtaining Acquisition Workforce Certifications for non-contracting acquisition career fields.”	Accuracy and Completeness

Significant Changes			
	Chapter/Section	Description of Change	Reason for Change
7	Page 1-7 Sect. E	Changed numbered lists into two sets of bulleted lists to reflect latest guidance promulgated by ALCOAST 011-12, dated 09 January 2012. The revised listing shows which acquisition career fields DHS is the certifying authority for, and which acquisition career fields the Coast Guard AWCB establishes certification standards for.	ALCOAST 011-12, dated 09 January 2012.
8	Page 1-7 Sect. E	Added reference to DHS Acquisition Workforce Policy #064-04 (series)	Clarity
9	Page 1-8 Sect. F	Added requirement to capture lessons learned in the Acquisition Lessons Learned Database. This requirement is repeated in several places in the document.	New lessons learned database was developed.
10	Page 1-9 Sect. F	Added requirement to update nPRS and IMS and added more detail to Configuration Management requirements.	Change to DHS reporting requirements.
11	Page 1-10, Sect. H	Changed first paragraph to accurately depict PgM authorities and responsibilities related to managing programs. Added description of CG-93AL role.	Defined program as a specific portfolio of functionally similar systems to remove ambiguity.
12	Page 1-10, Sect. H	Removed PgM Roles and Responsibilities table.	Removed duplication.
13	Page 1-11	Replaced “Coordinating funding for P-ORD, ORD and CONOPS” to reflect “Coordinating the [AC&I] portion of funding for P-ORD, ORD and CONOPS...”	Clarity
14	Page 1-12	Added requirement to exercise Component Approval authority within nPRS.	Change to DHS reporting requirements.
15	Page 1-12	Expanded listing of PgM responsibilities to include role in the development of new start project.	Accuracy and Completeness
16	Page 1-13, Sect. I	Added additional information on APO	New organization.

Significant Changes			
	Chapter/Section	Description of Change	Reason for Change
17	Page 1-14, Sect. J	Added the following as the first bullet under Sponsors responsibilities, “Work with Commandant (DCO-81) and Assistant Commandant for Policy and Plans, Commandant (CG-5R/P) in planning and conducting MA and in creating the MAR”	Accuracy and Completeness
18	Page 1-15, Sect. J	Added requirement to work with Commandant (CG-1B3) and FORCECOM on crew performance requirements.	Clarification.
19	Page 1-15, Sect. K	Added designation of CG-2 as Technical Authority for intelligence systems and capabilities.	New policy (VCG memo).
20	Page 1-16, Sect. L	Added paragraph describing the roles and responsibilities of the Systems Integration Team.	Per CG-9 Memo, SIT Charter, 01 December 2011.
21	Page 1-16, Sect. M	Added new section “M: Chief Acquisition Officer” describing the CAO roles and responsibilities.	Clarity
22	Page 1-17, Sect. M	Moved two CAE Roles and Responsibilities to CAO Roles and Responsibilities. Specifically, designing policies and processes to ensure the best qualified persons are selected for Acquisition Management positions, and ensuring that Acquisition personnel meet DHS mandatory standards (education, training, and experience).	Per Coast Guard Acquisition Management Roles and Responsibilities, COMDTINST 5000.12
23	Page 1-17, Sect. M	Identified Commandant (CG-6) as EOC Chair for non-major IT projects.	Updated EOC Charter, 04 October 2012
24	Page 1-18, Sect. N	Clarified the position of the Chair of the EOC	Clarity
25	Page 1-19 Sect. O	Updated CAE description	Clarity
26	Page 1-19 Sect. O	Updated CAE responsibilities and defined CAQO	DHS PARM, D102-01-001
27	Page 1-19 Sect. O	Added requirement for CAE to exercise control of component Approval authority for CASR data.	New DHS reporting requirement.

Significant Changes			
	Chapter/Section	Description of Change	Reason for Change
	Chapter 2		
28	Page 2-2, Para A.2	Clarified the ADA for Level 1 and 2 Major System Acquisitions.	Per DHS memorandum regarding departmental designations, dated 04 April 2011.
29	Page 2-2, Para A.2	Under Level 1 (Major), inserted footnote that indicates a requirement to have DHS PARM approve LCCE's.	Per DHS CPO Memo, Program LCCE Validation Process, 06 May 2010.
30	Page 2-3, Table 2	Changed "CG-01" to "DCMS." Also changed to reflect CG-6 Chair for Non-Major IT.	Accuracy
31	Page 2-4, Para A.4 First Bullet	Changed description of roles to "...Mission Analyses and Operational Analyses are performed by the Office of Performance Management and Assessment (DCO-81), Commandant (CG-5R/P) and the operating program Sponsor to identify Coast Guard capability gaps." Also added language to ensure integration with Coast Guard Force Readiness Command (FORCECOM).	Accuracy of roles and responsibilities to include DCO-81 and FORCECOM.
32	Page 2-4, Para A.4. Second Bullet	To clarify that the MAR is approved before the Need Phase.	Accuracy
33	Page 2-5, Para A.5. First Bullet	Added optimal timing of ADE-0, and inserted sentence to the end of the paragraph to include that ADE-0 is a Coast Guard review only and that it does not advance to DHS ADA.	Accuracy
34	Page 2-6, Para A.5. Third Bullet	Updated to reflect DHS guidance regarding exceeding LRIP by 10%.	D102-01-001
35	Page 2-6, Para A.5. Fifth Bullet	Moved HSAM Subchapter 3007 requirements to Acquisition Plan sections (pp 2-14).	HSAM Subchapter 3007

Significant Changes			
	Chapter/Section	Description of Change	Reason for Change
36	Page 2-6, Para A.5. Seventh Bullet	Change ADE-4 paragraph to read as follows: “This Coast Guard unique ADE occurs when system production is approaching completion and the acquisition project is ready to disestablish and transition the management of the delivered asset(s) to the Support Program Manager.”	Clarity
37	Page 2-7, Sect. B.1	Changed language to reflect that DCO-81 has lead role in initiating the mission analyses with support from technical and acquisition authorities.	Consistency
38	Page 2-8, Para B.2	Added DCO-81 in the development of the MAR process and added FORCECOM as a supporter of the development of MARs.	Consistency
39	Page 2-9, Para B.5	Added CONOPS, AStr, and CDP to the list of documents approved for preparation following an ADE-0 Review. Updated to show DCMS makes ADE-0 decision and that acquisition resources may be requested.	Consistency and Accuracy
40	Page 2-10 Para C.1	Added FORCECOM to MNS inputs, and explained and defined P-MNS.	Organizational change and DHS Instruction/Guidebook 102-01-001
41	Page 2-11, Sect. C	Deleted language referring to the development of the Project Acquisition Plan from the Need Phase and moved it to the Analyze/Select Phase.	The Project AP is developed in Analyze/Select Phase and fits better in that section.
42	Page 2-11, Para C.1	Expanded information about CONOPS, re-worded paragraph to expand explanation of CDP preparation, inserted note on use of PUB 7-7 as guidance in developing P-MNS, MNS, CONOPS, P-ORD, and ORD documentation.	Accuracy and Completeness

Significant Changes			
	Chapter/Section	Description of Change	Reason for Change
43	Page 2-12, Para C.2	Changed language in Need Phase Activities table to accurately reflect Sponsor Representative's actions regarding the Affordability Assessment; to reflect latest guidance on PM/PgM Activities and Enterprise Architecture Activities.	The Preliminary Affordability Assessment must be updated in order to prepare the initial Affordability Assessment. - HSAM Appendix H, Subchapter 3007.102(2) - DHS Instruction/Guidebook 102-01-001 - DHS EAB Governance Process Guide - OMB Circular A-11
44	Page 2-13, Table 4	Expanded list of Need Phase Documentation to include initial AStr/Brief (prepared by PM, approved by CG-9) and Exhibit 300 (prepared by Sponsor and approved by CG-82).	Consistency and Accuracy
45	Page 2-14, Para D.1	Changed language in paragraph to include development of the CEBD, LCCE, ICE, and PLCCE.	Consistency and Accuracy
46	Page 2-14, Para D.1	Changed language regarding the timeframe for which the Independent Logistics Assessment (ILA) must be performed prior to ADE-2 so that it is consistent with the COMDTINST 4081.19.	The ILA is performed no later than 2 months prior to ADE-2 vice 4 months prior to ADE-2.
47	Page 2-14/15, Para D.1	Updated guidance on AStr to reflect Acquisition Plan requirements.	HSAM Appendix H, Subchapter 3007.102(2) DHS Instruction/Guidebook 102-01-001
48	Page 2-15, Sect. D.1	Added Intelligence Support Planning	New requirement.
49	Page 2-16, Para D.2	Changed first sentence of Sponsor Representative Activities to state, "With inputs from FORCECOM and other members of the ORD IPT, prepare Preliminary..."	Consistency

Significant Changes			
	Chapter/Section	Description of Change	Reason for Change
50	Page 2-18, Para D.3	Added "Defined the requirements for the asset or system in a P-ORD/ORD" to list of Analyze/Select Phase Accomplishments.	- DHS Instruction/Guidebook 102-01-001 -
51	Page 2-19 Para D.3	Updated guidance on ILA submissions.	Coast Guard Independent Logistics Assessment (ILA), COMDTINST 4081.19
52	Page 2-19, Table 5	Expanded Analyze/Select Phase documentation list to include DHS approval required for PLCCE (for Level 1 projects).	Consistency with text
53	Page 2-21, Sect. E.1	Moved LRR requirement to comply with CI 4081.3 (series) to P/D/S Phase	Accuracy
54	Page 2-21, Sect. E.1	Added detailed product design (75-90%) maturity requirement.	Address DHS OIG concern in report 12-68.
55	Page 2-22, Para E.1	Added guidance regarding LRIP 10%, "Rationale for quantities greater than 10% of the full production quantities identified in the acquisition plan must be documented." Clarified language to show CDR is not supposed to coincide with PRR per DHS SELC process.	DHS Instruction/Guidebook 102-01-001, Section VI.G.7
56	Page 2-23, Para E.2	Added "In coordination with FORCECOM" at beginning of sentence in list of Sponsor Representative Activities.	Accuracy and Completeness
57	Page 2-23, Para E.2	Added Frequency Assignment/Spectrum Authorization	Accuracy and Completeness
58	Page 2-23, Para E.2	Added "Update the Project SELC Tailoring Plan (as necessary)" to the list of SELC Activities.	Accuracy and Completeness
59	Page 2-23, Para E.2	Added update PLCCE for ADE-3 to list of PM activities.	Accuracy and Completeness

Significant Changes			
	Chapter/Section	Description of Change	Reason for Change
60	Page 2-24, Para E.2	Added OTRR and CDR (75-90%) "Rule of Thumb" to list of SELC activities.	- DHS Instruction/Guidebook 102-01-001, Appendix B - DHS Directive 026-06 (Rev 00)
61	Page 2-26 Para E.2	Updated Enterprise Architecture Activities information regarding Exhibit 300s	OMB Circular No. A-11
62	Page 2-27	Add "Update AP" to Obtain Phase Documentation	Accuracy
63	Page 2-30, Para F.2	Added "Update ILSP (as needed)" to list of Project Management Activities.	Accuracy and Completeness
64	Page 2-31, Para F.2	Added "Support PIR" to list of SELC Activities.	The PIR is a SELC requirement for this phase.
65	Page 2-31, Para F.2	Added "Complete Manpower Requirements Analysis (MRA)" to list of Human Systems Integration Activities.	Manpower Requirements Analysis is required for ADE-4 and should be completed in the Produce/Deploy phase if needed.
66	Page 2-32 Para F.2	Updated Enterprise Architecture Activities information regarding Exhibit 300s	OMB Circular No. A-11
67	Page 2-32, Para F.3	Expanded the list of Produce/Deploy Phase Significant Accomplishments to include the completion of PTP and MRA.	Accuracy and Completeness
68	Page 2-32, Table 7	Expanded the list of Produce/Deploy Phase Documentation to include Project Responsibility Transfer Letter (PRTL) as a CG-924 task.	Accuracy and Completeness
69	Page 2-33, Para F.6	Updated explanation of Operational Analyses to provide better linkage with the PIR and involvement of DCO-81 in the process.	Clarity
70	Page 2-34, Para F.7	Re-worded last Human Systems Integration activity concerning usability results to ensure incorporation of usability results and feedback into annual OAs and other analyses.	Clarity
71	Page 2-34, Para F.8	Deleted "Conducted PIR" from the list of Support Phase Significant Accomplishments.	Conducting the PIR is part of Produce/Deploy Phase.

Significant Changes			
	Chapter/Section	Description of Change	Reason for Change
72	Page 2-36, Figure 9	Changed to correct visual ambiguities and reflect updated acquisition life cycle planning documentation.	DHS Instruction/Guidebook 102-01-001, Appendix B
	Chapter 3		
73	Page 3-2, Sect. B	Removed reference to the Systems Engineering Working Group (SEWG), and removed the hyperlink to their web page.	The SEWG was dissolved, and no longer exists.
74	Page 3-4, Fig. 12	Updated to reflect current review approval authorities.	Accuracy
75	Page 3-7, Sect. D	Updated to reflect PSTP review entry criteria, completion of approval letters, and the requirement to add completion letters to nPRS. Additionally, showed Operational Authority review of PSTP.	DHS requirements
76	Page 3-7/8, Sect. E	Updated list of primary functions available from Commandant (CG-926); e.g., changed Cost Analysis to Cost-Benefit Analysis (CBA), and added LCCEs.	Accuracy and Completeness
77	Page 3-9, Sect. F	Expanded explanation of RDT&E capability.	Accuracy and Completeness
78	Page 3-10, Sect. G	Updated the 'Documentation' paragraph describing the need to document the role of the Technology Demonstrators in the CDP or PSTP. Also added need to brief DHS DOT&E on emergent tech demonstrators not captured in CDP or PSTP.	Accuracy and Completeness
	Chapter 4		
79	Page 4-2	Added requirement for P-MNS.	Meet DHS policy
80	Page 4-2/3	Revised the ORD and Specifications section for clarity.	Clarity and correctness
81	Page 4-6	Updated listing of Roles and Responsibilities from VCG to DCMS.	Accuracy
82	Page 4-6, Sect. B & C	Updated to reflect change from VCG to DCMS ADE-0 review. Also added DCO-81 and FORCECOM.	Accuracy
83	Page 4-7, Sect. D	Expanded the MNS Discussion paragraph to include need for sufficient detail to justify an acquisition start; explained P-MNS.	DHS Instruction/Guidebook 102-01-001

Significant Changes			
	Chapter/Section	Description of Change	Reason for Change
84	Page 4-8, Sect. E	Updated discussion of CONOPS	Accuracy and Completeness
85	Page 4-12	Added discussion of budgeted and unbudgeted increments	Accuracy and Completeness
86	Page 4-12	Added FORCECOM to ORD IPT	Organizational change
87	Page 4-15, Sect. F	Updated Roles and Responsibilities for ORD reviews to include TAs.	Accuracy
88	Page 4-15, Sect. G	Clarified definitions of “Specification” and “Statement of Work.”	Clarification
	Chapter 5		
89	Page 5-1	Expanded introduction to update documents that DHS will be a member of the associated IPT and to include verbiage regarding CG-924 staff responsibilities.	Updated policy
90	Page 5-1, Sect. A	Added language that CDP is approved up to 90 days after ADE-1 if no PM had been assigned.	Updated policy
91	Page 5-2, Sect. B	Added language to Purpose that a Summary Schedule is generally developed in support of the AP. Updated third paragraph with latest references to HSAM regarding AP submissions guidance. Added to PM Roles and Responsibilities to “Develop Summary Schedule.”	HSAM Subchapter 3007.103(h)(1)(ii) and (iii)
92	Page 5-3 and 5-4	Updated to include role of FORCECOM in HSI	CG organization change
93	Pages 5-4 and 5-5, Sect. C	Added requirement to comply with COMDTINST 6500.1 if project testing requires human test subjects.	New policy
94	Page 5-6, Para D.2	Clarified the requirement for three viable alternatives plus the status quo solution for the Alternatives Analysis.	Clarification
95	Page 5-7, Para D.3	Changed organization invited to participate in the SPR from “DHS APMD” to “DHS PARM”.	DHS organization change

Significant Changes			
	Chapter/Section	Description of Change	Reason for Change
96	Page 5-8, Sect. E	Added language that the Project LCCE will be "...updated whenever major project changes occur, as needed to support a revision to the APB, and support an ADE-3 decision."	Clarification
97	Page 5-8, Sect. E	Changed DHS role from "review" to "approve" PLCCE. Added DHS Instruction/Guidebook 102-01-001 reference and hyper-link to the PARM web site.	DHS organization change; DHS Instruction/Guidebook 102-01-001, Appendix I
98	Page 5-9, Step 1A	Clarified that a trade-off of a key performance parameter objective level with costs must be documented in the LCCE.	Clarification
99	Page 5-9, Step 1A	Required identification of MASI costs.	Clarification
100	Page 5-9, Step 1A	Added requirement to team with additional offices when developing LCCEs.	Clarification
101	Page 5-10, Step 2 and Roles & Responsibilities	Updated text regarding the process for the annual review of the PLCCE. Added new information on LCCE scorecard use by new PARM CE&A CoE. Clarified to show that the PLCCE is approved by DHS PARM (Risk Analysis Division).	DHS PARM CE&A CoE; GAO Cost Estimating and Assessment Guide
102	Page 5-11, Sect. F	Clarified APB breach and added information on where else to find information on threshold and objective values.	Clarification
103	Pages 5-11 and 5-12, Section F and Table 9	Updated cost breach guidance.	Accuracy
104	Page 5-12, Table 10	Inserted new table to show comparison of USCG/DHS breach conditions, and added reference to delegation memo from CCG to VCG regarding congressional breach reporting.	Coast Guard Authorization Act 2010; and CG-00 memo 5402 of 16 Feb 2012
105	Page 5-13, Sect. G	Expanded Discussion paragraph to include a more detailed explanation of the project planning process as well as the significance of the PMP. Changed requirement from "update annually" to "update or validate" annually.	Accuracy and Completeness

Significant Changes			
	Chapter/Section	Description of Change	Reason for Change
106	Page 5-14, Sect. H	Expanded Discussion paragraph to include reference to the Red Team and SOP-924-1.	Additional Information
107	Page 5-14	Updated information and added link to CG Portal resources: Coast Guard Practical Guide to Contracting.	Coast Guard Practical Guide to Contracting
108	Page 5-15, Sect. H	Added new information to list of KO responsibilities.	DHS Source Selection Guide
109	Page 5-17, Sect. J	Amended section to clarify that the Test Management Oversight Team refines the COI's.	Clarification
110	Page 5-17, Sect. J	Changed Discussion paragraph to include reference to DHS T&E directive.	Accuracy
111	Page 5-18, Sect. J	Amended section to clarify who selects the OTA.	Clarification
112	5-19, Sect. J	Added requirement for CG-926 to conduct IV&V on TEMP.	New requirement
113	5-22, Sect. K	Added reference to ILA and LRR	Clarification
114	Pages 5-22 and 5-23, Sect. K	Updated ILS Manager Responsibilities to clarify responsibility for planning and implementing the transition to sustainment. Added PM and CG-8 Roles and Responsibilities. Added requirement for CG-93AL to conduct IV&V on ILSP.	Accuracy and Clarification
115	Page 5-24, Sect. L	Clarified CM responsibilities for assets that are in both production and sustainment.	Clarification
116	Page 5-28, Sect. N	Added APO responsibilities for DP.	New organization
117	Page 5-29, Sect. P	Added approved PTP date.	Clarification
	Chapter 6		

Significant Changes			
	Chapter/Section	Description of Change	Reason for Change
118	Page 6-3, Sect. B, NOTE	Explains Coast Guard policy regarding DHS Instruction/Guidebook 102-01-001, which calls for development of a Component P-MNS, to support identification of potential multi-Component or multi-Department mission needs.	Implement DHS Policy
119	Page 6-4, Sect. C	Updated Exhibit 300 guidance.	OMB Circular A-11
120	Page 6-6, Sect. E	Clarified the role of the various documents involved with the Affordability Assessment.	Clarification
121	Page 6-6, Sect. E	Provided additional details for completing an Affordability Assessment.	Clarification
122	Page 6-7	Added Sand Chart	Implementation of GAO "Best Practice"
Chapter 7			
123	Page 7-1, Sect. B	Updated Project reporting guidance.	Implement DHS Policy
124	Page 7-2, Table 11	Added FORCECOM to EOC membership and showed addition of CG-6 as chair for non-major IT projects.	Accuracy
125	Page 7-4, Sect. C	Added Coast Guard and DHS TechStat reviews.	New requirement
126	Page 7-5, Sect. C	Updated discussion of DHS ARP and Acquisition Review Boards (ARB).	Clarification
Chapter 8			
127	All	New Chapter, added from former Part I on Document Review and Approval Process in previous version of MSAM, Appendix A.	Instruction Manual revision
128	Page 8-1, Sect. A	Added new paragraph outlining initial document development efforts.	Clarity and correctness.
129	Page 8-1, Table 13	Added PLCCE to list of documents requiring DHS approval.	DHS requirement

Significant Changes			
	Chapter/Section	Description of Change	Reason for Change
130	Page 8-1/2, Table 13	Added footnote “2” at the end of the “Mission Need Statement” referencing DHS Instruction/Guidebook 102-01-001, which calls for development of a Component P-MNS.	Clarification
131	Page 8-3, Sect. B	Changed language to clarify intent of Concurrent Clearance.	Clarification
132	Page 8-4, Fig 22	Many changes to table including showing “O” for originator and adding a column for FORCECOM (put “C’s” in that column for the following documents: MNS, CONOPS, ORD, ILSP, TEMP, DP, PTP, and DT Plan). Updated footnotes.	Accuracy and Completeness
133	Page 8-5, Sect. B, Step 2.c	Replaced links embedded in body with reference to Appendix B with CG Portal link.	Accuracy
134	Pages 8-4 thru 8-6	Expanded paragraphs to better explain the Document Review and Approval Process. Added deadlines for document processing (see steps 3 & 10).	Clarification and to meet intent of VCG “streamlining” guidance
135	Page 8-12, Sect. C	Added the following note after sub-paragraph 5 that begins, “Documents that require DHS approval should be submitted to DHS for approval no later than 45 days prior to the DHS ADE/ARB.”	HSAM 3007
136	Page 8-13, Sect. D	Added sentence to show expanded guidance on "revalidated" documents.	Accuracy and Completeness